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104th Congress }  
2d Session }

JOINT COMMITTEE PRINT

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CHINA'S ECONOMIC FUTURE:  
CHALLENGES TO U.S. POLICY

STUDY PAPERS

SUBMITTED TO THE

JOINT ECONOMIC COMMITTEE  
CONGRESS OF THE UNITED STATES



AUGUST 1996

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## LETTER OF TRANSMITTAL

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SEPTEMBER 25, 1996

*To the Members of the Joint Economic Committee:*

I am hereby transmitting for use by the Joint Economic Committee, Congress, and the public a study assessing the economy of the People's Republic of China entitled, *China's Economic Future: Challenges to U.S. Policy*. Given the current state of U.S.-China relations and Hong Kong's accession in 1997 the study will provide to the U.S. Congress and other interested parties a useful tool in guiding foreign and economic policy toward China. Congressional Research Service has provided us with an informative, comprehensive and focussed study at an important time in the history of U.S.-China relations.

Robert N. Mottice, Executive Director of the Joint Economic Committee worked very closely with John P. Hardt, Senior Specialist in Post-Soviet Economics and Luke S. Colton intern at CRS in developing the design and organization of the study. We are very grateful to the many government and private sector professionals who met our demanding schedule of publication before the convening of the 105th Congress. We especially appreciate that the contributors from the private sectors were pro bono.

Sincerely,

CONNIE MACK,  
*Chairman.*

## LETTER OF SUBMITTAL

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THE LIBRARY OF CONGRESS,  
CONGRESSIONAL RESEARCH SERVICE,  
Washington, DC, September 11, 1996.

Hon. CONNIE MACK  
*Chairman, Joint Economic Committee*  
*Congress of the United States*  
*Washington, D.C.*

DEAR MR. CHAIRMAN: I am pleased to submit to you a collection of papers entitled, "China's Economic Future: Challenges to U.S. Policy." The study was directed by John P. Hardt, Senior Specialist in Post-Soviet Economics. Many CRS and other Library of Congress personnel, as well as Government and private specialists contributed significantly to the project. The authors from the private sector made their contributions pro bono. In particular, I would like to note that Luke S. Colton coordinated the publication during his internship at CRS, with editing advice and production assistance furnished from Karen Wirt and Mary C. Maddox of the Congressional Research Service, and John Bartoli of the Government Printing Office.

Our Advisory Committee was most helpful in structuring and arranging participation in the volume. While most of the Advisory Committee were also authors, special appreciation is also due to Dean Harry Harding of George Washington University, Ambassador Arthur Hummel (retired), Leo Orleans, Library of Congress (retired), and Professor Nicholas Lardy of the University of Washington and Brookings Institution for their advice and counsel.

We trust that the analyses and information contained in this study will be of value to the Joint Economic Committee, as well as to the Congress in general, and to the broad public interested in that region of the world.

Sincerely,

DANIEL P. MULHOLLAN,  
*Director.*

# CONTENTS

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	Page
Letter of Transmittal .....	III
Letter of Submittal .....	V
Executive Overview—John P. Hardt and Robert Mottice .....	IX

## I. THE CONTEXT FOR ASSESSING CHINA INTO THE 21ST CENTURY: KEY THEMES

The Pattern and Logic of China's Economic Reform—Barry Naughton .....	1
Politics and Economics in China—Kenneth Lieberthal .....	11
Some Historical Reflections on Chinese Economic Reforms: From Wang Mang to Deng Xiaoping, 9 A.D. to the Present—Chi Wang .....	16
A Mid-Course Assessment of China's Economic Reform—Hang-Sheng Cheng ..	24
Prospects for China's Integration into the Global Economy—Dwight H. Perkins .....	34
The Security Context for Sino-ASEAN Economic Relations—Allen S. Whiting .	41
Thinking About China—James J. Przystup .....	47
Engagement or Containment: A Clear Choice—Cheryl L. Hart .....	53

## II. DOMESTIC ECONOMIC MODERNIZATION AND REFORM

China's Transition to a Market Economy: Back to the Future, Mired in the Present, or Through the Looking Glass to the Market Economy?—Robert F. Dernberger .....	57
Chinese Economic Growth: Explanations and the Tasks Ahead—Jeffrey D. Sachs and Wing-Thye Woo .....	70
China's Reforms in the Wider Context of Transition—Alan Gelb .....	86
China: Economic Prospects to 2010—Virendra Singh and Narendra Singh .....	101
An Assessment of China's Agricultural Economy: 1980–2005—Frederick W. Crook .....	124
How Far Along is China in Developing Its Food Markets?—Colin A. Carter and Scott Rozelle .....	139
Crises and Institutional Evolution in China's Industrial Sector—Wing-Thye Woo .....	162
Ownership Reform as a Process of Creative Reduction in Chinese Industry—Gary H. Jefferson and Inderjit Singh .....	176
China's Financial Reform and Monetary Policy: Issues and Strategies—Hang-Sheng Cheng, H. Gifford Fong, and Thomas Mayer .....	203
Law Reform and China's Emerging Market Economy—Pitman B. Potter .....	221
China's Energy Future: The Role of Energy in Sustaining Growth—Jonathan E. Sinton, David G. Fridley, and James P. Dorian .....	243
The New Revolution in China: Telecommunications and Societal Change—Christopher Szymanski .....	270
The Chinese Transportation System: A Bottleneck or an Engine of Growth?—Luke S. Colton and Wayne M. Morrison .....	280
Chinese Military Modernization: Motives, Objectives, and Requirements—Michael D. Swaine .....	320
China: Population Dynamics and Economic Implications—Judith Banister .....	339
Social Development, Quality of Life and the Environment—Carl Riskin .....	361
The Impact of Township, Village and Private Enterprises' Growth on State Enterprises Reform: Three Regional Case Studies—Anthony Y.C. Koo and K.C. Yeh .....	381
Village Elections in China: Experimenting with Democracy—Amy B. Epstein .	403

## VIII

Page

### III. EXTERNAL ECONOMIC RELATIONS

Greater China: Economic Dynamism of the Overseas Chinese—James R. Lilley and Sophia C. Hart .....	423
China and the World Trade Organization—George D. Holliday .....	451

### IV. SINO-U.S. ECONOMIC RELATIONS INTO THE 21ST CENTURY

Major Issues in U.S.-China Commercial Relations—Wayne M. Morrison and John P. Hardt .....	471
Seeking Integration and Deterrence—The U.S. Role in Shaping China's Future—Robert G. Sutter .....	499
China and U.S. Policy: Future Decision Points—Kerry B. Dumbaugh and Richard P. Cronin .....	515

## EXECUTIVE OVERVIEW

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### CHINA'S ECONOMIC FUTURE

By John P. Hardt and Robert N. Mottice\*

#### HIGHLIGHTS

Congressional interest has been escalating in China's economic future and its implications for commercial, economic, and foreign policy interests of the United States. The legislative agenda for 1997 will include an increasing number of legislative and policy concerns related to United States-Chinese relations. Chinese leaders, in turn, are developing closer ties with the United States, including leaders of the U.S. Congress.

A broad commitment and consensus supporting a policy of transition to a market system made in 1978 due to impressive economic performance has been periodically reinforced under Deng Xiaoping. By 1996 a rudimentary market system with limited but significant degree of political pluralism and a nascent rule-of-law was entrenched and legitimized. Growth performance from 1978-1996 was centered on the establishment of market-friendly institutions and the abandonment of market-unfriendly ones, which brought about increases in rural agricultural productivity as well as higher industrial productivity and competitiveness. Substantial economic improvements were attainable in the Chinese transition under a gradual, dual track approach. This remarkable growth was facilitated by negative and positive elements of the Maoist legacy: each of the key areas were ripe for improved performance resulting from removal of constraints to output imposed during the Maoist period; absence of a foreign debt or hyperinflation burden that would have impaired effective transition to the market has been a clear benefit.

Radical political transition was less evident during the Deng period as even modest changes initiated in pluralism and rule-of-law were muted so they did not appear to directly challenge the old political system and the rights and privileges of conservative stakeholders of the old regime. Still, de facto pluralism, decentralization, and establishment of rule-of-law institutions supporting marketization were permitted on grounds that they supported market reform and improved economic performance. The momentum and success of transitional economic and political reform may con-

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\*John P. Hardt is Senior Specialist in Post-Soviet Economics, Congressional Research Service and editor of the volume; Robert N. Mottice is Executive Director of the Joint Economic Committee. Assessments herein profited from analyses by authors in this volume. These authors do not necessarily concur in our views. See Table of Contents for authors' articles and page numbers.



tinue and escalate but reversals are certainly not impossible. With acceptance of political and legal change to support economic change the momentum developed may make the transitional process increasingly more sustainable, even with the passing of its major advocate—Deng.

The post-Deng 1996–2010 transition probably represents more difficult policy decisions but provides greater opportunities for quantitative and qualitative improvement in performance. Impressive projections to 2010 based on straight line projections may seriously understate future performance possibilities. With effective transition to a democratic market system under a rule-of-law, higher living standards and earlier establishment of China as an economic power is possible. While a fuller democratic market system development under a rule-of-law is the model applied in the West for successful transitions, each can be expected to have unique variations in substance and timing relating to their cultural and historical experience.

Optimistic projections of transition to 2010 would postulate a more advanced market and democratic system under a rule-of-law to take full advantage of China's opportunities. Policy decisions pressing for fuller transition could bring about an optimistic outcome. The optimistic development may culminate the best opportunity in Chinese history to reform and bring prosperity to the country as a whole that always in the past was frustrated by the self-interested monopolistic bureaucracy that frustrated all serious Chinese reform efforts over the centuries. Now as in the past the argument against radical change is fear of political instability, but it also reflects concern over loss of power and privilege of those adversely affected by change.

In this critical time for Chinese leadership, continuation of the domestic momentum toward transition may be reinforced by positive external support and cooperation. The United States, in its relations with China, may leverage full Chinese commitment to transition facilitated by joining the global community and limit the likelihood of retreat to a more protectionist, confrontational China.

#### DENG POLICY AND PERFORMANCE 1978–1996 IMPRESSIVE BUT TRANSITION NOT COMPLETE

Improved economic performance in 1996 benefited from its starting point in 1978. The Maoist system left a heritage favorable to economic change and growth. Major sectors were constrained by aspects of a centrally planned and controlled economic system: the counterproductive commune system in agriculture, persistent constraint on output of consumer goods and service industry development, an undeveloped fiscal and monetary system, and generally unexploited advantages of a more open commercial system. Significantly, the Chinese transition under Deng did not suffer from the initial crises of foreign debt management and hyperinflation that the Eastern European economies were burdened with. These favorable initial conditions permitted the successful, gradual, dual track approach to reform in China. China is now a rudimentary market economy with some degree of pluralism and a nascent rule-of-law with good prospects of a consistently high growth rate. Favorable initial conditions facilitated significant progress in core elements of

market transition: stabilization, liberalization, privatization, institutionalization of market-friendly institutions and controlled openness. Progress in pluralism in terms of decentralization of governance, encouragement of grass roots democratic development, significant progress in rule-of-law in establishing fiscal, monetary and other institutions fostered free market development but not to date without continuing monopolistic constraints and corruption.

Economic performance measured by rising living standards has been established as a primary objective for change. China's economic growth from a low initial base of development has been remarkable, but the economy is in early stages of development and the quality of life of the Chinese citizen is low, economic futures of workers uncertain, and income increasingly unequal.

Significant integration into Asian trade and investment, especially "Greater China," and increasing commercial relations with the global market system have stimulated growth in domestic output and commerce. At the same time China has become more dependent on the global market, especially on market access to the United States and to the region dominated by ethnic Chinese outside China proper.

Formidable constraints limit economic performance and development of a broader political consensus for a democratic rule-of-law transition. Key problem sectors include agricultural productivity and marketing, large scale industry, all elements of infrastructure outside the special coastal areas, and sectors of the economy unable to compete in the global market without subsidies, protection and reliance on very low wages. Continual limitations on full market development bear primary responsibility for massive under-employment of the rural and urban labor forces. While political legitimacy draws from economic improvement there is still continued reliance on populist authoritarian solutions to maintain political stability and popular support, e.g., deficit financing by subsidies to non-competitive farms and maintenance of unprofitable large scale state-owned industries. Inequity because of preferential treatment to coastal regions and lack of rule of law in the market place corrodes broad popular support.

**CHINA'S ECONOMIC FUTURE: REMARKABLE OR DISAPPOINTING DEPENDING ON SUCCESS IN FURTHER TRANSITION TO A MORE PLURALISTIC MARKET UNDER A RULE-OF-LAW.**

With Chinese leadership commitment to a transitional system they credibly project substantial growth in output per capita, improved living standards, and enhanced economic power in the global marketplace. Their Fifteen-Year prospects from 1996 to 2010 were evaluated by the Wharton Economic Forecasting Associates Group (WEFA):<sup>1</sup>

Our baseline projection indicates that China is expected to almost triple its economy by 2010 to \$2.3 trillion real GDP (in 1990 US\$) from \$633.7 billion in 1995. Real per capita GDP will increase three-fold, from \$521.80 to \$1,635 in 2010. Nominal merchandise exports will surge from \$126.5 billion in 1995 to \$953.2 billion in 2010. Imports will rise

<sup>1</sup> See Singh and Singh below, p. 101.

at a slightly faster pace, increasing from \$108.8 billion in 1995 to \$966.4 billion in 2010.

This forecast is both impressive, considering that past levels of performance, and disappointing in that it falls short of Chinese objectives and opportunities. An average per capita income under \$2,000 places China well below other Asian states such as Japan, South Korea, Taiwan, Singapore, and Hong Kong. The projected per capita income does not reflect the potential anxiety and uncertainty which can arise from jettisoning a failed but incredibly entrenched socialist economic system to make way for a new one based upon economic freedom.

The baseline projection is not a likely outcome. China will probably perform better or worse than the Chinese forecast. An effective transition to a more democratic market system under a rule-of-law and assuming political stability would be the basis of a more optimistic projection. Yet lack of major changes in the key economic areas and lack of establishment of a fuller political and rule-of-law transition would retard growth and validate a more pessimistic forecast.

The policy agenda for the future and the assessments in this volume show that the key economic areas from the Deng period would be relevant to projections of significant change in the future. In each case choices among the economic variables in the future are more complex and synergistic, the political trade-offs more costly in terms of old regime changes. The current success that increasing complexity and evident political and economic trade-offs in the post-Deng period may weigh against the momentum for change and the broader acceptance of the transition toward a fuller democratic market system under a rule-of-law. Deng's reform seems likely to survive his passing, but strong momentum for further transition is not assured. To illustrate the nature and complexity of the policy decisions likely to make major differences in performance, we speculate on the decisions that may determine the variance in outcomes to 2010.

#### CHINESE POLICY AGENDA TO DETERMINE OPTIMISTIC OR PESSIMISTIC OUTCOME

In the development of the transition of the Chinese economy into the twenty-first century there are opportunities for major improvements in performance that would bring improved living standards for the Chinese people and greater economic power in the global economy. Each family of decisions is discussed in the context of moving closer to a democratic market system under a rule-of-law. All policy decisions have significant trade-offs in benefits and costs to important segments of China's leadership and each, including especially expanded political freedoms, are perceived to have some degree of risk.

#### RURAL AGRICULTURE AND INDUSTRY

There is need and opportunity to increase the output and delivery of basic grain crops and lower their cost without subsidies. Increased output and distribution of quality food, e.g., meat, fruits, vegetables, throughout China and abroad would contribute to

major improvements in living conditions. Finally, expansion of consumer goods output and services in rural industry could help satisfy an expanding domestic and export market. A number of reform changes potentially stimulating the rural economy and opening it to market forces would make a significant difference in fulfilling these ambitious opportunities.

- *Liberalization of Prices and Trade.* Although there is strong political pressure for continued populist policies relying on subsidies and budget deficits to keep food prices low and protect the economic survival of unprofitable enterprises, allowing prices to rise to world levels and opening Chinese markets to competition, would stimulate growth.
- *Changes in Ownership Pattern and Control.* The shift from the Maoist commune to peasant control of plots and Township Village Enterprises (TVE) created the environment for a major upsurge in production and living standards of the countryside under Deng. The new opportunities that take advantage of the global revolutions in agricultural productivity through mechanization and chemical usage require conducive outcomes of the current debate on ownership and control in the TVEs. While private property and peasant control of their individual plots is important, large scale, more technically advanced cooperative management could provide more efficient land use. This blend of private ownership and cooperative production development would be compatible with the long Chinese traditional aspirations for land tenure, but would represent a further step away from their Maoist tradition. The dynamic small enterprise rural industries would be more likely to grow if further stimulated by cooperative ownership and would provide major new sources of employment.
- *Stimulation of Infrastructure Development Through Opening to Foreign Investment and Federative Tax Reform.* China's rural economic development is seriously impaired by weak infrastructure in all aspects—transportation, energy, communications. The distribution and supply networks in China are weak even by developing country standards. The World Bank estimate of a \$175 billion investment for the decade ahead to meet the infrastructure needs to sustain growth may be conservative.<sup>2</sup> Domestic and foreign investment will not be adequate without major changes in the tax code and openness to foreign direct and portfolio investment. The privileges and subsidies of the special economic zones in urban coastal areas have stimulated growth, but an open competitive environment extended to China as a whole would produce better national performance. Domestic savings and investment supporting improvement in the rural infrastructure may be more attractive and sustainable with a more equitable and efficient federal tax code.

#### INDUSTRIAL PRODUCTIVITY AND COMPETITIVENESS

The state-owned heavy industries meeting the demands of manufacturing, infrastructure, and defense claimants have a retarding

<sup>2</sup>*Infrastructure Development in East Asia and Pacific*, World Bank, 1995, cited in *The Economist*, 25 May 1996.

effect on growth. These were the former leading sectors, the core of the old command economy system. This industrial sector could, with changes, contribute to economic performance, generate revenue for the state budget, and contribute to the economic performance and competitiveness at home and abroad. Several interrelated policy issues are involved:

- *Corporatization of large scale state-owned enterprises with reformed safety nets.* The large enterprises need to meet a "hard budget constraint," i.e., generate more revenue to cover the costs of their operation. This self financing requirement would end reliance on subsidies from the state budget and reduce the onerous Chinese state budget deficits. Privatization of these enterprises and a prospect of bankruptcy for loss making enterprises is a logical requirement. Two problems restrain this reform: the transition from a perceived socialist safety net and prospects of large scale unemployment resulting from bankruptcy. A number of approaches to reforming the social safety net that have been successful elsewhere in economies in transition may be useful models for China, especially dealing with restructuring and reform of the pension funds. Some combination of state and private pension funds is one variant that has been successful elsewhere. An expanding industrial economy from dynamic growth in the economy as a whole is the best solution to unemployment, although some transitional training and unemployment benefits may be needed.
- *Low Priority for Military Modernization.* The Chinese military has developed a new strategy for the post-cold war, post-Mao world. The requirements of this new strategy are substantial in modern equipment, fire power, and logistics. The capabilities of the economy to meet these requirements under the priorities of the Deng period have been small compared to China's strategic requirements. If the new leadership upgrades military modernization, the requirements to meet strategic needs would mean that defense industries would directly compete with reformed civilian industry, especially sectors that must compete in a global market economy with advanced industrial countries of the West. Ownership and control of large state-owned enterprises would be influenced toward less efficient state control by a change in military priority. Defense support enterprises are the least likely industrial activities to be privatized and corporatized. With a policy change to upgrade military equipment, the demands on the balance-of-payments would be greater. Cash purchases for advanced equipment from Russian or Western sources would compete with imports of high technology civilian products, and the prospects for foreign direct investment and portfolio investment in growth generating sectors would be reduced.

#### INTEGRATION IN EXTERNAL AND DOMESTIC ECONOMY

The future advantages of expanding commerce, i.e., "free trade," by increased global integration in flow of trade, finances, technology, and people would be substantial. A major share of domestic growth under Deng in the privileged coastal regions can be directly

traced to their special integrative relationship with Greater China. Several international policy decisions would facilitate future growth through more integration.

- *Move toward "economic Union" among People's Republic, Taiwan, and other elements of Greater China.* The freer flow of trade, finances, technology, people to and from "Greater China" would be productive. Gains from more integrated overseas Chinese relationships could be significant assuming the overseas Chinese economies retain their free trade regimes. Economically, it brings to mind the growth stimulation of the common market of Europe as it moved toward economic union. Increased trade connections such as cross Taiwan Straits trade and relations, and expansion of Hong Kong as a financial capital of Asia would be part of this pattern. As in other economic unions, issues in which political sovereignty compete with economic growth intrude; the balance of economic independence and sovereign independence would need to be struck. However, some agreement on "one China" and other accommodations could help resolve those constraints.
- *Accession and active participation in World Trade Organization, International Monetary Fund, and World Bank family of institutions.* Active participation in the Bretton Woods and other international economic organizations could facilitate the effective integration of China into the global market with acceptance of rules of commercial behavior that encourage the growth associated with openness. The benefits of openness and unrestricted commerce based on comparative advantage carry over to the domestic economy and can improve internal trading patterns. Not only does a vibrant domestic economy compete better in the global economy but it also is inclined to accept and implement reciprocal understandings such as control of intellectual property in its own interest.
- *Extension of Special Economic Zones to all of China.* The special economic zones have been successful because of openness to the global economy and market reform of their productive facilities. Independence of central state control and financial burdens have also contributed to success. This special relationship with Greater China has been an extension domestically of integrative development. The further integration would lead to positive stimulation from an open market extended to the rest of China. Integrating the special zones into the economy as a whole would be a daunting task but the potential in enhanced growth would be substantial.

#### INSTITUTIONALIZATION: ESTABLISHMENT OF MARKET-FRIENDLY INSTITUTIONS AND LEGAL FRAMEWORK

As monetizing the economy was an early step in transition to the market, the need for rule-of-law in financing and monetary affairs has been important. The legal and regulatory framework of a market system requires replacement of the rule of the party bureaucracy—the rule-of-men—with the rule-of-law necessary for efficient and equitable operation of a democratic market system. In an environment that lacks efficiency and equity, the residual elements of

the old system permits, even encourages, a climate of crime and corruption. Partial steps have been taken to establish key institutions but characteristically the developments fall short of needs to directly and explicitly change the old system. Caution is again justified by concern over stability but changes are more often resisted because of shifts in individual or group powers. An agenda of institutional change would include:

- *An independent central bank with efficient private commercial banking system.* Creation of a stable currency free from political influence is critical. An independent central bank or currency board can ensure that a stable monetary environment, which is necessary for a growing market economy, can exist. If an independent central banking system is chosen, it must also have a supervisory role over private, competitive commercial banks to assure effective monetary policy. The lack of monetary reform permits selective control by political intervention and fosters corruption.
- *A federative, modern tax code modelled in rate and structure after the Hong Kong system.* Indeed, China should move quickly toward replicating the Hong Kong tax system. Local and federal mandates and revenue raising capabilities should be better correlated. A revenue system should be efficient in collection and bear as little retarding burden on growth as possible. This institutional distinction of responsibility and accountability is not observable in the present system.
- *A workable civil code to establish market rules and accountability.* Private property is favored in economic transition as it encourages increased accountability and responsibility. To the extent that the economy is privatized, rules on ownership, contracts, and other legal instruments are essential.
- *Regulatory agencies to provide rules of market in both the state and private sector.* Securities and exchange, consumer protection, environmental protection, are all rules-driven activities that affect quality of life and deter crime, corruption, and inequality.
- *Judicial review of rule-of-law in economic crime and civil actions.* Existence of civil, commercial, tax, and other codes are not enough as incentives to assure effective market functioning. Some degree of parliamentary oversight and judicial review is essential, otherwise the political risk to commercial relations is likely to be too high.

#### SINO-UNITED STATES RELATIONS INTO THE TWENTY-FIRST CENTURY

Leadership in the United States and China appear to be moving more toward active engagement with each other. Summitry and structured dialogues in key areas of relations have been initiated and may be projected on a bipartisan basis after elections in the United States and change of leadership in China. A number of events may be future decision points in formulating the new relationship and approaches to specific issues. How this revitalized relationship will affect the relative assessments of national interests on both sides and appropriate tactics for developing a new relationship may be determined in the near future; 1997 could be a critical

year. Some on each side are pessimistic, others optimistic, on the degree of common interest in the relationship. There are divergent views in the United States and China on how to ensure favorable outcomes, e.g., should penalties and sanctions be stressed in bilateral relations or should mutual gains, reward withholding, conditional, multilateral tactics be the strategies of choice.

Some counsel caution to allow us to counter or deter adverse developments in the relationship with a form of "trust but verify" or "wait and see" approach. As in its counterpart in the Soviet-United States policy of the 1980s pessimists advise strengthened alliances to neutralize threats to our interest and security. The more optimistic support the United States taking an active role in the facilitation of Chinese entrance into the global institutions and world market as an active participant. Some even support a "grand bargain," establishing specific but acceptable conditions of U.S. sponsorship and facilitation of Chinese accession to the World Trade Organization, coupled with revisions of the Most-Favored Nation (MFN) determination process.



# I. THE CONTEXT FOR ASSESSING CHINA INTO THE 21ST CENTURY: KEY THEMES

## THE PATTERN AND LOGIC OF CHINA'S ECONOMIC REFORM

By Barry Naughton \*

### CONTENTS

	Page
Summary .....	1
Successive Waves of Market Competition .....	2
The Chinese Approach as a Strategy of Economic Reform .....	5
Key Features of the Chinese Approach .....	6
The Dual Track System .....	6
Growing Out of the Plan .....	7
Entry .....	7
Prices That Equate Supply and Demand .....	8
Incremental Managerial Reforms in the State Sector .....	8
Disarticulation .....	8
Initial Macroeconomic Stabilization Achieved Through the Plan .....	9
Macroeconomic Cycles Throughout the Reform Process .....	9
Continued High Saving and Investment by Households .....	9

### SUMMARY

China's economic reform process has succeeded in fundamentally transforming the Chinese economy. Before reform, all important economic decisions were made by bureaucratic actors who were insulated from most of the direct economic consequences of their actions, and who did not in any case have meaningful prices to guide them in decision-making. China differed from more traditional Soviet-style economies in that decision-making was more decentralized, and central planners did not dispose of the same level of detailed control over the economy as in those countries. But the fundamental fact that decisions were bureaucratically made and without real accountability was common to all of the formerly socialist economies. Today, economic decisions in China are made by a broad and diverse group of economic agents, who respond to market prices and are overwhelmingly accountable for the economic consequences of their actions. It is in most fundamental respects a market economy. Moreover, China made the transition from a bu-

\* Barry Naughton is Associate Professor at the Graduate School of International Relations and Pacific Studies of the University of California. His most recent publications include *Growing Out of the Plan: Chinese Economic Reform, 1978-1993* (Cambridge University Press, 1995), and a volume co-edited with John McMillan, *Reforming Asian Socialism: The Growth of Market Institutions* (University of Michigan Press, 1996).

reaucratic to a market economy without experiencing a large transition-related economic contraction. Instead, economic growth accelerated during the transition process. Saving and investment have remained robust, and human resources have adapted rapidly to the needs of a market-driven economy. Today, the fundamentals are in place for a sustained period of high growth development, extending well into the next century.

Despite the impressive achievements, China's economy continues to display some peculiar features and faces some important challenges. The most unusual aspect of the Chinese economy is the continuing involvement of government at all levels in decisions that would be made by private individuals in most market economies. Governments from the village to the national level own and operate factories. The central government remains committed to a national "industrial policy" that it hopes will guide development patterns in a number of industrial sectors. Governments interfere with bank credit decisions to ensure support for favored firms and projects. The pervasive involvement of government in the economy is matched by the relatively weak record in institutionalizing some of the key roles that government needs to play in a market economy. Despite an important tax reform in 1994, tax revenues continue to erode as a share of GDP and many activities manage to avoid taxation with the collusion of local government sponsors. Despite passage of an impressive body of commercial law, enforcement of property rights remains weak and recourse to the legal system is not in practice available to all. Weak institutionalization and pervasive government involvement in business open the door to corrupt practices.

The key element that has kept the reform process on course has been the steadily increasing impact of market forces. Reform has proceeded through the gradual but persistent injection of market competition into progressively more crucial sectors of the economy. In a competitive context, the costs of government support for poorly performing firms or grandiose projects have become increasingly obvious; and the limitations on government resources in this still relatively poor country have eroded support for projects that cannot pay their own way. Regions, sectors, and local governments compete in a context in which success is determined primarily by market performance. In this context, national and local governments cannot fully shelter poorly performing client enterprises from the imperatives of the marketplace. Most economic organizations have been forced to recognize that they must pay their own way, whether they are private or governmentally-sponsored. The following sections briefly outline the process of reform and then outline the main elements of the reform strategy and the lessons to be drawn from it.

#### SUCCESSIVE WAVES OF MARKET COMPETITION

The traditional socialist economy was not simply a bureaucratic economy; it was also a protected economy, in which key sectors were reserved for government actors. Most critically, industry and foreign trade were protected sectors where the government used its monopoly power to ensure high prices and high profits. During the Chinese reform process, the government cautiously, but progres-

sively and systematically, opened these sectors to market competition. As it did so, it maintained a planned sector in place over the medium run in order to ensure economic stability and allow the government to achieve a few of its priority objectives. Gradually, as the market sector developed, the planned sector was frozen, and then cut back. In successive waves of reform, marketization spread to nearly every sector of the economy.

During the first wave of reform, beginning at the end of 1978, important initiatives were launched simultaneously in urban and rural industry, agriculture, and foreign trade and investment. It is not quite true that Chinese reforms "began in agriculture," since the earliest reforms were quite broad-based. But it was in agriculture that reforms reaped early and undeniable success. Incremental reforms of the agricultural collectives led steadily—and in retrospect inexorably—to a system by which land was contracted to individual households. The rural reform was radical in the willingness to devolve managerial policy all the way down to the household level; but conservative in maintaining ultimate ownership of the land with local collectives, and in maintaining state control of the marketing channels for agricultural inputs and output. Farmers responded to their new freedoms with a surge of output, doubling farm incomes over six years and moving China out of centuries of food shortage.

The early reform with almost as much long-run impact as the agricultural reforms was that which allowed rural industries to expand into virtually any product line. Rural industries already existed, but they had been constrained to a narrow "serve agriculture" orientation that prevented their emergence as a core element of local development. In late 1979, rural industries were freed from these constraints. Following a multitude of development strategies—including sub-contracting with urban factories, producing building materials and consumer goods for newly affluent rural households, and locating "niche markets" of unmet urban demand—rural industries grew into an important part of the industrial base. Rural industries gradually grew to provide significant competition with urban, state-owned industry. Those urban industries had, in the meantime, been given expanded autonomy and improved incentives. Factories were allowed to retain some profits and sell additional output above plan targets. Although initially modest, these early reforms began to prepare factory managers for more radical departures. Moreover, a whole new corps of factory managers was brought in, as Cultural Revolution-era political appointees were replaced by a new group of younger and more competent managers.

Among the earliest of the first-wave reforms were those which opened up parts of southern China to foreign, and especially Hong Kong, businesses. The Special Economic Zones (SEZs) attracted the most attention, but equally important were measures that allowed the duty-free import of inputs for export processing contracts. These measures created a sphere of the Chinese economy that was externally oriented and freed of the constraints of the state-run economy. Initially modest in size and carefully circumscribed from the main domestic economy, the export-oriented sector was poised for explosive growth.

The second wave of reform, roughly 1984–1988, was given impetus and legitimacy by the success of rural reforms, and built on the accomplishments of the first wave. In industry, tentative early policies were knit together into a coherent program to improve the operation of state industry. Most important were the steps taken to replace plan with market operations. The absolute size of plan targets was “frozen” at the end of 1984 for most goods. State-owned factories were instructed to procure all their above-plan inputs, and sell all their above-plan output independently on the market. Market prices came to regulate a significant portion of state factory output, as well as the bulk of rural industrial output. Crucial to this strategy was the commitment to freeze the absolute size of the plan: this implied that all growth would take place in the market sector, permitting the industrial economy to “grow out of the plan.” Factory managers were given much more powerful incentives, and experiments with leasing and auctioning of managerial rights were carried out on a large scale.

In foreign trade reform, the initial export-oriented economy was given a vastly expanded scope with the adoption of the Coastal Development Strategy in 1987–88. This policy allowed foreign investment and duty-free import for export producers through a large swath of the southern coastal region. In addition, the official exchange rate was devalued, and a secondary market for foreign exchange was established. These measures allowed exporters anywhere in the economy partial access to foreign currencies, and improved incentives to export.

Only in agriculture were the second-wave reforms less impressive. An attempt to rapidly marketize agricultural procurement and input supply in 1985 failed in the face of a surge of inflation. While that initial inflationary episode was tamed, a subsequent outburst in 1988 led to a crisis of confidence in reform and a political backlash that extended to the Tiananmen episode in 1989. During 1988–89, it appeared to many in China that reform had led to inflation and instability, without clearly improving economic performance. Conservatives sought to roll back reforms in the wake of the Tiananmen tragedy.

However, this roll-back lasted for less than two years. Attempts to reinstate planning failed miserably, while the performance of the new market-oriented sectors was, in the face of adversity, clearly superior to that of traditional state-run sectors. The stage was soon set for a third wave of reforms. Beginning in 1992, China passed a series of economic reform milestones. In rapid succession, China abolished most of the remnants of central planning and relaxed the bulk of price controls. Foreign investors were given significant access to the Chinese domestic market. At a Communist Party Congress in November 1993 a program for a broad move to a market economy was officially adopted. Immediately following this important meeting, several crucial reform measures were adopted that were designed to regularize China’s economic procedures and build substantially more effective institutions. The two most significant of these were the adoption of a new tax and fiscal system, and the devaluation and unification of exchange rates. Both of these important measures were put into place on January 1, 1994.

One of the significant achievements of the third reform wave was the development of labor markets. During most of the first two waves, state workers had remained within their existing enterprises and rural workers had remained within their own communities. During the 1990s, there has been a surge of labor mobility. Attracted by opportunities in the emerging private and foreign-invested sectors, well-educated young urban dwellers began changing jobs. New social security and unemployment funds have been created that make job changing less traumatic than in the old system of enterprise-specific social benefits. At the same time, large-scale inter-regional migration began, as peasants began leaving farms for working in the booming coastal regions. By 1995, some 60 to 80 million workers were estimated to be working outside their home villages. The growth of the economy gradually began to provide occupational choice and opportunity for a substantial segment of China's population.

Reforms have perhaps been least thorough in the financial sector. State-owned banks still dominated that sector, and bank credit is still the predominant form of financial intermediation. Allocation of credit is influenced by government officials, notwithstanding attempts to segregate policy lending into three "policy banks," thereby freeing up the remaining banks to operate according to commercial principles. The banks carry many bad loans on their books, and are in urgent need of restructuring. Undoubtedly, China will need to carry out further banking and fiscal reforms, or else face financial crises that may disrupt future growth, at least temporarily.

Overall, however, it is remarkable how much China has achieved. One marker of the changes in the economy is that state-owned industry only accounted for 31% of industrial output value in 1995. Another 3-4% of industrial output was produced by joint stock companies in which government organizations have controlling interests, so perhaps 34-35% of output is from the state sector overall. Moreover, the bulk of state ownership is now concentrated in sectors such as utilities and resource extraction, or in capital- and scale-intensive industries such as chemicals, steel, and transport machinery. The pattern of state ownership is now fairly similar to that in developed, "mixed" market economies. This has been achieved without massive privatization of government-owned factories, simply by preferentially encouraging the growth of private, foreign-invested, and rural collective enterprises.

#### THE CHINESE APPROACH AS A STRATEGY OF ECONOMIC REFORM

China's reform is typically categorized as a gradualist approach. This is true, in the sense that reform has been protracted and cautious. The Chinese leadership has acted as if it were constrained to maintain both inflation and open urban unemployment within fairly narrow limits. The Chinese have acted as if minimizing short run adjustment costs (at the expense of prolonging the overall adjustment process) were an important argument in their overall transition strategy. Yet it is important to distinguish Chinese gradualism from the tentative reforms which were tried in the European socialist economies in the 1960s. Those reforms, which I prefer to call "rationalizing reforms," were never designed to be a strategy for transition to the market. Instead they involved a strat-

egy to improve or "perfect" the planning system. Rationalizing reforms maintained the fundamental framework of the existing system, most crucially the state monopoly over the critical core sectors of the economy. Reformers hoped the computation of optimal prices could be combined with improved reward functions to create a planned economy with the efficiency of a market economy. They were after a "computopia" that would combine the best aspects of plan and market, and in which perfect computation would substitute for real competition.

By contrast, it should be clear from the preceding narrative that Chinese reforms involved the injection of market forces and market prices into the economy from the earliest stages. Competition with the "core" state-run industrial sector was permitted once rural enterprises were allowed to produce according to market dictates. From the beginning the Chinese reform process involved introducing market elements where they could be introduced without disrupting the economy as a whole. In the overwhelming emphasis on marketization as such, the Chinese reform pattern shares a basic kinship with "Big Bang" transitions in Eastern Europe (most notably Poland). Both involve quick acceptance of market-determined prices, and large-scale entry of non-state producers. Because of this dynamic, both involve a sharp decline in the government's direct control over resources, as measured by budgetary revenues as a share of GNP, and a concomitant increase in control over resources by households and enterprises. The Chinese transition differs from those in Eastern Europe in the specific sequence with which policies were adopted, and in particular transitional institutions, rather than in the ultimate objective. Both strategies ultimately led to the creation of a market economy, even if this was not known (or could not be openly proclaimed) in China at the outset.

#### KEY FEATURES OF THE CHINESE APPROACH

Since the Chinese approach differs from other transitional strategies primarily in the way that specific elements of transition are sequenced and organized, it is worthwhile to briefly outline the distinctive features of the Chinese approach, as follows.

#### THE DUAL TRACK SYSTEM

The first distinctive element of the Chinese reform process is the "dual-track system." This refers to the coexistence of a traditional plan and a market channel for the allocation of a given good. Rather than dismantling the plan, reformers acquiesced in a continuing role for the plan in order to ensure stability and guarantee the attainment of some key government priorities (in the Chinese case, primarily investment in energy and infrastructure). Having a dual-track implies the existence of a two-tier pricing system for goods under that system: a single commodity will have both a (typically low) state-set planned price and a (typically higher) market price.

It is important to stress that the dual-track refers to the coexistence of two coordination mechanisms (plan and market) and not to the coexistence of two ownership systems. By the mid-1980s, most state-owned firms were still being assigned a compulsory plan for some output, but had additional capacity available for production

of above-plan, market goods. Thus, the dual track strategy was one that operated within the state sector—indeed, within each state-run factory—as well as in the industrial economy at large. This was essential, because it meant that virtually all factories, including state-run factories, were introduced to the market, and began the process of adaptation to market processes. The dual-track system allowed state firms to transact and cooperate with non-state, marketized firms, allowing valuable flexibility.

#### GROWING OUT OF THE PLAN

The mere existence of a dual-track system is not itself sufficient to define a transition strategy. All planned economies have something of a dual-track system, in the sense that none of them ever completely eradicates various kinds of black market trading that, inescapably, takes place market-influenced prices. Thus, it is a crucial feature of the Chinese transition that economic growth is concentrated on the market track. I coined the phrase “growing out of the plan” in 1984 after Chinese planners in Beijing had described in interviews their intention to keep the size of the overall central government materials allocation plan fixed in absolute terms. Given the obvious fact that the economy was growing rapidly, this implied that the plan would become proportionately less and less important until the economy gradually grew out of the plan. Planners concurred in this description: Chinese policy-makers were making a generally credible commitment to freeze the size of the traditional plan. The commitment to growing out of the plan was of great importance for the individual enterprise as well. With their plans essentially fixed, enterprises faced “market prices on the margin.” Even those firms with compulsory plans covering the bulk of capacity were in the position that future growth and development of profitable opportunities would take place at market prices. The plan served as a kind of lump-sum tax on (or subsidy to) the enterprise, and decisions would be based on market prices.

#### ENTRY

The central government’s monopoly over industry was relaxed. In China, the protected industrial sector was effectively opened to new entrants beginning in 1979. Large numbers of start-up firms, especially rural industries, rushed to take advantage of large potential profits in the industrial sector, and their entry sharply increased competition and changed overall market conditions in the industrial sector. Most of these firms were collectively-owned, and some were private or foreign-owned. But local governments also sponsored many new start-up firms during the 1980s, and these firms were often “state owned.” The crucial factor is that the central government surrendered in practice its ability to maintain high barriers to entry around the lucrative manufacturing sectors. This lowering of entry barriers was greatly facilitated in China by the nation’s huge size and diversity, and the relatively large role that local governments play in economic management even before reform. Large size and diversity meant there was scope for competition among firms in the “public sector,” even if each of these firms remained tied to government at some level.

## PRICES THAT EQUATE SUPPLY AND DEMAND

Flexible prices that equated supply and demand quickly came to play an important role in the Chinese economy. Beginning in the early 1980s, a significant proportion of transactions began to occur at market prices, and in 1985, market prices were given legal sanction for exchange of producer goods outside the plan. This meant that state firms were legally operating at market prices, since virtually all state firms had some portion of above-plan production. Gradual decontrol of consumer goods prices—initially cautious—steadily brought most consumer goods under market price regimes. An important benefit of the legitimacy given to market prices was that transactions between the state and non-state sector were permitted, and they developed into a remarkable variety of forms. Simple trade was accompanied by various kinds of joint ventures and cooperative arrangements, as profit-seeking, state-run enterprises looked for ways to reduce costs by subcontracting with rural non-state firms with lower labor and land costs.

### INCREMENTAL MANAGERIAL REFORMS IN THE STATE SECTOR

This market framework for the state firm facilitated the maintenance and incremental reform of the management system of state enterprises. As state firms faced increasing competitive pressures, government officials experimented with ways to improve incentives and management capabilities within the state sector. This experimental process focused on a steady shift in emphasis away from plan fulfillment and towards profitability as the most important indicator of enterprise performance. It is characteristic of China's reform that the improved, and in some ways intensified, monitoring of state enterprise performance was an alternative to large-scale privatization. Logically, there is no reason why privatization can not be combined with a dual-track transitional strategy, but practically there are obvious reasons why they would tend to be alternatives. Urgent privatization tends to follow from a belief that state sector performance cannot be improved, and often leads to a short-run "abandonment of the enterprise" as the attention of reformers shifts away from short run performance and to the difficult task of privatization. Conversely, the sense that privatization is not imminent lends urgency to the attempt to improve monitoring, control, and incentives in the state sector.

### DISARTICULATION

Along with measures to reform the core of the planned economy, Chinese reforms also advanced by identifying economic activities that were the least tightly integrated into the planning mechanism and pushing reform in these limited areas. Chinese reform might thus also be labeled a strategy of "disarticulation," in which successive sections of the economy are separated from the planned core, which persists. This was clearly not an intentional strategy, but rather one that emerged from the nature of the policy process and from the concern of Chinese policy-makers not to disrupt the core economy. The early establishment of Special Economic Zones is the most obvious example of such policies—export-oriented enclaves were created that had, initially, almost no links to the remainder



of the economy. This approach is also one of the reasons that reforms succeeded first in the countryside. Policy-makers realized that it was not necessary that all the countryside be integrated into the planned economy. Beginning with the poorest areas, some regions were allowed to detach from the planned economy. So long as the state could purchase sufficient grain to keep its storehouses full, it could afford to let the organizational form in the countryside devolve back to household farming.

#### INITIAL MACROECONOMIC STABILIZATION ACHIEVED THROUGH THE PLAN

Macroeconomic stabilization and reorientation of development strategy were initially carried out under the traditional planned economy. Rather than combining stabilization and reform into a single rapid but traumatic episode, the Chinese used the instruments of the planned economy to shift resources toward the household sector and relieve macroeconomic stresses at the very beginning of reform. This dramatic shift in development strategy created favorable conditions for the gradual unfolding of reform. Particularly striking is the fact that reforms began with a strengthening of the government's guarantee of full employment to all permanent urban residents. Indeed, the initial shift towards a more labor intensive development strategy was motivated in part by the need to provide jobs for a large group of unemployed young people.

#### MACROECONOMIC CYCLES THROUGHOUT THE REFORM PROCESS

After the beginning of reforms, a pattern developed in which bold reform measures tended to be implemented after stabilization had achieved some success. Reform measures then contributed to renewed macroeconomic imbalances, eventually leading to a new period of macroeconomic austerity. As a result, macroeconomic policies have been of fundamental importance in determining the success or failure of reforms during individual periods.

At the same time the alternation between expansionary and contractionary phases of the macroeconomic cycle has contributed to marketization of the economy over the long run. Periods of macroeconomic austerity led to relative abundance of goods and the temporary elimination of shortages. Under those conditions, the demand for planning was reduced, and the position of markets strengthened. More generally, the planning apparatus has been buffeted by the rapid change in economic conditions, and its importance receded as a result of its inability to respond rapidly to quick changes in the economic environment. The almost intractable task of planning an economy can only be carried out in conditions of artificially imposed stability; without that stability, the inadequacy of attempts to plan the economy became increasingly evident.

#### CONTINUED HIGH SAVING AND INVESTMENT BY HOUSEHOLDS

Steady erosion in government revenues—ultimately traceable to the dissolution of the government industrial monopoly—led to a sustained reduction in government saving. At the same time, though, steady increases in household income and the increasing opportunities in the economic environment led to a rapid increase

in household saving. These offsetting changes meant that total national saving remained high, sustaining high levels of investment and growth. One consequence has been a vastly enhanced role for the banking system, serving as an intermediary channeling household saving to the enterprise sector. While this process has been relatively smooth, it has been difficult for the government both to acquiesce in and to manage the decline in its resources, and macro-economic policy making has become more complex and more difficult.

Together, these factors gave the Chinese transition process an *ex post* coherence. That coherence did not derive from an early blueprint for reform; nor did it derive from a simple realistic and empirical approach on the part of Chinese policy-makers. Rather it derived from a consistent approach to economic problems. This approach sought to minimize economic disruption while gradually and systematically substituting market competition for planned regulation. On balance, and despite a stormy political evolution, this approach has served China well, and succeeded in bringing the Chinese economy to the market.

# POLITICS AND ECONOMICS IN CHINA

By Kenneth Lieberthal\*

## CONTENTS

	Page
Summary .....	11
The Chinese Political System .....	11
The Pattern of Economic Growth .....	12
Official Entrepreneurship .....	13
China's Future .....	14

## SUMMARY

China is a maze of contradictions. Beijing captures a very low percentage of the country's governmental revenues, and evidence abounds of lack of provincial compliance with demands from the Center. Yet, national leaders are able to make the entire political apparatus implement a birth control effort that is widely unpopular. Despite a sharp decline in the scope and power of the state plan, foreign entrepreneurs find that state intervention in the economy remains massive. Even though effective property rights are barely in evidence, the economy is booming and investment remains high. Put differently, China's reality creates the impression that politically the country is simultaneously both highly dictatorial and nearly chaotic and economically that it is both dynamically entrepreneurial and smothered by bureaucracy.

These contrasting elements reflect the dynamics of an underlying fundamental strategic bargain that, while not explicit, shapes the country's political economy. Essentially, the bargain states that: *units at each administrative level of the political system (central, provincial, municipal, county, township) will give those at the next lower level the flexibility necessary to achieve rapid economic growth, on the basis that such growth in turn sustains political and social stability.*

## THE CHINESE POLITICAL SYSTEM

The grant of flexibility is thus conditional and not constitutionally based. China differs fundamentally, therefore, from a federal system, even though it in many ways functions in a substantially decentralized fashion. Indeed, the nature of this bargain makes wide ranging negotiations to sort out resources and prerogatives within the Chinese state bureaucracy a core component of the policy making and policy implementation process.

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Allowing ample room for policy initiative and accommodation at each administrative level of the political system is thus an integral part of the reform strategy China has adopted. Related to this, during the 1980's Beijing radically decentralized the budgetary system, effectively forcing most local political units to raise their own funds. This local budgetary self-sufficiency predictably reduced the responsiveness of localities to higher level orders. But each political level of administration nevertheless retains very impressive powers to intervene massively in the operations of the next lower level, and all officials therefore continue to cultivate support at higher levels even as they seek to maximize economic growth within their own locality.

Higher level leverage is maximized when leaders are united both in their preferences and in their willingness to accord top priority to a program. Given the problems of supervision of policy implementation, moreover, higher levels are more likely to get their way when results are easy to quantify and monitor. When national leaders are united, accord an item high priority, and can get reliable data on local compliance, the Chinese system thus still functions in a centralized, remarkably disciplined fashion. That is the case with the birth control effort. The more an issue diverges from bringing together these three elements, the less disciplined the policy implementation process becomes.

#### THE PATTERN OF ECONOMIC GROWTH

This general approach has achieved its main goal of producing very rapid economic growth while maintaining basic political stability. China's GDP has grown in real terms at more than 9% a year since Beijing adopted this approach in the 1980's. The growth has taken place in a fashion that conforms far better to local comparative advantage than would have been the case under a planned economy. And this growth has lifted tens of millions of people out of dire poverty, while improving the living conditions overall of the vast majority of the 22% of the human race residing within the borders of the People's Republic of China (PRC). This approach has also enabled township and village "collective" enterprises to flourish, adding more than one hundred million new jobs to the economy in this sector alone over the past decade.

But this has not been free market growth. Indeed, Beijing has secured the support of territorial officials at all levels for the move away from a planned economy by permitting many of those officials to participate in—and directly benefit from—the newly emerging quasi-market economy. In a real sense, therefore, officials have become entrepreneurs, who utilize state power to promote economic growth beneficial to their localities. This phenomenon is increasingly obvious as one goes "down" the national political hierarchy. At the township level, indeed, there is substantial evidence to suggest that, at least in the wealthier parts of the country, it makes good sense to think of township governments as the headquarters of *de facto* local township-wide corporations, where each of the nominally independent "collective" enterprises under the township functions in reality as an operating division of the local government-directed township corporation.

## OFFICIAL ENTREPRENEURSHIP

There are profound repercussions to such deep official involvement in the economy in what has become, essentially, a system of fairly decentralized state capitalism. Property rights of firms, for example, are poorly developed. There is ample evidence that officials are able to move resources from one state or collective firm to another and to capture firm-level profits. To protect "their" firms, officials may use their governmental power to stop competitive products from entering the local market; they may also allow those violations of intellectual property rights that enrich their own locality to go unpunished.

The effects of such an approach are felt far beyond the economic sphere itself. Local territorial officials as entrepreneurs also hold sway, for example, over the local environmental protection organs, which are under the leadership of the territorial government. With entrepreneurs controlling the regulators, the results are predictable: cover-ups of environmental disasters; circumvention of fines for pollution; lax enforcement of environmental rules; and so forth. Many environmental problems are mobile, moreover, and thus require concerted action across substantial distances for effective countermeasures. Water flows, air moves, acid rain typically falls far from the pollution source, and so forth. But the net effect of the politico-economic bargain described above has been to make local territorial leaders focus first on the development of their own locality. This system makes cooperation among localities on environmental and other issues difficult to obtain. China now is under greater environmental stress than has been the case for any other country at a comparable stage of development.

Official entrepreneurship has also nurtured corruption and rent seeking behavior. Where making money confers prestige and everyone is anxious to get ahead, socialist ideological commitment has nearly disappeared in the rush for the gold. Government and communist party cadres take advantage of their official positions to demand bribes, to place their relatives in lucrative positions, to impose illegal "fees" for performing regular duties such as issuing licenses and approvals, and to engage in other forms of corrupt behavior. Corruption has reached a level that has provoked widespread cynicism and anger among China's citizens, thus weakening the ties that bind the polity together even as it strengthens the resolve of many officials to maintain the current system largely intact.

The corruption of those in power, combined with the blatant materialism that the reformers have nurtured, sap the moral underpinnings of state power. The communist party itself is now widely held in contempt; it has lost its legitimacy as the defender of the Chinese revolution. Because in China the state has always been expected to provide the moral framework for society as a whole, the failure to articulate and sustain a moral rationale for the current system is potentially a very serious matter.

The decentralized approach to economic development, with local officials acting as key entrepreneurs, is producing a China that is increasingly diverse, with differences in quality and style of life growing throughout the country. The very speed of economic devel-

opment is itself creating large underlying tensions. Urbanization is drawing tens of millions off the land to compete for low end jobs in the cities; large scale urban redevelopment is displacing many millions of residents in the name of progress; income differentiation has become both greater and more obvious, producing jealousy and discontent; the economy is prone to overheat, with attendant bouts of inflation.

This adds up to a complex reality for the Chinese citizen. Most Chinese are now living markedly better lives than they have ever before enjoyed. Their individual freedoms, in terms of the choices they are allowed to make concerning everything from occupation to place of residence to how they spend their leisure time, are greater than at any earlier period in the PRC. The Chinese state has moved from the revolutionary aspirations of the Maoist era to the far more modest aspirations of a typically authoritarian regime, with the result that it is willing to leave most people alone politically so long as they do not actively challenge the state itself.

#### CHINA'S FUTURE

What can be said with confidence about the future of China, based on the above analysis? The country will become increasingly differentiated, with various parts of the China enjoying a greater disparity in styles and quality of life than is currently the case. The government will at most pay lip service to communism and actually rely instead on nationalist rhetoric to define its goals and build its legitimacy. Corruption will continue to characterize the system because structurally there are few effective ways to combat it in the coming few years. And barring a collapse of the banking system, an environmental catastrophe, or war, the economy should continue to grow at real rates of better than 7% a year into at least the early years of the twenty-first century.

But prospects for a relatively free market economy are mixed, at best. First, China seeks to become an *East Asian-type* market economy. Its models are Japan, South Korea, and Singapore, rather than the United States or Canada. Beijing expects the government to continue to play a major role in shaping economic priorities and development, with strong sectoral policies and substantial government intervention in the economy. It seeks market efficiencies within the parameters of the framework for economic development laid out by the state. The result is likely to differ substantially from a true free market economy.

In addition, the state-owned enterprises (SOE's) continue to employ a large percentage of the urban labor force, and real market competition would force dramatic downsizing throughout this sector and drive many out of business. No PRC government in the coming few years is likely to risk the tremendous social consequences that the resulting unemployment among China's potentially most militant workers would produce. China is still in the early stages of laying the basis for movement to a more fully market-driven economy. Some of the core remaining obstacles, beyond those in the inherent political economy noted above, include:

- There are only nascent systems to handle unemployment, medical insurance, pension benefits, and other collective goods pro-

vision outside of utilizing the state-owned enterprise itself to provide these goods to urban workers. The SOE's will not be able to become primarily production-oriented units until these alternative vehicles to delivering vital services are in place, and that will take many years. Before that time, the SOE's will be poorly positioned to compete in a market-driven system without large scale state subsidies.

- A more fully market-driven system presumes the existence of secure property rights and of a legal system sufficient to provide confidence in contractual relations. These are developing in China, but the process is slow and inevitably will require a number of years.
- The Chinese state banking system has been forced to provide loans that stand little chance of repayment. As a consequence, the system is buried under a mountain of bad debt, amounting to more than 15% of annual GDP. This will require very substantial capital and a major change in the entire approach to funding investment before the banking system can play a proper role as an allocator of scarce capital in a market environment.

In the collective sector, there is more hope for freer market competition to develop over a period of years. Currently, as noted above, local officials usually dominate the collective sector enterprises. But especially in the wealthier regions of the country, as these enterprises multiply and become more sophisticated, officials may find it is easier to tax relatively independent firms than to try to supervise and manage directly an increasingly complex set of firms. This might gradually lead to less official interference in local production, along with creating demand for a stronger legal regime within which to run the economy. This set of developments could unfold during the coming five-to-ten years without fundamentally challenging the political power of the state.

On balance, the interpenetration of state and economy in China as of 1996 remains extraordinary. Activities and decisions by officials at all levels determine the viability and profitability of most firms. Economic performance is a major factor in evaluating territorial leaders for promotion up the political hierarchy. The Chinese state has, through the underlying bargain described at the beginning of this article, successfully tapped the entrepreneurial talents of the society while making massive state interference compatible with economic vitality. This system will inevitably evolve over the coming years, but it will be a very long time before something closely resembling a free market economy will develop in China.

# SOME HISTORICAL REFLECTIONS ON CHINESE ECONOMIC REFORMS: FROM WANG MANG TO DENG XIAOPING, 9 A.D. TO THE PRESENT

By Chi Wang\*

## CONTENTS

	Page
Summary .....	16
Introduction .....	16
Wang Mang .....	17
Wang Anshi .....	19
Subsequent Reform Movements .....	20
Concluding Remarks .....	22

## SUMMARY

In its long history Chinese leaders have made many unsuccessful attempts to reform their system. Up to the 19th century reform efforts were directed by the Confucian principle of establishing peasant rights to provide them with an adequate living standard. In the last century Chinese reform leadership under Sun Yat Sun borrowed from the West's rules-of-law in governance including democratic principles of civil rights and market economics in order to improve Chinese living standards. All Chinese revolutionary reforms were successful in establishing citizen rights to prosperity and the rule-of-law and protecting citizens from powerful monopolistic forces in the Chinese society. Deng Xiaoping's commitment to a transition to a market economy with some pluralistic elements of government and a nascent rule-of-law may be the best chance in Chinese history to bring transitional reform to the Chinese people. China is now on an irreversible course of reform. Integration into the global system could establish China as a global power. The key to this integration may be a cooperative relationship between China and the United States.

## INTRODUCTION

Throughout the history of China, its leaders have initiated many economic reforms in attempts to increase national revenue, improve living standards, and allay the discontentment of the peasants. Most of these reforms were innovative but drastic and the Chinese central authority implemented them by force and by introducing strong measures. None was successful and some were dismal fail-

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ures. There were two most widely known and controversial reformers in traditional China. The first was Wang Mang of the latter part of the Western Han dynasty (9 A.D.—23 A.D.). The second was Wang Anshi (1021—1086) of the Northern Song dynasty. Many of their reform programs contained modern day “socialist” ideas.

### WANG MANG

One of the earliest major reforms was introduced by Wang Mang, prime minister and nephew of a Han dynasty Empress. By 100 B.C., the economy of the Western Han dynasty had serious problems, with the wealthy owning most of the land, leaving poor peasants without enough land to cultivate. Peasant rebellions broke out in Central and North China. Throughout Chinese history, almost every imperial dynasty ended with a peasant rebellion. Wang Mang rose to power by his vigorous reform ideas and eventually usurped the throne in 8 A.D. and established his Xin (New) dynasty in 9 A.D. Wang considered himself a Confucian follower and, with the help of other Confucian scholars, carried out a number of drastic reform programs.

Historically, Wang Mang has been considered by many historians as China's first socialist reformer. In order to increase the state revenues, Wang built up State monopolies, including commodities such as salt, iron, liquor, and minting copper coinage. He reinforced the “leveling” system, by which the central Government purchased surplus produce in time of glut to sell in periods of deficiency. This system may have helped stabilize prices, but the motive was profit for the national treasury.

The “leveling” system was originally initiated by Emperor Han Wu-di, one of the most powerful emperors in Western Han dynasty (206 B.C.—8 A.D.), in 110 B.C. Emperor Wu-di's economic measures were on the whole successful and this continued during the next several decades. In the meantime, the population of China had grown to such a point that the average peasant had little land to cultivate. At the same time, the great landowners were on virtually untaxed estates and tax-paying peasants in other places were forced to carry a much heavier burden than before, on a smaller agricultural base. State revenues were decreasing and a series of large-scale peasant rebellions were staged in the countryside in 22 B.C.

When Wang Mang usurped the throne, he reintroduced some of the earlier economic measures that worked well during Emperor Wu-di's time. Besides the buildup of the “leveling” system, Wang Mang also initiated a policy of agricultural loans to peasants. However, Wang Mang's most daring reform was the “nationalization” of the land in 9 A.D. This meant land would be “nationalized” and parceled out among tax-paying peasants; private slavery was to be stopped. Such a drastic policy would have been extremely difficult to carry out even during the powerful years of the Han dynasty. Now the dynasty's fortune was in decline and by the time Wang Mang established his Xin dynasty in 9 A.D., the economic conditions in China were beyond repair.

In order to assess Wang Mang's reforms, we need to look at the problems. In an agricultural society such as China, land was the major wealth; thus, landowners were the most powerful group of

the entire population. Farming was acclaimed as an essential occupation, while other professions, like commerce and industry, were regarded as secondary and considered nonproductive or even exploitative. Because the amount of land was limited and the majority of the land was owned by wealthy landowners, small, independent farmers could not compete with great landlords who could force them out of their holdings by exercising political and economic pressures. Official policy was often in line with the rich landlords, as the policy-making officials were mostly from this class. The only way for the poor peasants to achieve upper social mobility was to pass the imperial civil service examination, but most of the poor peasants could not afford an education. As the rich became richer, independent farmers could not continue to maintain their small farms. Taxes were high, and many farmers had to sell their land. Once they became tenant farmers, they paid one half of their produce to the landlords as rent and kept the rest to pay taxes and to support their families. In any case, the most unfortunate of the landless became slaves. The very poor, when denied the barest subsistence, were often driven by desperation to lawless activities such as banditry and joining peasant rebellion groups in the countryside.

Without question, Wang Mang's reform programs were intended to improve the economic conditions and the livelihood of the peasants, but the programs were without adequate planning. No organization was established for implementation, and the officials mishandled the reform from the beginning. For example, in many locations the wealthy merchants were employed as regulation agents, and their primary interest was enriching themselves rather than serving justice. The government frequently changed its regulations and laws, and the people had no idea what the laws were. This was especially true in remote areas where communication and transportation were more difficult. As expected, the outcome was confusion and anarchy. The farmers who Wang Mang was trying to help ended up suffering with the rest of the population. Wang Mang finally realized the futility and declared the end of the entire reform program, which lasted for 14 years from 9 A.D. to 23 A.D. By this time, enough damage had been done and rebellion had already begun. In the meantime, the rich landlords had never reconciled themselves to Wang Mang's regime which intended to nationalize their land. The rebellion against Wang Mang soon spread throughout the entire country, and his 14-year Xin dynasty ended in 23 A.D. and Wang Mang was killed.

Peasants in China not only may help a rebellious group to establish a new dynasty, but they also could bring down a hopelessly weak emperor. In traditional China and according to Confucian ideas, peasants' rights were enough land to cultivate; enough food to eat; a place to live and adequate clothing. The Chinese people rarely demanded other rights from the Chinese emperor, the "Son of Heaven." If an emperor was unable to provide these basic needs for his people, the citizens had the right to revolt. This happened in ancient times as well as in 20th-century China. Dr. Sun Yat-sen's Republican Revolution of 1911 and Mao Zedong's Communist revolution are two significant examples of the people's power.

## WANG ANSHI

One thousand years later, another major economic reform was initiated by Wang Anshi (1021–1086), the chief Song dynasty councillor. In the midst of declining Song dynasty fortunes, Wang Anshi tried to rebuild the economy and bolster the shrinking empire militarily against northern invaders. Enjoying the support of the emperor, Wang Anshi initiated a number of reform measures that were far-reaching and astonishing but similar to the economic control devices employed in the modern world. Wang Anshi was an innovator; however, he remained within the Confucian political mainstream that emphasized tradition and respect for age. Like Wang Mang, born into the official-scholar class, Wang Anshi had survived the examination system and had no wish to revolt against the classics, in fact he cited them as sanctions for his reform proposals.

Wang Anshi's reform program probably was motivated by practical and administrative concern for government solvency and efficiency, and not by ideological, "socialist," or purely humanitarian considerations, although no one can explain positively what was in the minds of the Song dynasty reformers. Trying to improve the peasant base of the state, he set up agricultural loans for peasants at 20 percent interest, then considered reasonable. This measure, sometimes known as the "Green Sprout Act," enabled peasants to borrow for seed grain in the spring and repay after harvest time. Wang Anshi also introduced price controls and extended credit to small businesses. He rationalized the taxes, which were paid in kind. To sustain agriculture as the mainstay of state economy, he adopted, as had earlier emperors, state monopolies in commerce, enacted ever-normal granaries, and continued the equal-field system to keep lands on tax rolls. He expanded economic and financial schemes beyond the agrarian field. He imposed taxes on all types of property and substituted an additional graduated tax for labor conscription. Wang Anshi introduced a state budget to save and to record expenses, an unusual move because Chinese political thought did not encompass the concept of fiscal accountability by the government. He initiated compulsory military service, with families providing able-bodied men for frontier and local militia forces.

With so many radical ideas in his reform proposals, Wang Anshi was severely criticized by the conservatives for these measures, which would seem to many now as rational and beneficial. Among his opposition factions were reputable figures such as the scholar-official and historian Sima Guang (1019–1086) and poet-scholar and official Su Dongpo (1036–1101). Because of the age-old official prejudice against merchants, one criticism was that in involving the state in trade at the local retail level, he was demeaning the emperor by having him peddle coal and ice like any small merchant. Again the opposition was no doubt sparked by the self-interest of moneylenders and landlords who had strong influence with the official class. Some measures, such as the "Green Sprout Act," were sabotaged by dishonest administrators. Undoubtedly, Wang Anshi also suffered from a certain arrogance of power. In any event, most of his reforms, instituted in 1069, were abolished with the death of the emperor Shen Zong in 1085. Wang Anshi himself

died one year later in 1086. The Song dynasty was not overthrown by a peasant rebellion. Shortly after the emperor and Wang Anshi died, the northern invaders captured the Northern Song capitol of Kaifeng, and the Song capitol was moved to the southern part of China, Hangzhou. Finally, the Song dynasty was overthrown by the Mongols in 1279.

### SUBSEQUENT REFORM MOVEMENTS

What are some of the special characteristics in these two reforms in ancient China? Both reformers were primarily concerned with China's agricultural and peasant problems, and these reforms also were devoted to domestic economic issues. Only the Song dynasty was concerned with the invaders from the north that involved some new approaches in military and defense measures. These reforms did not touch upon any political issues. Since the 18th century and particularly during the 19th century, the reforms in China not only involved China's domestic issues but many serious issues had to do with foreign countries, particularly countries from the West. In fact, most of the reforms during the 19th century in China were forced by the Western world. Both of these reform movements did not last more than 15 years. Deng Xiaoping's reform probably is the longest reform movement in Chinese history and has much wider support from the Chinese people.

Following these reforms from ancient China, by the time of the 18th and 19th centuries, countries of the West began to expand their commercial and activities in Asia, particularly in China. As a result, China faced a new set of problems. The Western powers attempted to force China to open up its markets to Western traders. The Chinese, on the other hand, continued to resist these new pressures from the West. By mid-19th century, China was forced to confront Great Britain in South China. From 1839 to 1842, China fought and lost a war with Great Britain, resulting in the "Treaty of Nanking." Hong Kong was ceded to Great Britain. The Chinese considered this the first in a long series of unequal treaties imposed by Western powers. By the mid-19th century, after the British, the French, the Portuguese, the Germans, and the Japanese also joined in encroaching on Chinese territory, China was helpless. She desperately wanted to rebuild her strength and knew that learning from the West was the key. Chinese leaders introduced a series of new reforms, including the "self-strengthening" movement during the 1860s and 1870s. However, this change of position came a bit too late. China still wanted to retain her Confucius tradition in government and society so she resisted Western influence. Only student scholars knew of the technology and ideas from the West.

The reforms continued. By 1898, a group of scholars led by Kang Youwei carved out a new reform, but it was crushed by the Iron Hand Empress. It lasted for barely a hundred days; thus, it was properly named the "One-Hundred Days Reform." This was the last reform during the Qing Dynasty.

Dr. Sun Yat Sen led a "Republican Revolution"—the Revolution of 1911—which overthrew the last imperial dynasty. Dr. Sun was a Western idealist revolutionary and his major ideology was called the "Three People's Principle." The first was nationalism. To bring

China to her former glory, patriotism and national unity were imperative to collaborative efforts toward success. The second principle was democracy, but the term did not refer to human rights. This did not mean that the Chinese people did not want human rights and freedom. Democracy in Sun's case referred to civil rights, as in voting for officials. Finally, people's livelihood was a major concern. Working and living were simply too hard. Still, the old obstacles that had plagued reform in China were as insurmountable as ever. Dr. Sun died in 1925 and his disciple, General Chiang Kai-shek, succeeded him as the Nationalist party leader.

Subsequently, General Chiang led a northern expedition, in which he defeated the northern warlords in 1928. He established his capital in Nanking. From 1927 to 1935, Chiang focused on destroying the Chinese Communist Party, under the leadership of Mao Zedong. Finally, by 1934, Mao and his army retreated from central China and after a 10,000 miles "Long March," he took his army to Yenan. Mao had to rebuild his depleted Red Army. By July 1937, the Japanese military forces launched a full-scale attack on China. The Japanese army occupied Peking and in December, Nanking. Chiang retreated to Chongking. Soon after the Second World War ended in 1945, Chiang continued his campaign against the Chinese communist army. In early 1949, Mao emerged the victor of the Civil War. Then, Mao ZeDong set in motion a number of five-year plans for agricultural reform. The first Five-Year Plan, 1953-57, was a success. It was followed by the "Great Leap Forward Movement" of 1958-1961. People worked twice as hard and earned nothing. Success under such conditions was impossible. Mao's reaction to his repeated failures was more radical reform. In 1966-1976, Mao's Cultural Revolution blamed "Western Imperialism" for everything wrong in China. The young people—the students— anxiously followed him, and Western ideology was outlawed. Millions died from starvation and other reasons during the Chairman's Cultural Revolution, and China's economy was still in dire straits.

Thus, after Mao's death in 1976, a once dedicated supporter, then outcast official, became China's would-be rescuer. The People's Republic's new leader, Deng Xiaoping, carried out a major departure from the old tradition and the beginning of a new economic era. He saw that the only way to save China was to open up the country to the whole world. In 1977-78, Deng initialized a new economic reform program for China. Special Economic Zones (SEZ) were set-up, because the PRC needed foreign nations to invest in its resources. China was no longer isolated from the outside world. His opponents criticized and called this idea very pro-Western. Deng called it "Socialism with Chinese Characteristics." His reforms are the most successful and the longest lasting in all of Chinese history.

Today, China has become an active and critical player in the world of trade and politics. Its standard of living has risen. People have imported TVs and clothes, while the new generation of Chinese students are learning about Western civilization and its philosophies in overseas Western universities. However, the old tradition is still a tangible and significant element in Chinese life and national policy. The overwhelming majority of China still lives in

the countryside, barely touched or totally untouched by the West. Only the small number of students and intellectuals in the larger cities know of and demand "human rights" and "democracy."

Therefore, encouraged by the outcry of a handful of Chinese students and intellectuals, who have little idea of life beyond their Westernized cities, some U.S. policy makers would like to see the 4000 years of Chinese tradition change overnight.

#### CONCLUDING REMARKS

In renewing the ancient reform movements, what can contemporary Chinese leaders learn from past experience? Two thousand years after the Wang Mang reforms, China today faces many of the same problems faced by ancient Chinese leaders. China still is an agricultural society. Eighty percent of the population still lives in the countryside. Without a sound agricultural policy, current reform will be difficult.

China also faces new, in addition to the age-old, obstacles. As it was in the Xin and Qing dynasties, agricultural economics, taxation, revenues, equitable distribution of wealth, corruption, and solid plans to carry out new reforms are issues and problems that Deng must face. Whereas ancient rulers had no influence from outside societies and cultures, international pressure is now a major element for the Chinese policy-makers. Issues such as nuclear proliferation and human rights complicate the battery of national concerns, like trade and revenue. China's leaders also face internal opposition within the party. Deng is a devoted communist and he came to power with its support. To suddenly contradict the ideas of Confucius and Communism would strip him of his power. Also a looming issue to consider is that Deng Xiaoping is 91 years old. The question of who his successor will be weighs heavily in the minds of every Chinese. The People's Republic has always required a strong leader to handle and satisfy the demands of the masses.

The West would like China to become a democracy and to adopt democratic ideals. This takes time. Deng will not be the leader to accomplish this aspiration. He has reached the goals he had set out to do. Regardless of the amount of international pressure, China will remain Communist China for now.

However, more than 250,000 Chinese students have been educated in the U.S. and more than 80,000 have already returned to their homeland. They've been influenced by democracy and these young people will plant the seed and cultivate the start of reforms toward this change in political systems. But, more important, China needs help from the international community on the economic front. The economy has been a difficulty for the Chinese for 2000 years. Therefore, it is their foremost concern. American policy-makers must strive to assist China in their economic reforms. Someday, China may become a "Democracy with Chinese Characteristics," when economic reforms started by Deng will have succeeded. During the two major ancient economic reforms, change did not even have the opportunity to take root. Deng's reforms have and may be the last great economic reform. If this fails, another leader with Deng's determination and ingenuity may not step up to the plate. China cannot lose what success it has already achieved. The U.S. is a young and vibrant country. China is a

4000-year-old country, inseparable from its traditions, but capable of growth and a new day. When its economy is secure and respect for tradition is intact, a gradual change to democracy will be possible.

# A MID-COURSE ASSESSMENT OF CHINA'S ECONOMIC REFORM

By Hang-Sheng Cheng\*

## CONTENTS

	Page
Summary .....	24
Introduction .....	24
Past Reform and Problems .....	25
Partial Decentralization .....	26
Incomplete Marketization .....	27
Limited Financial Liberalization .....	28
Inadequate Market Infrastructure .....	29
Current Reform: Programs and Implementation .....	29
State-Owned Enterprises .....	29
Housing and Social Welfare .....	30
Taxation .....	30
Foreign Trade and Foreign Exchange .....	30
The Financial System .....	31
Law .....	31
Conclusion .....	32
Formalism .....	32
Errors in Economic Thinking .....	33

## SUMMARY

China's economic reform entered a new phase in 1994 when the nation launched a comprehensive program designed for completion by the year 2010. This paper reviews past reforms and the problems that have led to the current reform as well as the implementation to date of the new reform program. It suggests that China's rapid economic growth is not sustainable without parallel development of market-supportive institutions, which thus far has been largely ignored. The current reform is intended to correct that. Its success will require less formalism and greater trust in the price mechanism than in the past. The paper concludes with thoughts on China's role in the world economy.

## INTRODUCTION

China's economic success has dazzled the world. Since reform began in 1979, China has maintained the highest output growth rate in the world, attaining an annual average of 12.5 percent from

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1992 to 1995. Among the developing countries, it has been the largest recipient of foreign direct investment, amounting to \$38 billion in 1995. Some observers are speculating that China could replace Japan as the second largest economy in the world by the year 2010.

Yet, paradoxically, many respected scholars and policy advisers in China are quite concerned about the country's economic future. In private conversations, they marvel at the outside world's enthusiasm and note, with a smile, how its views have swung from dire pessimism at the beginning of this decade to unbounded optimism a mere six years later, when basically not that much has changed in China.

What is the reason for this contrast in assessment? Are the outside observers naive, as the insiders seem to believe? Or are the insiders only seeing the trees, not the forest, as the outsiders seem to think? What is the true picture of China's economy today and its prospects in the foreseeable future?

This is a particularly opportune time for an assessment of China's economic reform and its economic prospects. China has reached a midpoint in its economic reform. Past reforms have produced rapid output growth and improved the living standard for the majority of its people. Yet, the task is only half completed. Many of the constraints to growth remain, and the underlying foundation for sustainable growth is yet to be laid.

In 1994, China embarked for the first time on a comprehensive and systematic approach to economic reform to be implemented and completed in the next 17 years. The program is particularly helpful for our assessment, as it reflects the scope and nature of the task *as the insiders see it*. And the program's implementation in the last two years provides insights on the realities in China as seen from *this outsider's point of view*.

#### PAST REFORMS AND PROBLEMS

China's impressive economic progress in the last 17 years is a familiar story that needs no repeating. Instead, three principal features of the reforms that began in 1979 will be sketched to help review the past and assess the present. They are: decentralization, marketization, and financial liberalization.

Decentralization means a devolution of economic decision-making from the central authorities to lower levels of the government. During the 30 years prior to 1979, twice decentralization had been tried, first in 1958-60 and then in 1967-76, both times ending in disaster. The third attempt in 1979 differed in that decentralization this time was extended down to the level of individual production units, rather than stopping at the provincial government level, in a gradually liberalizing market environment.

Marketization means the replacement of central planning by the free play of market forces. Internationally, an open-door policy ended 30 years of self-imposed insulation from the rest of the world and opened the economy gradually to competition, new technology, and new markets through foreign trade and foreign investment. Domestically, by 1994 more than 85 percent of agricultural prices and more than 95 percent of industrial consumer prices were free of government control, and the scope of mandatory production planning fell to only 5 percent from 95 percent of total industrial output

prior to reform. In addition, the rise of township and village industries and of private enterprises, including wholly or partially foreign-owned businesses, has greatly increased opportunities for entrepreneurship and competition in the economy.

Lastly, financial liberalization means the switch from government-budgeted investment financing to lending through banks. Because in China banking control is much weaker than government fiscal control, the change has significantly loosened the budget constraint on the financing of investment and production. Together, these three factors released a torrent of powerful productive forces that had been dammed up by central economic planning. Over the past 17 years, this newly unleashed vitality has gathered momentum to create spectacular output growth, especially in the last four years.

The question facing us now is how long can this momentum be sustained.

To answer this question, we must draw a distinction between economic growth and economic development. Economic growth refers to output growth, while economic development refers to the development of public and private institutions and conventions that are essential for sustaining economic growth. A nation can achieve rapid output growth by increasing capital investment and acquiring new technology—as the former Soviet Union did in the 1930s and China in the 1950s—as well as by more efficient use of its resources through domestic and international marketization—as China has done since 1979. But, without developing the essential market-supportive institutions and conventions, output growth will inevitably lead to chaos, wastefulness, and eventual exhaustion of the sources of growth.

This, I believe, is where China stands today. On the surface, everything looks fine: businesses are booming, high-rises are going up everywhere, and foreign capital keeps pouring in. But, internally, both its society and its economy have deep-seated problems.

These problems may be summarized under the same three headings used above to characterize past reforms: decentralization, marketization, and financial liberalization—plus market infrastructure. Past reforms, in each of these areas, carried the signature of a piecemeal, experimental approach. This approach has brought about clear signs of malfunction of a half-market, half-government-controlled economy—with plenty of vitality, but not much rule and order. Pundits have aptly labeled it an economy of the “Wild East.”

#### PARTIAL DECENTRALIZATION

Devolution of business decision-making has not been carried through to all enterprises. For ideological as well as practical reasons, this has been especially true with respect to the state-owned enterprises (SOEs), which to a large extent continue to be directly managed or tightly controlled by various government agencies. However, despite preferential treatment in the supply of energy, transportation, and raw materials, about one-half of the 100,000 SOEs sustained losses in the business-boom year of 1994. Although accounting for only about 40 percent of the nation's total industrial output, they absorbed two-thirds of total domestic credit and re-

ceived subsidies amounting to two-thirds of the large government budget deficit that year.

The SOE problem is only the tip of the iceberg of a much larger and more general problem of the nation's industrial organization. Virtually all domestic businesses of any significant size are either owned and operated by some government agencies or are indirectly connected with some government units. Though government-related, these business enterprises do not exist to carry out government policies as before reform, but to make money, to get rich, for their own workers and the respective government agencies and their staffs.

Moreover, the majority of businesses are in some way tied to the local government. Local interests often prevail over business interests. Local protectionism in terms of the sourcing of productive inputs, allocation of credit, distribution of tax concessions, and enforcement of court decisions has built up a tight and cozy relationship between businesses and the local bureaucracy.

In this environment, connections reign over productive efficiency as the key to economic success. Corruption is rampant, and influence peddling is a way of life. The cost of doing business in this environment, to individual businesses and the society, is enormous, compared to that in a market economy.

Another consequence of decentralization has been the steady deterioration of government finance. The share of government revenue in GDP fell steadily from 34 percent in 1978 to only 14 percent in 1993, compared to an average of 32 percent in developing countries and 48 percent in industrial countries. Inadequate government revenue and the associated perennial budget deficits have meant underfunding of major priority areas such as education, public health, poverty alleviation, environmental protection, transportation, pension reform, and unemployment assistance—with adverse impacts on social stability in the short run and on economic growth in the long run.

#### INCOMPLETE MARKETIZATION

Marketization has also been far less than complete. Internationally, although the open-door policy has succeeded in attracting large inflows of foreign direct investment and in developing a dynamic, rapidly expanding export sector, by 1993 the economy was still shackled by a deep-rooted mercantilist mentality of export promotion coupled with protectionism against imports. Almost one-half of imports were subject to licensing, and a high tariff system was structured to favor imports of raw materials and intermediate products against finished goods, resulting in retarded development of domestic high-quality intermediate-product industries and low domestic content of exports. In addition, an exchange control regime coupled with a dual exchange rate added another layer of mercantilist policy to the trade restrictions.

Domestically, marketization has been almost entirely on the output side of the market and little on the factor-input side. Although by the end of 1993, the prices of most goods and services were market-determined, for the factor inputs—land, capital, labor, and technology—there were hardly any markets to speak of. The nation's constitution stipulates that all land is state-owned. Since

1979, farmers have leased land from the state, but the leases are not transferable. Experiments with urban land leases, also non-transferable, are just beginning. Until recently, capital was allocated by state-owned banks in accordance with the credit plan. And the annual volume of capital raised in the emerging capital markets is negligible. Labor mobility is hampered by the household registry system, which has kept surplus farm labor in the countryside, though with decreasing effectiveness. A more effective barrier to labor movement has been the employer provision system, which still provides to permanent employees cradle-to-grave welfare—including housing, medical care, child education, vacation travel, old-age pension, funeral and burial services. Technology is also not marketable. A patent law was passed in 1985 and a copyright law in 1990, to encourage inventions and innovations. But, enforcement remains a remote hope.

#### LIMITED FINANCIAL LIBERALIZATION

The shift from government-budgeted financing of investment to bank financing is a far cry from the deregulation of the financial system in market economies. In fact, after 17 years of economic reform, although central planning of physical production has largely disappeared, until recently the credit plan remained the central guiding principle of credit allocation in China. Under the plan, the central bank directly controlled the total volume and the direction of bank loans to enterprises as well as the magnitudes of individual securities issues in the capital market. Interest rates today are still regulated by the central bank under the direction of the State Council.

The result of this government direct control of all financial activities has been a banking system that operates purely as a government bureaucracy, and a stunted growth of money and capital markets. Despite the phenomenal expansion—in variety and in volume—of financial institutions and financial assets in the last 17 years, functionally finance remains the most unreformed area in the Chinese economy today. Thus, in this partially reformed economy, while most of the prices and production decisions are now market-determined, the all-important allocation of credit and supply of money was until recently still controlled by economic planning.

The incongruity of marketized production and plan-controlled finance has become more evident, as decentralization expanded both the sources and the magnitude of political pressure on the central bank for easy monetary policy. The increased pressure has made the central bank's management of the annual credit plan increasingly difficult. Moreover, as was to be expected, the market has developed many ways to get around the credit plan, in the form of a variety of nonbank financial institutions and informal money markets. The result has been less effective monetary control.

Moreover, under political pressure, the central bank has not followed a stable monetary policy. When it succumbed to pressures and allowed rapid growth of credit and money supply, inflation followed; when it tightened credit and reduced monetary growth, the economy slowed down and pressures for reversal of the policy re-mounted. The resultant stop-go monetary policy has been the prin-

cial cause of China's macroeconomic instability and accelerated inflation during the past 17 years.

#### INADEQUATE MARKET INFRASTRUCTURE

Foremost among the market-supportive institutions essential for sustainable economic growth are law and the court system. Civil law has never had much of a tradition in China. Whatever tradition there had been the Communist revolution in 1949 destroyed almost entirely. The 1979 reform reawakened an appreciation of the importance of law in a market economy. A series of basic laws have been enacted, governing foreign joint ventures (1979), business contracts (1981), trademarks (1982), patents (1984), environment protection (1989), copyrights (1991), corporations (1993), foreign trade (1994), and arbitration (1995).

Efforts have been concentrated on legislation, however, rather than on enforcement. The latter depends on the lower courts and the local police, both of which are either directly under the local government or closely tied to it. Court judgments against local businesses under local governments' protection have little chance of being enforced.

#### CURRENT REFORM: PROGRAMS AND IMPLEMENTATION

Recognizing the problems arising from the piecemeal, experimental approach to past reforms, the authorities in 1994 launched a bold, comprehensive and integrated reform program designed to complete the reform process and construct a "socialist market economy with Chinese characteristics" by the year 2010. It covers a wide spectrum of areas. Instead of examining it in detail, I shall focus on a few areas to illustrate the general characteristics of the program and the difficulties of implementation.

#### STATE-OWNED ENTERPRISES

The authorities recognized the need to complete the decentralization process by insulating the SOEs from government interference and giving them complete autonomy in management. Out of the 100,000 SOEs, 10,000 were selected to adopt new accounting standards, 1,000 large SOEs to adopt new state asset management regulations, and 100 large and medium-sized to be incorporated as shareholding companies operating under their own boards of directors. In addition, 18 cities were chosen to experiment with comprehensive reform programs, including corporate restructuring and municipal provision of social insurance services to workers. Recently, in March 1996, the government announced its intention to concentrate reform on 1,000 large SOEs and dispose of the roughly 90,000 small SOEs through mergers, leasing, or sale.

Given the magnitude and complexity of the task, it is not surprising that progress has been limited. Of the 100 selected for incorporation, 61 have done so, but altering the form of corporate structure is the easiest part of the program. Among the 18 cities selected for reform experiments, several have successfully completed bankruptcy proceedings on loss-making enterprises and laid off hundreds of thousands of workers without incident. However,

out of the 100,000 SOEs and the estimated 15 million redundant workers, this is a very small beginning.

#### HOUSING AND SOCIAL WELFARE

The largest obstacle to enterprise reform has been the employee welfare system, described above, that guarantees the workers cradle-to-grave benefits. These benefits are provided directly by the SOEs and constitute a heavy burden on them, especially in the face of increasing market competition from other types of firms—such as collectives, township-and-village enterprises, and foreign-owned businesses—which are not similarly burdened. To create a level playing ground, the SOEs must be relieved of these burdens.

Reforms in housing, medical care, children education, and old-age pension were started before 1994; some of these have been accelerated since. Besides vigorous housing construction in all major cities, rents have been raised and experiments with sales have begun. Although little progress has been made on medical care and education because of lack of funds, reportedly 70 percent of the urban workers have joined some sort of pension system, and 53 percent are now covered by unemployment insurance. In addition, 50 million rural workers have joined a national rural old-age pension plan. Out of a total rural population of 900 million, this is a mere fraction. Nevertheless, it is a significant beginning.

#### TAXATION

Another major component of the reform program is a complete overhaul of the nation's taxation system, launched in 1994. The goal was a modern taxation and revenue-sharing system based on the principles of equality of tax burden, simplicity of tax administration, and buoyancy of tax revenue with the expansion and contraction of the national income. The new tax system introduced a unified single income tax for all enterprises, a broad-based value-added tax (VAT) covering almost all goods and services, excise taxes on a few selected commodities, and a business tax on services not covered by the VAT. Revenue sharing between the central and local governments is now clearly defined, and a national tax administration has been established to collect central taxes as well as tax revenues to be shared with the local governments.

The implementation of tax reform is an enormously difficult task. Old habits of tax evasion are hard to change, and fraud is rampant. For instance, in 1995 the total amount of export tax-refund under VAT exceeded the total VAT collected from their production. The difficulties of implementation are also reflected in the continued fall in the government revenue as a ratio to GDP, slipping from 13.8 percent in 1993 to 12.4 percent in 1994, and 11.3 percent in 1995.

#### FOREIGN TRADE AND FOREIGN EXCHANGE

In its bid to enter the World Trade Organization (WTO), China has reduced its import tariff rates to an average of 23 percent from 40 percent in 1992 and eliminated two-thirds of the import quotas and other quantitative restrictions. In addition, a unified exchange rate was established in 1994 to replace the previous dual exchange-

rate system. The exchange rate is now determined by the market through the banks, with central bank participation in the market to help stabilize the rate. Moreover, the onerous foreign-exchange certificate imposed since 1980 on tourist and foreign business spending in China has been abolished. And exchange controls on trade and all trade-related transactions have been removed. Recently, the authorities declared that the national currency would become convertible on all current-account transactions by the end of 1996, thereby making China one of the International Monetary Fund's "Article VIII" member countries.

#### THE FINANCIAL SYSTEM

On the domestic side, one of the most important marketization programs is the reform of the financial system. The authorities intend to overhaul the entire financial system in order to free it from vestiges of the old command economy and transform the system into one operated according to market principles. First, the central bank has been given more independence, but still functions under the State Council's direction, in carrying out its responsibilities. Monetary policy is now explicitly aimed at price stabilization. Second, banks and nonbank financial institutions are required to operate on a commercial basis. Policy loans are to be shifted to three policy banks specifically created for that purpose. Third, the central bank is charged with fostering the development of competitive money and capital markets under its supervision and regulation, for the provision of liquidity and efficient allocation of capital.

Thus far, the basic legal framework for financial reform is largely in place. Accounting and auditing procedures for banking operations have been formulated, and staff training programs have been started. The credit plan has been abolished,<sup>1</sup> and an inter-bank fund market has been restarted under close central bank supervision. The three policy banks: an export-import bank, an industrial development bank, and an agricultural financing and development bank, are in operation. However, the problem of policy loans remains unresolved, and banks must continue to provide policy loans. Interest rates are still regulated by the central bank. And, despite claims of the economy's successful "soft landing" in 1995, the end of stop-go monetary policy is not yet in sight.

#### LAW

With the 1994 reform, the pace of legal reform accelerated. The People's Congress set a goal to complete the basic legislation for a "socialist market economy" by the end of the century. In 1995 alone, it passed 13 laws of fundamental importance to the economy, including laws on the central bank, commercial banks, insurance, securities, taxation, corporation, and environmental protection. Also notable were new laws on local election, the court system, the police, education, food standard, science and technology. The rapid increase in the number of lawyers in China is another sign of the growing importance of law in the society. There were 82,000 in

<sup>1</sup>Recently, sources within the People's Bank of China, the nation's central bank, indicated that the credit plan was abolished in early 1995. Curiously, no public announcement has been made. Information on this important policy shift is too scanty to permit analysis at this stage.

1995 compared to less than 50,000 in 1992 and less than 1,000 in 1980. Progress toward effective law enforcement, however, remains very limited.

### CONCLUSION

The question on China's economic prospects by 2010 can now be answered. The answer is implicit in the analysis above. Nonetheless, it is useful to make it explicit, together with a consideration of China's role in the world economy.

First, economic growth is not the same as economic development. In the past 17 years, China has achieved rapid economic growth, but made little progress in economic development. Without the essential parallel development of supporting market institutions and conventions, eventually the economic costs of growing chaos and wastefulness will override whatever remains of the economy's growth potential.

Second, the comprehensive reform program launched in 1994 reflects the authorities' recognition of the numerous basic deficiencies in the economy, requiring correction. In the last two years, considerable progress has been made in foreign trade and foreign exchange liberalization, the development of a modern tax code and revenue-sharing arrangements, as well as in social and economic legislation. However, despite these impressive achievements, enormous difficulties continue to confront enterprise reform, housing and social welfare, tax administration, financial reform, and law enforcement.

Hence, the answer to the question posed in this paper must be a conditional one: China's output growth is sustainable into the next century, say, to 2010, if and only if it succeeds in implementing its current comprehensive reform program. Predictions of China's becoming a great economic power by the year 2010 are greatly exaggerated. At best, it could become another newly industrialized country. Nevertheless, because of its sheer size China remains an attractive market for businesses that are experienced in trading with or investing in developing economies.

As an extension, I shall attempt a few cursory remarks on two additional questions: First, what will determine the outcome of the current reform program? And second, what should be China's role in the world economy?

On the first question, it would seem premature to hazard any judgment on the prospects of the reform program's outcome as it was launched barely two and a half years ago. Yet, I cannot help but be impressed by the earnestness and vigor with which the program is being implemented. Progress has been made, and a solid foundation is being laid. Nonetheless, this outside observer fears that in the program's implementation, again formalism might reign over substance, and certain basic errors in economic thinking might continue to obstruct progress. A few examples will suffice to illustrate each of these two fears.

### FORMALISM

An obvious example is law. It is both necessary and commendable to design and pass the large number of basic laws as the na-



tional legislature has done in recent years for the regulation of economic and social activities. But, without effective enforcement the effort will be of little avail. When this problem is raised in discussions, too often one hears in reply rationalization in terms of the enormity of the task involved. One understands and sympathizes, but cannot help but wonder what concrete action plan is being prepared to improve enforcement. A gigantic political commitment, comparable to the launching of the current reform program in 1994, would be necessary to get such an action plan started.

#### ERRORS IN ECONOMIC THINKING

After 17 years of successful reform, the authorities still retain some remnants of distrust of the price mechanism. As stated, most of the prices have already been freed of government controls. But, it is in the remaining areas deemed by the authorities to be of critical importance to the national economy that price controls still remain. These areas include basic materials, such as steel and cotton; energy, such as coal and electricity; transportation, such as railroad; staple food, such as grains and edible oil. Policies designed to ensure their plentiful supply at low prices are precisely those that retard production, contribute to shortages, and add to the burden of budgetary subsidies. Administered interest rate is another example of misconceived policy that distorts credit allocation and thwarts the development of money and capital markets in China.

Finally, on China's role in the world economy, the nation's open-door policy has contributed greatly to the success of its economic growth but, at the same time, exposed its economy to the vicissitudes of the world economy and world politics. That is the price of being a member of the world community. Like all other members, China too must be prepared to accept the rules and obligations of the community—both in form and in spirit.

Moreover, because of its size and influence in the world economy, China ought to take on a more active role in helping to shape the rules of the world community. After the break-up of the Soviet Union in 1990, the world community has been in flux. A post-Cold War new world order has yet to emerge. China could and should play a significant, constructive role in the development of that order.

For its part, the rest of the world must recognize China's potential role and actively encourage and assist China to participate in the construction of a new world order. To this observer, a policy of threat and confrontation has proven to be counter-productive. The sooner an effective alternative approach is adopted, the better it will be for China and the rest of the world.

# PROSPECTS FOR CHINA'S INTEGRATION INTO THE GLOBAL ECONOMY

By Dwight Perkins \*

## CONTENTS

	Page
Summary .....	34
China's Integration into International Markets .....	35
Could Progress Toward an Opening Trading System Be Reversed? .....	38

## SUMMARY

Twenty-five years ago China's economic policies were designed to minimize the country's involvement with the global economy. Even those who advocated the import of high technology equipment from abroad were immediately subject to vicious attacks from the nation's anti-foreign ideologues. Despite these attacks, during the 1970s China did begin to cautiously turn to sources outside China for key products, and between 1970 and 1978 China's foreign trade ratio (exports plus imports divided by domestic product) rose from roughly 6 to 10 percent. With the dramatic political changes in the 1976-1978 period, caution was no longer the order of the day, and China turned its economy outward with great determination. The official trade ratio rose from 10 percent of GDP in 1978 to roughly 50 percent by 1995, although these official figures probably overstate the true magnitude of the rise.<sup>1</sup> Even if this latter figure does overstate the true ratio, there is no question that China has achieved a high level of foreign trade for a country so large in terms of both population and geographic area.

But there is more to integration into the world economic system than simply a quantitative expansion in foreign trade and foreign investment. Effective long-term integration into the international economic community involves the introduction and application of the numerous laws and rules that govern international economic behavior. These rules are designed, for the most part, to create an even playing field on which all of the trading nations can compete. China, in response to the requirements of this system, has written,

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<sup>1</sup> There are several problems involved in comparing Chinese foreign trade figures with Chinese GDP estimates, some of which derive from the fact that Chinese trade is calculated in U.S. dollar terms and then converted into *renminbi* at the official exchange rate. Thus the trade ratio would be over- or understated depending on the degree of undervaluation or overvaluation of the exchange rate. Relative prices of exports and imports would also differ from those used to calculate GDP. For a further discussion of these issues, see Nicholas Lardy, *Foreign Trade and Economic Reform in China, 1978-1990* (Cambridge: Cambridge University Press, 1992).

passed and promulgated large shelves full of new laws and regulations, and more are coming out on a regular basis. But is China's behavior really governed by these laws and regulations, or are they largely for show, something to keep foreign investors and China's trading partners happy?

This brief essay addresses two broad questions. The first is whether and to what degree China is creating a market system that is increasingly consistent with the rules governing the global economy. The second addresses whether or not China is likely to continue along the path toward more complete integration into this global economy. Continuing along the path, it will be argued, depends as much on what happens in the world outside of China as it does on what happens within China itself.

### CHINA'S INTEGRATION INTO INTERNATIONAL MARKETS

That China has become a major trading nation is not subject to serious debate. Chinese consumer products can be found in profusion in retail stores from Bozeman, Montana to Hanoi, Vietnam and Nairobi, Kenya. Basically, China has taken over the labor-intensive end of the market for exports of manufactures from South Korea, Taiwan, and Hong Kong, much as these three tigers took over these markets from Japan two decades earlier.

In economic terms, the concept of a "Greater China" that includes the economies of Hong Kong and Taiwan is already taking shape. Employment in Hong Kong's manufacturing sector has been declining steadily for years as firms have moved their operations to Guangdong Province. Much the same thing has been happening, but with a lag, with many of Taiwan's labor intensive sectors such as shoes, whose factories have been moved to Guangdong and Fujian. Hong Kong and Taiwan have also shifted production to elsewhere in Southeast Asia—Vietnam, Indonesia, and Malaysia—but the largest transfer has been to the Chinese mainland. In a more modest but still substantial way, South Korea has been shifting some of its operations to China. It is only a slight oversimplification to say that Taiwan has shifted its large trade surplus with the United States to the Chinese mainland as well.<sup>2</sup> Taiwan now runs a large trade surplus with China as it exports key inputs to its enterprises in China, which then export the final product to the United States.

Foreign direct investment by overseas Chinese resident in Southeast Asia is also playing a very large role in the China of the 1990s. In 1994, US \$24.4 billion of the total realized foreign direct investment in China of US \$33.9 billion came from Hong Kong, Taiwan, and Singapore.<sup>3</sup> Japan and the United States, by way of contrast, invested only a little over US \$2 billion each, which was still more than all of Europe, East and West, taken together. Several major ethnic Chinese entrepreneurs from Malaysia and elsewhere in Southeast Asia have shifted the center of their operations

<sup>2</sup>This statement is an oversimplification in large part because trade surpluses, particularly overall surpluses as contrasted to bilateral surpluses, are driven more by macro economic behavior (an excess of savings over investment) than by such things as the cost of labor, trade restrictions, and the like.

<sup>3</sup>State Statistical Bureau, *China Statistical Yearbook, 1995* (Beijing: China Statistical Publishing House, 1995) p. 555.

to Hong Kong to be closer to their investments in China. In China, therefore, investment even more than trade has a distinctly Chinese character.

The dominant role of overseas Chinese in foreign direct investment, and the much more modest role of the United States, Japan, and Europe, is to an important degree the result of the incomplete nature of China's economic reforms. In the partially reformed twilight zone between plan and market in which the China of 1996 is located, it is easier for ethnic Chinese than non-Chinese foreigners to operate. Overseas Chinese, not always but often, have the personal ties (*guanxi*) and knowledge of the way things are done in Chinese societies that are often missing among other groups. If China is to become fully integrated into the international economic community, this difference will have to begin to erode, and it is probably China that will have to do most of the adjusting to make this possible.

In many ways China has already made substantial progress toward the creation of a full blown market economy where all compete equally against each other in the context of market driven forces. Of the five key elements that must be in place for a market to function well, China has made it most of the way to what the market requires with four of them. First, despite inflationary bouts in the late 1980s and first half of the 1990s, China has maintained a reasonable degree of price stability without resorting very often to price and quantitative controls. Second, the percentage of goods and services allocated by the market rather than distributed through government administrative channels has steadily risen to the point that today over 90 percent of most such goods and services go through the market. Third, prices increasingly reflect real scarcities in the Chinese economy. China's dual price system, where many products were still distributed at state-set, below market prices, is largely a thing of the past. Most prices at which goods and services are traded are market prices. Fourth, most firms in China must compete for business; few are granted monopolies over either a local or national market.

These changes have made it much easier for foreign traders and investors to work in or with China. Foreign exchange, for example, while not fully liberalized for trading purposes, is far easier to obtain than was the case ten or even five years ago. Intermediate inputs of all kinds are no longer allocated by planners, but are available to anyone who has the cash to pay for them. The beneficiaries are not only foreigners, but also China's tens of thousands of township and village enterprises, which lack the political clout to get allocations through the plan. Among the factors of production, labor, capital, and land, only labor is allocated primarily by market forces, whereas capital and land remain subject to administrative controls and political decisions, but that is changing as well.

It is with the fifth element of what a market requires where China has made the least progress, or to put it differently, has the furthest distance yet to travel. For a market to work well, enterprises, whether public or private, must behave in accordance with the rules of the market. The most fundamental rule is that enterprises must maximize profits by raising their sales or by cutting their costs. Increasing profits by getting the state to give the enter-

prises more subsidies, more protection, or more state favors of other kinds leads to deviation from what a well-functioning market requires.

China's economic system, however, is full of state-generated deviations of this kind, most of them leftovers from the old system of centrally planned commands. State-owned enterprises, in particular, are under the close supervision and guidance of government ministries and provincial authorities. State enterprises have access to cheap credit which they don't always have to pay back, but they are also subject to demands by government for special payments that have no relationship to the tax code. The managers of these enterprises are picked by government and party officials, and their careers depend on doing what those officials ask them to do.

In a properly functioning market system, credit would be available to all firms with a healthy balance sheet at market rates of interest. Failure to pay back the money would lead to bankruptcy in accordance with well established rules for bankruptcy proceedings. Taxes would be paid according to the tax laws, no more and no less. Managers would be picked by boards of directors who represent the owners, whether those owners are private individuals or public bodies such as certain pension funds. Those boards of directors would also have to operate within certain transparent rules.

In short, a market system works best when there is the rule of law—not any law, but laws that are both transparent and fair to all parties. A market, of course, does not require a perfect legal system any more than it requires perfect information or perfect anything else. But China comes out of an historical tradition where the rule of law played only a secondary role. The key to good governance, in the Confucian tradition, was the rule by good men, not rule by good laws. If you had good men, these men could be given wide latitude to do at their discretion whatever they thought was best for society. Mao Zedong carried this a step further than most Confucians by abolishing all lawyers and most laws. Since the reforms began in 1979, laws have been written at an increasing pace to fill this void and the number of lawyers is rising rapidly, but the values and traditions of a thousand years are not so easily replaced. It is one thing to write laws, it is quite another to create a legal system that will enforce those laws vigorously and fairly.

The relevance of these issues to China's role in the international economic system is straightforward. The international economic system is governed by laws that through treaties have been made globally consistent, at least for the advanced industrial nations. Not everyone always abides by these laws, but there is recourse against those who don't. China has accepted more and more of these rules over time and has rejected others. The biggest issue in the mid-1990s was over whether China could join the World Trade Organization (WTO) as a developing country, that is, a country that could postpone application of some of the WTO's more stringent rules that are applied to industrial countries.

But the main issue is not over WTO rules or a particular definition of intellectual property rights. The real question is whether China will move steadily if only gradually toward a rule-based or law-based system. I believe that most objective observers would say that China has been trying to move in this direction over the past

fifteen years, but the historical legacy makes it a slow process even when the effort is sincere, which isn't always the case.

As long as China remains a system where government is by people with a high degree of discretionary authority over the economy and enterprises are run by people beholden to those government officials, there will be ongoing conflict between this system and the rules of the global economy. Even if formal agreements are signed that say, for instance, that China cannot apply formal domestic content goals in joint ventures in the automobile industry, there will be little to stop a government official from phoning the plant manager and accomplishing the same purpose informally. There is nothing unusual about this. It happens in all of the many countries where government officials have a great deal of discretionary power over industries. Change to a law-based system will take time even if China makes a continuing and concerted effort to move toward this goal.

There are Western critics of China who suggest that China should move quickly toward the rule of law in economic affairs and this should lead almost as quickly toward full application of the rule of law in areas such as human rights. To these people, the failure to achieve these goals immediately leads them to call for the ending of most favored nation treatment (MFN) for China. Their view, it would appear, is that liberalization could somehow transform Chinese political behavior and the very nature of the system overnight. But what should matter most to Western policy makers is not the shortcomings of the system of the moment, as distasteful as aspects of that system might be, but whether China is moving at a reasonable pace in the right direction. The rule of law in economic affairs, difficult as that is proving to achieve, is easier than achieving the rule of law in political affairs, but the achievements over time in one area are likely to be helpful in the other.

#### COULD PROGRESS TOWARD AN OPENING TRADING SYSTEM BE REVERSED?

For all of the caveats that need to be made, there is no question that through 1995 at least, China's economic system had taken and was continuing to take major steps toward a market-based and, to a lesser degree, a law-based system. But by the mid-1990s, the international political framework that had made it possible for China to successfully open its economy was unraveling at the edges.

The central external problem threatening China's turn outward has been the growing tension in U.S.-China relations. The United States is important to China not solely because the United States is the last remaining superpower. It is also important because the United States is one of China's most important trading partners. The only close competitors for this status are Hong Kong, which in economic terms is already a part of China, and Japan. Japan's total trade with China is 41 percent larger than that of the United States, but it is the United States that provides China with by far the largest market for its exports, some \$21.5 billion in 1994 and \$24.7 billion in 1995 if one uses Chinese customs statistics, a much

larger figure (\$38.8 billion in 1994) if one uses U.S. figures.<sup>4</sup> Any threat to China's position in the American market, therefore, is a threat to China's whole outward-oriented strategy.

The danger to this trade does not come primarily from bilateral trade disputes and negotiations between China and the U.S. Trade Representative's office. Chinese pirating of computer software and American made movies is a problem and Chinese government efforts to live up to agreements to end these practices have not been implemented with much vigor. The United States has also been known to allow its anti-dumping statutes to become an only modestly disguised form of dumping. But these are the ordinary problems found in trading relations between most Asian countries and the United States at one time or another.

The differences in views between China and the United States over what China must agree to before it is admitted to the World Trade Organization are also not the major danger to U.S.-China trade. Chinese political leaders would like China to join the WTO as a developing nation because that would give them the maximum discretion to do whatever they thought was best. But maximum discretion for one's political leaders is not always best for the country as a whole. Pressuring China to live by the rules of the WTO is a way of pushing China to accelerate its efforts to introduce the rule of law at least into economic affairs. Those within China who totally oppose this goal are opposing their own leaders' efforts to become an equal partner in the economic system. There can be honest differences of opinion over the pace at which these goals are to be introduced, but not over the long term goal. Vigorous but realistic negotiations between China and the existing WTO nations over the conditions of entry contribute to helping China to turn itself into a rule-based society.

The problem is that China's trading relations with the industrial countries in general and the United States in particular are often not governed by this long term vision of what can be accomplished. A whole range of issues not directly connected to trade are a source of tension between China and the United States. These issues include America's concern with China's human rights, and democracy will be used to undermine the regime and the very stability of the Chinese nation. There is the issue of Taiwan and whether it will declare independence or whether its eventual integration with the mainland will occur peacefully. The question of Hong Kong's future will continue to be an issue in U.S.-China as well as U.K.-China relations long after 1997. There is the question of nuclear proliferation and the even greater issue of China's role in the international security of Asia and the Pacific.

The major difficulty with all of these issues, from the perspective of this essay about trade, is that the United States has limited capacity short of war to influence China to do what the United States

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<sup>4</sup>The difference between the Chinese and U.S. estimates of their bilateral trade is due mainly to the different way the two countries treat trade that involves some processing in Hong Kong before it goes to its final destination in the U.S. Most objective observers feel that a figure reflecting the true nature of the size of this trade would fall somewhere between the two extremes. The 1995 data are from General Administration of Customs of the People's Republic of China, *China's Customs Statistics*, December, 1991, pp. 4-6. The U.S. estimate is from Directorate of Intelligence, *China's Economy in 1994 and 1995: Overheating Pressures Recede, Tough Choices Remain* (Washington, December 1995), p. 23.

deems desirable. China, of course, has even less capacity to pressure the United States to do what China wants, at least for the immediate future. America can conduct quiet diplomacy to persuade China it is in China's own interest to do something, it can publicize what America perceives as wrongdoing on China's part in the hopes of embarrassing China into backing off, or it can apply trade sanctions. Since 1989 when all manner of relationships with China were cut off or partially curtailed, publicity and trade sanctions, or the threat thereof, have become the weapons of choice. Trade sanctions haven't actually been applied, for the most part, but they are regularly being put on the table by one or another part of the U.S. government or by private groups.

This situation would be complicated enough if these issues were being raised in a systematic way by people with a broad perspective on the many dimensions of U.S.-China relations and were being responded to by Chinese officials acting and speaking from a similar perspective. But more than in the pre-1980 past in U.S.-China relations, these issues are being heavily influenced by domestic politics on both sides of the Pacific.

The danger to the growing U.S.-China trade, therefore, is real. If generalized trade sanctions were to be applied to China, even if only the United States applied them, The impact on China's exports would be large. Beyond the decline in export earnings, which China could eventually adjust to, would be the political impact in China of these actions. Forecasting Chinese politics is a hazardous occupation at best, but one has to assume that an across-the-board trade sanction such as the cutoff of MFN would play into the hands of those in China who have mistrusted the dependence on foreign trade and investment all along. The forces for turning China back inward would be strengthened. An inward looking China in the year 2000 or 2010 would be a far larger problem for the world community than was the inward looking China of the pre-1978 period.

For seventeen years China has made considerable if uneven progress toward integration into the global economic system. The question for the next decade is whether politics on both sides of the Pacific will allow that progress to continue.



# THE SECURITY CONTEXT FOR SINO-ASEAN ECONOMIC RELATIONS

By Allen S. Whiting\*

## CONTENTS

	Page
Summary .....	41
ASEAN Concern over China .....	41
South China Sea Disputes .....	42
The Taiwan Strait .....	43
Emerging Consensus .....	44
Balance of Politics .....	45
Implications for Future U.S. Policy .....	46

## SUMMARY

ASEAN is concerned over China's increased assertive nationalism in 1995-96, manifest in occupation of Mischief Reef and Taiwan Strait military exercises. This is seen as a potential threat to economic stability throughout East Asia. The ASEAN response to addressing this threat as well as specific disputes with China in the South China Sea adds a balance of politics to the evolving balance of power. U.S. policy needs better understanding of and closer consultation with the incipient political-military security regime emerging from ASEAN.

## ASEAN CONCERN OVER CHINA

On the surface, China's integration with East Asian economic regimes appears promising. Beijing's participation in Asian Pacific Economic Cooperation (APEC) summit meetings resulted in announcement by the People's Republic of China (PRC) of dramatic unilateral tariff reductions in accordance with APEC targets. PRC dialogue status with the Association of Southeast Asian Nations (ASEAN) makes it likely that compatible arrangements will be worked out as the ASEAN Free Trade Agreement (AFTA) becomes operative in the next century. The prominent role of overseas Chinese in investment and trade between ASEAN members and China facilitates development of mutual interests despite competitive aspects in overall economic relations.

Beneath the surface, however, regional security issues could raise the prospects of conflict with a negative impact on this economic interaction. Private interviews with officials in Indonesia, Singapore, Malaysia, Thailand, Vietnam, and the Philippines in

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1995–96 revealed rising concern over the increased assertive nationalism in China's approach to its disputed claims in the East China and South China Sea.<sup>1</sup> This concern rose with Beijing's occupation of Mischief Reef, claimed by Manila, in February 1995, followed by its missile firings and joint exercises in the Taiwan Strait during 1995 and early 1996.

ASEAN had made its disquiet known to China in 1992 after the National People's Congress passed legislation naming the Spratly Islands together with Diaoyutai (Senkaku in Japanese), as sovereign territory to be defended by force if necessary. In response Beijing voiced support for the ASEAN Treaty of Amity and Cooperation (TAC) although it did not formally endorse it. Earlier Chinese clashes with Vietnam in taking the Paracel Islands in 1974 and in the Spratlys in 1988 had not engaged ASEAN members directly.

Thus Chinese occupation of Mischief Reef and refusal to withdraw in the face of ASEAN's private protest in April 1995 raised questions over Beijing's willingness to comply with the TAC code of conduct that excludes force or the threat thereof. In July and August missile firings in the vicinity of Taiwan and televised joint military exercises in November cast a longer shadow of uncertainty over future Chinese behavior. This in turn could discourage investment in both China and Southeast Asia by Japan, the United States, and the European Union resulting in a slowdown of economic growth. It could also distort local economies by an arms race.

At present ASEAN officials consistently deny that the much publicized increase in weapons acquisition over recent years constitutes an arms race within the group, much less with China. Multiple motivations include reorienting defense systems, long geared to combating internal insurgency, toward maritime problems of overlapping territorial claims at sea, exclusive economic zones, and fishing disputes. Emulation and prestige also prompt copying a neighbor's acquisitions. Expanding economies and competitive arms sellers facilitate upgrading air and naval capabilities. But should China continue to flex its military muscle ASEAN defense acquisitions may have to respond accordingly, with negative impact on economic growth throughout the region.

#### SOUTH CHINA SEA DISPUTES

Indonesia, unlike Malaysia, the Philippines, Vietnam, and Brunei, has no dispute with China in the Spratly Islands. As an outsider, it hosted annual informal workshops on the South China Sea beginning in 1990. These addressed non-sovereignty issues such as sea level and tide monitoring, biodiversity, and safety of navigation and shipping. However, efforts to take up the disputed claims found Chinese participants from both the mainland and Taiwan refusing to allow discussion.

Privately Jakarta queried Beijing on the meaning of Chinese maps with a line around the entire South China Sea, purportedly marking the PRC territorial boundary. Concern focused on the implications for a large underwater natural gas field located north-

<sup>1</sup>I am grateful to the Woodrow Wilson Center and the University of Arizona for support in this endeavor. All interviews were private and unattributable.

east of Natuna Island where the Exxon Corporation has contracted with Indonesia for exploitation of what may be the largest such offshore field in East Asia. After many months, in 1995 Chinese reassurances at the working level, foreign minister and presidential levels, denied any claim to the island itself. However, no written commitment or specific delineation of Chinese map explicitly excluded the gas field.

In this context Jakarta modified its long-standing refusal to align with any non-ASEAN country and on December 18, 1995, signed a military cooperation agreement with Canberra. Article two pledged the signatories "to consult each other in the case of adverse challenges to either party or to their common security interests and, if appropriate, consider measures which might be taken either individually or jointly and in accordance with the processes of either party."<sup>2</sup> Although both capitals publicly denied that this constituted a defense treaty or that it was aimed at China, the agreement was so perceived and welcomed in ASEAN capitals as strengthening security ties.

#### THE TAIWAN STRAIT

Chinese military activity in the Taiwan Strait raised ASEAN concern on two levels. The first focused on the island's importance in selected areas. Taipei's promotion of "a southern strategy" encouraged economic activity in Southeast Asia that would reduce dependence on mainland trade and investment lest this give Beijing critical leverage for political purposes. As a result Taiwan became the largest foreign investor in Vietnam, the fourth largest in Indonesia, and potentially a major participant in the commercial transformation of Subic Bay and Clark Field in the Philippines. In addition, Singapore and Malaysia maintained close contact with Taiwan through quiet official channels as well as private business.

At the more general level, tension in the Taiwan Strait was seen as inimical to foreign investor confidence that is vital to continued economic growth throughout the region. Moreover, any interruption in foreign trade would particularly hurt Singapore, as well as other ASEAN members with maritime interests. As a final consideration, passive acquiescence in a Chinese use of force against Taiwan might send the wrong message to Beijing when it came to weigh future options in the South China Sea.

These factors prompted expressions of concern to Beijing through various channels. Private informal meetings between ASEAN institutes of strategic and international studies (ASEAN-ISIS) and their Chinese counterparts raised the Taiwan question. In 1994 Chinese delegates vigorously rebuffed the effort but in 1995 agreed to exchanging views, albeit without modifying their position. At the December 1995 ASEAN summit in Bangkok, concern over tension in the Taiwan Strait was expressed privately to Li Peng. Ambassadorial representations were made to Beijing as the occasion permitted.

The results encouraged ASEAN diplomacy. China abandoned resistance to multilateral discussion of South China Sea claims and

<sup>2</sup> *Australia-Indonesia Agreement on Maintaining Security*, official text issued in Canberra, December 14, 1995.

agreed to taking up the matter with ASEAN. Foreign Minister Qian Qichen pledged freedom of navigation throughout the area. He also moved the basis of China's claim from historic precedent to international law, pledging ratification of the United Nations Convention on Law of the Sea. This in turn makes compulsory the settlement of disputes without force. Finally Beijing's initial skepticism over the ASEAN Regional Forum (ARF) disappeared with its agreement to co-chair a sub-committee.

#### EMERGING CONSENSUS

The ASEAN way of addressing disputes is by accommodation and consensus privately negotiated. These are interrelated components that emphasize politics rather than power. Since its inception in 1967, accommodation and consensus have ameliorated tension without necessarily solving conflicting claims, such as between the Philippines and Malaysia and between Indonesia and Malaysia. This approach also facilitated the resolution of differences within ASEAN over Vietnam's invasion of Cambodia. The result enhanced regional and international negotiation of Vietnamese withdrawal. Through this process public unity has been achieved despite marked diversity in political, economic, religious, and ethnic factors.

This diversity is particularly marked in comparing Thai and Vietnamese views of China, with the remaining ASEAN members falling between the two. In the 1980s and 1990s, Bangkok's relations with Beijing have been predominantly positive, manifest in their united front supporting anti-Vietnam guerrillas during Hanoi's occupation of Cambodia as well as in subsequent military exchanges. By contrast, in addition to the aforementioned Chinese attacks in the Spratly Islands, the People's Liberation Army (PLA) invaded Vietnam for three weeks in early 1979, ostensibly as punishment for Hanoi's ouster of the Pol Pot regime. A long tradition of Chinese efforts at hegemony over Vietnamese dates back two millennia and is a ready reference in Hanoi when discussing future prospects.

Yet despite the wide range of degree to which separate national interests are seen as threatened by possible Chinese actions, an emerging consensus has held ASEAN together in the face of Beijing's blandishments for bilateral negotiation of the Spratly disputes. Its proposals for joint exploration of underwater resources while holding fast to Chinese claims of sovereignty failed to elicit agreement. Likewise Beijing's insistence that the Taiwan question is wholly an internal matter not subject to discussion with others has not stopped ASEAN leaders from privately expressing concern to PRC officials.

ASEAN is careful, however, not to signal a collective anti-China stance. On the contrary, China's participation in multilateral regimes associated with security in East Asia is seen as basic to proposed systems for anti-piracy and search-and-rescue operations. China's continued membership in ARF is held to be essential for regional dialogue on security matters. Opposition to the threatened use of force is explicitly stated in terms of mutual interest for China as well as ASEAN in expanding foreign investment and trade throughout the region.

In accordance with this approach, ASEAN leaders scrupulously avoid use of the term "China threat" because it is seen as risking a negative reaction in Beijing and is antithetical to reducing tension. Thus the Indonesia-Australia military agreement refers to "adverse challenges," explained by Canberra specifically as replacing the standard use of "external threat" in deference to "sensitivities" in Jakarta.<sup>3</sup> More basically there is no private expression of alarm over an imminent threat because Beijing is not seen as capable of projecting military power in the near future. Therefore it is forced to pursue a political game wherein military force is foreshadowed as a potential future option but with no immediate aggressive use.

#### BALANCE OF POLITICS

This ASEAN analysis posits a balance of politics in addition to a balance of power as another approach to reducing tension and avoiding conflict with China. While the People's Liberation Army is limited in power projection capabilities Beijing is also seen as limited in political options until the succession to Deng Xiaoping is finally resolved. During this transition period Chinese policy will remain subject to assertive nationalism promoted by military and civilian groups concerned over China's regional status. It will also be promoted by a regime that admits facing a serious loss of popular support because of corruption, agricultural problems, and ideological atrophy. Rival leaders will be constrained to demonstrate their nationalistic credentials. Under these circumstances consistent but careful communication is required between Beijing and those with whom disputes exist so as not to strengthen the more assertive elements contending for policy.

ASEAN's position in this balance of politics between Beijing and Washington requires that it side with one or the other depending on the issue while making clear to both it is not aligning with either. Thus on human rights ASEAN defends Beijing's position that this is an internal matter not to be addressed publicly by other governments. But on the use of force and threat thereof, ASEAN sides with Washington without, however, publicly joining in expressions of concern over the Taiwan Strait exercises.

By emphasizing a balance of politics ASEAN does not reject a balance of power as ultimately fundamental to peace and stability in East Asia. This is why the Indonesia-Australia accord was welcomed for bringing Canberra into a modest security commitment and moving Jakarta closer to the Five Power Defense Arrangement linking Great Britain, Australia, and New Zealand with Singapore and Malaysia. It is also why the desire for American credibility and consistency in the commitment to maintaining stability in East Asia puts a premium on the Japanese-American security relationship. However, just as ASEAN leaders maintained public silence during the Taiwan Strait exercises, so too they refrained from public praise for the Clinton-Hashimoto summit. Privately, however, they were reassured by the priority given to common security interests over economic differences.

<sup>3</sup> Official transcript of Australian Prime Minister P. J. Keating, Presidential Palace, Jakarta, December 18, 1995.

## IMPLICATIONS FOR FUTURE U.S. POLICY

ASEAN is approaching its fourth decade. Starting with five members, it presently encompasses seven, including Vietnam as a wholly different political system with a dramatically different past relationship with ASEAN as well as with China. Laos, Cambodia, and Burma are in line as prospective members with pressure from India to join eventually. Meanwhile ASEAN is trying to develop ARF as a forum for substantive dialogue on security in East Asia. Still an ongoing process, ASEAN deserves American attention, understanding, and consultation as the only established multilateral organization in East Asia that has developed an enduring political security regime.

ASEAN's maintenance of a balance between Beijing and Washington meets varied objectives. The refusal to side with the United States on human rights is self-serving for those ASEAN regimes that violate them. However, it also serves a larger purpose in conformity with basic U.S. interest, namely the avoidance of confrontation with China on an issue of domestic politics in favor of protesting the use of force as an instrument of foreign policy. The reduction of tension serves foreign investment and trade in China as well as Southeast Asia. This in turn raises living standards and generates a multiplicity of interests that can shape on Chinese policy, foreign as well as domestic. In this regard it is worth noting that southeast coastal provinces reportedly protested the March 1996 exercises as jeopardizing their investment prospects.

ASEAN's disputes with China over the Spratly Islands in the South China Sea parallel Japan's dispute with China in the East China Sea, where Beijing lays claim to the entire continental shelf, including the Senkaku islands. Both disputes block access for geological exploration to ascertain how much and how exploitable are reserves of oil and natural gas believed, but not yet proven, to be available. Energy demands in the growing East Asian economies, first and foremost in China, threaten to raise oil and gas prices worldwide in the next century. Alternatively, China's primary reliance on coal will raise pollution levels and damage the ozone layer. Thus finding a formula to set aside, if not resolve, sovereignty disputes for the sake of mutual interests throughout the region challenges U.S. policy as the dominant power in East Asia.

This requires close and continuous U.S. consultation with ASEAN as a primary actor, as well as with China and Japan as major powers. Only a viable political security context will permit economic growth in the region that will benefit American trade and investment. During the Cold War bilateral and multilateral military security relationships led by the United States answered the political-military threat posed by the Soviet Union in East Asia as elsewhere. In a post-Cold War environment the balance of power in East Asia cannot be fashioned in a similar manner because there is no such agreement on the challenge. Basically such a balance must be built on the bilateral American-Japanese alliance, but it can be supplemented by a balance of politics that incorporates ASEAN in the larger ARF framework. In this way dialogue strengthens confidence as well as deterrence and facilitates the integration of China into East Asian political and economic regimes.

# THINKING ABOUT CHINA

By James J. Przystup \*

## CONTENTS

	Page
Summary .....	47
A Look at the 20th Century .....	47
The Role of China as an Emerging Power .....	49
China's Relationships with the United States and Asia .....	50

## SUMMARY

The article, "Thinking about China," briefly reviews U.S.-China relations in the 20th century and looks at China today and the state of contemporary U.S.-China relations. Looking ahead, China's emergence as a great power is viewed as among the defining challenges for the United States and the international system during the first quarter of the next century. Strategies for dealing with China are considered and their relative effectiveness weighed. The author concludes that a clear and consistent interest-based strategy offers the best hope of managing the challenge of China in the next century.

## A LOOK AT THE 20TH CENTURY

Predictions about where China is going, what China will become, and what it all might mean for the United States have always been a very risky business. A brief look back across the 20th century only demonstrates just how risky.

In the early years, many Americans viewed China as an awakening giant, the nation of the future in the Far East. In 1905, one magazine, *The Independent*, predicted that China would become "the greatest military power in the world" within twenty-five years. In 1908, Theodore Roosevelt portrayed China's awakening as one of the "great events of our age." Roosevelt's characterization reflected a then widespread American optimism toward China, its future, and ultimately the future of America's relations with China.

The collapse of the Qing dynasty and the Chinese revolution of 1911 only served to reinforce that optimism. In the United States, China's revolution was portrayed as a contemporary version of America's own. Americans saw the "new ideals" which had taken root in China as broadly representing the "American spirit of democracy, human rights, fair play and equal opportunity." On its editorial page, *The Independent* observed that republican China

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was "extending her hand across the Pacific to grasp ours," asking the United States "to teach her how to be free and happy and strong."

It hasn't quite worked out that way. In retrospect, the 20th century has not lived up to the promise of these early versions of the rosy scenario. For China, this century has been marked by the Boxer rebellion and the lease-hold competition among the imperial powers; warlordism, civil war, and the triumph of the Chiang Kai Shek and Koumintang in the 1920's; the Japanese invasion, civil war and the communist revolution in the 1930's and 40's; and the twin disasters of Maoism—the Great Leap Forward in the mid-1950's and the Cultural Revolution of the late 1960's.

United States attitudes and policies toward China have ranged across a broad spectrum, from friendship and cooperation to hostility and isolation and back again, as events in Asia have affected American interests. Across this century, political leaders, policy makers, and the general public alike have broadly understood American interests in Asia to encompass defending freedom of the seas, assuring equality of commercial opportunity, preserving China's territorial integrity, and preventing any one power from dominating the region.

At the turn of the century, in the face of European and Japanese competition for special rights and privileges in China, the United States championed the Open Door and China's territorial integrity. In 1931, as the Japanese military moved into Manchuria, Secretary of State Henry L. Stimson pronounced a "non-recognition" doctrine with regard to Japan's aggression and the establishment of the puppet state of Manchukuo. Of course, non-recognition also meant non-involvement, which remained Washington's dominant policy even as Japan launched a full-scale invasion of China in the late 1930's. Following Pearl Harbor, the United States aided and cooperated with the Nationalist government against Japan.

At the end of the Second World War, civil war again broke out in China and led the United States to attempt to mediate a settlement between the Nationalist government and the Communist forces. Following the Communist victory in 1949 and China's intervention in the Korean War, United States strategy shifted to isolation and containment of the government in Beijing. United States policies toward Asia were driven by the imperatives of this strategy during the two decades before President Nixon's historic trip to China in 1972. The Nixon visit marked a strategic shift from containment to cooperation with China against the Soviet Union.

Following the death of Mao Tse Tung in 1976 and the fall of the Gang of Four, Deng Xiaoping emerged as China's paramount leader. Seeking to recover from the social and economic ravages of Maoism, Deng launched China on a modernization program in 1978. The Four Modernizations, as the strategy came to be known, focused on agriculture, industry, science and technology and the military with the objective of creating a modern China by the year 2000. Modernization of China's military, the People's Liberation Army, was put at the end of the priority list.

Since 1980, China's annual growth rate has averaged close to nine percent. Many economists are projecting that at some point in the first quarter of the next century China will have the world's



largest economy measured by GDP, should growth continue at relatively similar rates. While China's ultimate national objectives are open to debate, success in its modernization strategy will require access to international markets, finance, and technologies. Success will also require a stable international and regional environment which will facilitate China's economic growth and development.

To this end, China has, since the late 1980's, normalized diplomatic relations with a number of its Asian neighbors; Singapore, Indonesia, South Korea, and Vietnam all are countries with whom the PRC has had a troubled history. Over North Korea's strong resistance, Beijing then joined with Washington and Seoul to support the simultaneous entry of both Koreas into the United Nations. In the early 1990's, Beijing abandoned its long-standing support for the Khmer Rouge and signed the 1991 Paris Peace Accords which ended the civil war in Cambodia. China also abstained in the United Nations Security Council vote which authorized the use of all possible means to expel Iraq from Kuwait, thus paving the way to the United States-led victory in the Gulf War.

Beijing, however, has also demonstrated a willingness to use force to advance its interests. In 1979, Deng Xiaoping employed the PLA in a less than successful effort to teach Vietnam lesson following Hanoi's invasion of Khmer Rouge-ruled Cambodia, then a Chinese client state. Similarly, China has used force to advance territorial claims on its periphery, in 1975 to evict Vietnam from the Paracel Islands and most recently in 1995 against the Philippines in the South China Sea. Beijing has also demonstrated a willingness to use its military muscle for purposes of political intimidation. In July 1995 and March 1996, China conducted a series of large-scale military exercises in South China and in international waters near Taiwan in an attempt to influence Taiwan's legislative and presidential elections.

#### THE ROLE OF CHINA AS AN EMERGING POWER

The ambiguity of Beijing's conduct raises a number of fundamental questions about the nature of China as an emerging great power, its relation to the international system and its significance for the United States.

For example, what kind of power is China? Does it seek a revolutionary or revisionist power seeking to transform the international system or is it an assertive but basically status quo power? Does it represent a global ideological and military adversary like the former Soviet Union? Is it Germany of the 1890's, a rising, expansionist power, looking for respect and prepared to challenge the status quo? Is it Japan of the 1930's, seeking security through expansion in what it perceived to be a deteriorating international environment? Is it Gaullist France, trying to restore national purpose through a sense of cultural nationalism and independence, while remaining a status quo power? Will it be cooperative or hegemonic? Or both?

Today, China's Communist Party remains the sole source of political orthodoxy and authority. Yet, among all but the party's most faithful, ideological commitment has all but disappeared, as political fervor has been replaced by an overwhelming focus on financial success, a by-product of China's economic reforms. Once the source

of a dynamic ideology, the Communist Party is now increasingly viewed as the source of nepotism and privilege. China's commitment to communism is being replaced by a dangerous political cynicism and surging sense of nationalism.

Economic success, however, has nurtured a growing confidence that, after a couple of bad centuries, China is returning to its rightful place in Asia. Before the Opium Wars of the mid-19th century opened the doors to exploitation and dismemberment at the hands of the West, China was the Middle Kingdom, at the center of Asia's economic and political life. China then was a generally benign hegemony, to whom tribute was paid as a matter of course, and who, in return, allowed the benefits of its civilization and commerce to spread outward.

The 21st century promises to be the century of Asia, and China remains at the very center of the region. Today, China is an emerging great power, one with a long memory of wrongs suffered at the hands of the West and acute sensitivities over issues related to sovereignty. Both in terms of theory and hard geopolitical realities, China's emergence as a great power, how it integrates itself into the international system or fails to do so, will be among the defining issues of international relations for at least the first quarter of the next century.

#### CHINA'S RELATIONSHIPS WITH THE UNITED STATES AND ASIA

The question then is how does the United States deal with China. What is our strategy? How does Washington implement it? Clearly, how the policy maker views China will significantly influence the choice of strategies for dealing with it. Is China a threat to American interests and the security of the United States? Or is the picture more ambiguous and complex? How should we deal with a country that is both assertive and cooperative?

Certainly, if China is seen as a threat, simply becoming too big to deal with, theoretically at least one answer would be to break China up into more manageable units. Such a strategy would aim at fostering division by playing on economic and territorial fault lines which run along the booming coastal regions and the less prosperous interior. At the same time, by exploiting historic centrifugal forces, the strategy would seek to pit provincial autonomy against central authority. In reality, however, the goal would strain, if not be beyond, our national resources. The costs to stability in Asia of unrest and possibly civil war in China, not to mention the likely refugee tidal wave, would be staggering, while international support for such a policy would be simply non-existent.

Intellectually, containment is the easiest fit. As a country, we've been there and done that and been successful at it. In short, we know how to do it. But, part of the challenge of dealing with contemporary China will be to move beyond familiar and comfortable policy constructs, like containment and the black and white Manichean policy universe of the Cold War. Simply put, China, at this time, is not the threat to American and allied interests like the former Soviet Union was in the late 1940's at the birth of NATO. And, unlike the former Soviet Union, China today is a major force and market in the international economy.

While Asian countries are concerned with China's growing strength and, at times, its assertive behavior, they do not yet see China as a security threat. Well aware of the permanence of geography and concerned about United States staying power in the region, America's allies and friends in Asia are not now prepared to join in a containment strategy aimed at China. Indeed, they have voiced apprehensions that actions taken in Washington may confront them with difficult policy choices, and they have cautioned Americans against prejudging the outcome. Moreover, national rivalries among our allies in Asia, most notably between Japan and South Korea, point to the difficulty of drawing a cordon sanitaire around China.

Yet, our present strategy of "engagement," or at least its tactical implementation by the Clinton administration, has not been effective in protecting and advancing American interests toward China. Chinese missiles are reportedly being shipped to Iran and Pakistan along with nuclear technology; intellectual property rights are being violated; and China has used its military muscle in the South China Sea and the Straits of Taiwan. All are against American interests. And Beijing's persistence in such actions has raised questions both about the effectiveness of our current strategy and policies and, more fundamentally, whether the basis exists for a productive relationship with China.

Some years ago, Hans J. Morgenthau, the noted University of Chicago professor of international relations, remarked that "good foreign policy is generally nothing but good common sense, and good common sense generally makes good foreign policy." Morgenthau's observation provides a starting point for building a constructive post-Cold War relationship with China. Common sense tells us that, despite our very real and significant differences on a number of issues, we do share interests in common.

For starters, both the United States and China share a common interest in the stability of the Asia-Pacific region. For Americans, the dollar-value of trade with Asia has long surpassed that of U.S. trade with Europe. In 1994, American exports to Asia grew at a rate of 16.2 percent to more than \$153 billion. The booming countries of the Asia-Pacific region purchased over \$45 billion more from U.S. exporters than the 15 nations of the European Union and almost \$30 billion more than Europe as a whole. Thus, the prosperity and economic well-being of countless Americans are intimately tied to developments there.

Likewise, stability in Asia is essential if China's modernization strategy is to succeed. In 1995, China's two-way trade with the region approached \$167 billion, accounting for close to 60 percent of China's total two-way trade. At the same time, Asia's booming economies provide China with a major source of investment capital. In 1995, foreign direct investment in China totaled over \$91 billion; of this 78 percent came from Asian countries. In brief, these figures highlight the importance of a secure and prosperous Asia to China's own economic development.

For the past quarter century, stability in Asia has been based on a tacit but shared understanding with regard to the security structure of the region—a structure that begins with the U.S.-Japan security alliance and a continuing U.S. security commitment to the

region. There is no question that this once-shared strategic understanding has been strained by the events of the past three years, and it is imperative that Washington and Beijing move expeditiously to reconfirm this central tenet of Asia's stability and security, while coming to grips with China's growing influence and power in the region.

As great trading nations, the United States and China also share a common interest in a rule-based international economic system. For China to develop a 21st century economy, Beijing will have to move toward such a system. For the United States and the international community as well, China's entry into the World Trade Organization should be a top priority issue. Beijing's acceptance and observance of international norms will only strengthen the international trading system. Conversely, failure to do so will put that order and China's own future at significant risk.

A successful United States strategy toward China should be based on and build from these shared interests. At various times in recent years, our strategic objective toward China has been defined as integrating China into the international community. This formulation makes China a passive actor, which it is not. Given its population, resources, economic dynamism and military potential, China is certain actively to shape the very nature of the international system in the coming century. Our objective then should be to create conditions which will lead Beijing to see acceptance and observance of international norms as being in its own economic, political and security interests.

Morgenthau's counsel would also caution against treating China as either enemy or friend. But it will require that American political leaders and policy makers define clearly and prioritize American interests toward China—choices have to be made, and leadership does matter. His counsel will also require that the United States quietly but firmly communicate those interests and priorities to Beijing as well as the price we are prepared to pay to protect and advance them. All need to be made crystal clear to China's leadership. Having done so, the United States must be prepared to act resolutely. While never seeking to paint China into a corner, the United States must be prepared to respond when China acts against American interests.

Ultimately, dealing with China will require an understanding of limits. Despite the importance of the United States to China, the history of the 20th century has repeatedly demonstrated that the United States cannot make China do what it does not want to do or views as not being in its interests to do. What the United States can do is to communicate our interests clearly and coordinate our approach with our allies and friends with the aim of creating an environment in which Beijing, in the pursuit of its interests, will be inclined to do the right thing. Should China fail to do so, the United States can, with their support, adjust policies accordingly.

# ENGAGEMENT OR CONTAINMENT: A CLEAR CHOICE

By Cheryl L. Hart \*

## CONTENTS

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	Page
Summary .....	53
Engagement vs. Containment .....	54
History as an Example .....	54
Current Situation .....	54
Reason for Hope .....	56

## SUMMARY

The political and economic transition taking place in China is one of the most significant events of the post-Cold War era. Success or failure of Chinese market liberalization will have far reaching implications on the world's future political and economic landscape. China is now at a critical point in this transition, having to react to U.S. policymakers who are caught in a debate between those who favor a policy of engagement and those who argue for containment. From the world's point of view, engagement—both on the part of U.S. and as a policy for other countries toward China—is obviously the preferred outcome of the debate. The debate, though, is being influenced by how China reacts to it by word and deed. Because China already feels its growing economic and political strength and because it fully intends to be a great power in the next century, the development of its relationship with the United States is and will continue to be a complex process. It will be characterized by moments of heightened tension and moments of celebration as the tensions are resolved by heightened communication and skillful diplomatic efforts on both sides. The *containment* side of the U.S. policy debate is driven by those who are pessimistic about our ability to remain a cordial relationship with a nation of 1.2 billion people that is growing rapidly within a political framework that remains authoritarian at the top. These forces include not only national security pessimists, but also commercial interests that are concerned about the nature of the competition that might arise from a powerful China in the next generation or two. These are, of course, legitimate concerns, as long as they do not become dominant. If the U.S. continues to appear hostile toward China at this pivotal moment, anti-Western sentiment could be fueled helping to revive the conservative political faction in China. As a world leader, the U.S. has a responsibility to engage China to set an ex-

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ample for other nations, and to positively contribute to China's economic and political development.

#### ENGAGEMENT VS. CONTAINMENT

In the same way, policymakers in Beijing are struggling to gain support for the "open door" policy and the market reforms first initiated by Deng Xiaoping in the late 1970s. As it stands, the reformers, including Qiao Shi, Zhu Rongji, and Li Ruihuan are in control of policy direction and promote a continuation of progressive economic policy. They are, however, faced with resistance from a faction of hard-liners who advocate a slowing, and in some cases a reversal, of reform. Misguided U.S. policy has, at times, contributed to the momentum of the hard-liners. Linking Most-Favored-Nation (MFN) status to the human rights record is a key example. U.S. threats to penalize China's economic potential, by charging higher tariffs or by limiting access to U.S. markets, have served only to strengthen the conservatives in Beijing by foiling reformers' efforts for economic expansion, and by turning popular opinion away from central authorities associated with Western-style reforms. Economic development is the driving force helping China to overcome human rights problems and to comply with international standards of trade, conduct, and law.

Engagement, therefore, supports the current leadership and promotes China's economic and political advancement. Economic growth will prevent social upheaval, and allow for the rapid reform of the state-owned enterprises, contributing to political stability in post-Deng China. As long as China is expanding economically, with the help of international support for domestic reform, the optimists will remain in power and China will emerge as a peaceful, competitive global partner.

#### HISTORY AS AN EXAMPLE

Misguided policy of a similar stripe contributed to economic and political setbacks in Japan. The Smoot-Hawley Tariff Act of 1930 penalized Japanese silk (among a host of other things) with 100% tariffs. Japan suffered a major economic setback, as almost every farmer's wife depended on silk earnings to balance the family books. As a result of Smoot-Hawley, popular opinion turned against the pro-U.S. leadership and in support of the xenophobes in the military faction. The foundations of democracy, characterized by the pro-U.S. government, were snuffed out. Instead of building on grass-roots democracy and economic opportunity, the Japanese focused on the creation of a strong military, laying the foundation for the second World War.

#### CURRENT SITUATION

There is a worrying trend of the Chinese becoming more inclined to reject political figures in Beijing who associate themselves with Western ideology, democracy, capitalism, and freedom of speech. A new book titled "China Can Say No," strongly critical of the U.S., is flying off the shelves in Beijing. Its popularity reflects hostility towards the U.S., and recent U.S. behavior is largely to blame. In May, acting U.S. Trade Representative Charlene Barshefsky was

heard demanding that the Chinese government force the closure or legalization of factories believed by U.S. authorities to be violating international property rights agreements as signed by the Chinese government in February 1995. The Clinton administration threatened US\$1.2 billion in trade sanctions if the Chinese government failed to comply with U.S. demands. At the same time, Senators and Congressmen in Washington were gathering votes to try to block renewal of China's MFN trade status. There has also been U.S. resistance to China's participation in the World Trade Organization (WTO), despite widespread international support for China's membership. Washington seems to be holding WTO membership as a carrot in front of Beijing's leadership, to be given only if China agrees to constantly shifting U.S. standards and terms for entry. Despite reaching an agreement on international property rights, staving off sanctions, and renewing of MFN in June, the overall impact of recent U.S. policy mishaps has left Chinese suspicious of Washington's true intentions.

What appears to be anti-Western rhetoric emanating from central authorities in Beijing is not, for the most part, a campaign designed to create anti-U.S. sentiment so much as a *response* to anti-U.S. sentiment already felt by the Chinese people. In Beijing last fall, a young person confessed to me that he used to admire and respect the U.S. as a model for the rest of the world. However, his opinion of the U.S. had soured while he attended a London university where the free press allowed him a true look at Washington's behavior. He, along with numerous other individuals I met, thought the U.S. was intruding into China's internal affairs, and by so doing jeopardizing China's peaceful, positive development as a member of the international community.

Still, overall, the optimists are eclipsing the pessimists in China in the struggle for transforming the country to a free-market society. Grass-roots democracy already is evident in local elections. In some corporations, employees are being allowed to vote for senior representatives. The financial system is rapidly modernizing. Convertibility in the current account has materialized ahead of schedule and domestic lending institutions are opening their doors to foreign participation. Swap markets are being phased out and central government authorities are discovering new ways to utilize domestic capital to enhance infrastructure development and promote economic growth. Despite political rhetoric laced with Maoist-sounding ideology, Jiang Zemin and others are putting economic growth first.

Furthermore, the current leadership is encouraging more international involvement, hoping to expand China's global role. The more China is allowed to participate in international forums, the less threatening it becomes. WTO membership would hold China to higher standards and further support internal market liberalization. China's impressive economic emergence is attributed in part to a long period of political stability. Should China's economy cease to expand, a window of opportunity will be opened for the conservatives to regain defining influence in policymaking. A major turn toward nationalist policies would damage relations with Washington, harm U.S. multinationals investing in China, and hinder Asia's phenomenal growth potential.

## REASON FOR HOPE

Recently, there have been positive signs in Washington of improved China policy. U.S. National Security Advisor Anthony Lake's visit to Beijing in June laid the foundation for a possible summit meeting between President Clinton and President Jiang. Security talks seem to be back on track, and Washington seems to be taking a less confrontational approach toward China. Clinton's support of MFN renewal was encouraging, as was Assistant Secretary of East Asian and Pacific Affairs Winston Lord's recent trip to meet with the Chinese.

The U.S. should encourage increased Chinese involvement in international organizations such as the WTO. As a member, China would have to adhere to international standards and would be able to establish itself as a respectable member of the international community. Ending yearly MFN status reviews also would go a long way toward opening China's markets, improving relations and showing China that the U.S. is sincere in contributing toward China's economic growth and development.



## II. DOMESTIC ECONOMIC MODERNIZATION AND REFORM

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### CHINA'S TRANSITION TO A MARKET ECONOMY: BACK TO THE FUTURE, MIRED IN THE PRESENT, OR THROUGH THE LOOKING GLASS TO THE MARKET ECONOMY?

By Robert F. Dernberger \*

#### CONTENTS

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	Page
Summary .....	57
The Transition .....	58
The Transition or Reactive Policy Responses? .....	60
China's Reactive Policy Regime .....	61
Agriculture .....	61
The Foreign Sector .....	62
Industry .....	63
Stabilization .....	65
The Present Situation .....	67
The Future .....	68

#### SUMMARY

A fair number of recent studies cite the "path dependent" nature of China's economic reforms. This only emphasizes the critical contribution of the initial conditions and causes of the reform policies, which differ significantly from those in Eastern Europe and the former Soviet Union. Yet, the appeal of a uniform model or theory to both academics and the missionaries of economic reform has led to what I believe is an emphasis on such questions as gradual vs. great leaps and the necessary and predetermined sequence of reforms that is neither appropriate nor useful in understanding the changes being made to the economic system in China.

A simple and brief review of the initial conditions and timing of the economic policies in China over the past two decades clearly indicates that the process of economic policy making in China should and has differed from The Transition model, i.e., includes different elements, introduced in a different sequence, and with different results. In fact, rather than try to understand these economic policies

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as a single piece, it is more useful to understand them for what they were: a series of policies introduced to cope with specific economic problems as those problems emerged and became serious. This policy process has been guided by the motto, "if it ain't broke, don't fix it." It would be a distortion of reality to argue these policies were gradual in nature and were part of a single economic reform package, i.e., to refer to them as part of an economic reform program.

The Chinese have not been very forthcoming as to the specific structure of the new economic system they hope to achieve as a result of this economic policy process. Some Western observers feel free to specify that future system either on the basis of normative assumptions of what that system ought to be, or logical arguments from the literature about optimal systems to assert what it must be, or mere wishful thinking about what they hope it will be. While we judge this policy process to have been rather successful in the past, the Chinese still face some severe economic problems in creating a new economic system for the future. Based on our analysis of the past, however, we argue the Chinese will continue to implement their policies already in place and be relatively successful in creating an economic system that is *marketized*, but not *privatized*, with a fiscal and monetary system that will provide sufficient *stabilization* for maintaining an impressive record of economic growth.

The above sketches out arguments which would require a monograph to sustain. In the space allowed me, my purpose is to suggest a different framework for thinking about these questions so as to suggest my own tentative answers to many of them.

### THE TRANSITION

Economic and political systems are rather enduring features of a society's culture and history. The present generation, therefore, is witness to a truly unique development; systemic changes in not only one, but several of the major economies of the world. Economists, of course, have devoted considerable attention to the developments in these countries. Trained to focus their efforts in developing general principals, universal theories and models, a whole new field has been created within economics to study these developments: Transition Economics. The body of literature produced in this new field has already become quite extensive. That literature tells a widely accepted and utilized story of The Transition. A basic assumption is that these societies have rejected Communism and the Soviet-type economic system and are in the process of adopting a free-market, capitalist system.<sup>1</sup> The focus of The Transition literature is on determining the optimum means of getting from the former economic system to the latter.

Many interesting and suggestive economic models and theories have been produced by the growing body of The Transition literature. Yet, despite the valuable insights they provide, the empiri-

<sup>1</sup>To be fair, some of this literature does not take the objective of a transition to a free-market, capitalist economic system (and democracy) as a necessary prior for The Transition, but argues a free-market, capitalist system (and democracy) are logical and inevitable end results of The Transition, once the initial steps are taken to modify the Soviet-type economic system in favor of the use of markets. The irony of this must be noted: the failure of Marx's hypothesis of the capitalist stage of history inevitably leading to Socialism and then Communism is being replaced by an argument that Communism inevitably leads to Capitalism.

cal evidence being produced by those economies experiencing The Transition would seem to contradict many of the arguments and policy recommendations of The Transition economists.<sup>2</sup> Most of The Transition literature is focused on an economy's economic system, but an economy's performance is determined by much more than an economy's economic system alone. The economy's environment (i.e., history, culture, resource endowment) and economic policy process (i.e., the interaction of the political process and economic activity) are obviously of great importance and readily suggest important constraints upon the process of systemic change analyzed in The Transition literature.

There are other weakness of The Transition literature as well. For example, the economic systems of The Transition literature usually are ideal types, while economic systems in the real world offer a rather wide variety of adaptations of those ideal types.<sup>3</sup> In addition, the extent to which and the speed with which The Transition economies are abandoning various elements of their Soviet-type economy and adopting elements of a free-market, capitalist economic system exhibit considerable differences.<sup>4</sup> Forced to acknowledge the radically different results being observed in The Transition economies, the different initial conditions with which they entered The Transition process has been suggested as the principle cause of the different results and an ever growing number of studies now cite the "path dependent" nature of The Transition.

Only a brief list of the significant differences between China and the formerly Communist economies of Eastern Europe and the Soviet Union is required to explain why China's resulting path in The Transition would also be different. China's economic reforms were touched off by a dramatic leadership change, but that change was carried out without rejecting either the Party or its rule by means of a Leninist system. The economic policies the new leadership introduced were not adopted in response to an industrial recession, there was no collapse in consumer demand, nor a monetary and/or budget crises. All former Soviet-type economies faced the need to restructure their economies, but the Chinese—unlike the others—enjoyed a significant labor surplus while doing so. The Chinese had decided to decentralize their version of the Soviet-type economy almost as soon as they adopted it in the mid-1950's and, therefore, local cadres had considerable experience in effectively managing economic enterprises and activities before the 1990's. Finally, there were large numbers of Chinese living outside of China in neighboring capitalist economies with considerable management and marketing experience, with access to large sums of capital, and they were ready and willing to help develop China's economy when given the chance. Thus, the policy process in China obviously would be quite different than that experienced in The Transition of the

<sup>2</sup>This is the central theme of a critical review of The Transition literature. See Peter Murell, "The Transition According To Cambridge, Mass.," *Journal of Economic Literature*, Vol. XXXIII (March, 1995), pp. 164-178.

<sup>3</sup>In the specific case of the Chinese economy, in the period 1955-1975, its economic system differed in many significant ways from its ideal type: the Soviet-type economy.

<sup>4</sup>China, of course, has showed great reluctance to abandon state enterprises and the state's control over the economy and has moved very slowly in adopting various elements of a market, capitalist economy, carrying out various policy experiments along the way.

former Communist economies in Eastern Europe and the former Soviet Union.

#### THE TRANSITION OR REACTIVE POLICY RESPONSES?

Our purpose here, however, is not just to argue that the pattern of economic policies adopted over the past two decades in China has differed significantly from those pursued in the rest of the former Communist world. Rather, I believe the acceptance of the terminology, models, and arguments of The Transition literature distorts, and may even prevent, our understanding of both the individual economic policies and the economic policy process which have produced those policies in China over the past two decades. Furthermore, I believe we gain a better understanding and appreciation of what has happened, is happening, and is likely to happen in China if we accept and analyze the Chinese economic policies over the past two decades for what they were trying to do in reality, rather than shoehorn them into a theoretical framework created by those studying The Transition in Eastern Europe and the former Soviet Union.<sup>5</sup>

For example, when we begin with The Transition literature as our framework for analyzing policy developments in China over the past two decades, China's experience is cited as an example of "gradual reform," in contrast to a "big leap reform." It is true that the changes in China's economic system were gradual, to say the least, but as I hope to show in this paper, changes in the economic system were not the focus of the policy-makers. On the other hand, changes in particular institutions, sectors, and activities—which were the focus of the policy-makers—brought about some of the most dramatic and sudden changes to China's economy and its performance that the world has ever seen. Thus, forcing China into the category of a "gradual" reform process prevents our appreciation of the extent to which these changes indeed were both dramatic and sudden transformation.

Economists now recognize the hypothesis and arguments in favor of a "big leap" transition are only possible in theory and not in reality; even if a detailed plan for changing a society's economic system were to be adopted, the actual implementation of that plan would require a rather prolonged period if it is to be successful. Once it was accepted that The Transition must be gradual, attention was turned to an analysis and determination of the necessary and sufficient "sequence" of steps to be taken in The Transition, as well as the duration of each step. In this case, inasmuch as the economic policies adopted in China over the past two decades were formulated and adopted to solve various economic crises as they occurred, they did not follow the sequence spelled out in The Transition literature. In fact, the sequence of the Chinese economic policies ran almost in the opposite direction to those dictated for a suc-

<sup>5</sup>I hope my readers do not jump to the conclusion that my arguments here are just another example of the anti-theory or anti-model building of an applied economist. I believe the work in the main stream of The Transition literature is both necessary and useful in the study and analysis of developments in Eastern Europe and the former Soviet Union. My point is that a completely different approach may help us better understand what is happening in China and I hope to show why that is true in this paper.

cessful Transition and one of the steps said to be necessary is even absent in China: privatization.

In this paper, I begin with the basic assumption that China's economic policies over the past two decades can be understood as the result of a political leadership trying to cope with the major economic problems it faces, when and as those problems occur and become serious enough to demand their attention. There are three elements in leading to a new economic policy regime. 1) The more unified the leadership and the greater its control over the economy, the more rapidly it will adopt and implement new policy solutions for the problems it faces. 2) The more serious the economic problems, the more radical will be the policy solutions proposed. And 3) it is a "window of opportunity" which enables the introduction of a new policy regime.

Mao's death in 1976 and the removal of the "Gang of Four" shortly thereafter and the emergence of Deng Xiaoping as the head of a new leadership group over Hua Guofeng and the remnants of Maoist loyalists created the "windows of opportunity" for a new economic policy regime. Deng soon became a rather dominant figure among his peers in the leadership and that group included many different points of view. Thus, a consensus style of economic policy innovation was required, precluding any sweeping package of complete economic reform that aimed at creating a complete new economic system. But what were the pressing economic problems that faced the Chinese leaders at the 3rd Plenum of the 11th Central Committee at the end of 1978, a meeting that is recognized as the starting point of the succession of new economic policies over the past two decades which have come to be labeled as "China's Economic Reform Program"?

## CHINA'S REACTIVE POLICY REGIME<sup>6</sup>

### AGRICULTURE

The most serious economic problem confronting China's leaders at the end of 1978 was agriculture. Successive years of drought in the early 1970s, very unpopular and counter productive collective institutions of the Soviet-type economic model, and rapidly rising prices of inputs and low and stable prices paid for outputs meant that peasant's income and standard of living was stagnant or declining at the end of the 1970's. The decision taken at the 3rd Plenum to cope with this problem was to increase the prices paid to the peasants for their output; a significant increase in the terms of trade for the peasants, but hardly a program of economic reform. Much more significant was the rerelease of a slightly modified document on agricultural policy that the "capitalist readers" among China's leaders had drawn up in the early 1960's.<sup>7</sup> Some of those capitalist readers were rehabilitated and back in power in the late 1970's and the rerelease of this document sent a signal throughout China—the implicit approval by the leadership for the return of de-

<sup>6</sup>Obviously our allocated space precludes any complete review of the many different economic policies the Chinese have introduced or experimented with over the past two decades. Rather, we take specific sectors of the economy as our building blocs and discuss the major changes that have occurred in those sectors as a result of economic policy changes over the past two decades to illustrate and support our main theme in the paper.

<sup>7</sup>This document was widely known as "The 60 Articles."

centralized decision making, the recreation of markets, and a reliance on material incentives in the countryside. As a result, the "contract responsibility system" created a form of tenant-household farming with the state retaining ownership of the land, with production and the allocation of output guided by market prices, and the peasant household having property rights in their "surplus" output. This new system of household farming replaced the old system of collective farming in the largest agricultural country in the world within a period of five years.<sup>8</sup> Is this an example of a gradual reform?

Moreover, far from being an economic reform program or plan, predetermined and imposed from above, these dramatic changes in Chinese agriculture consisted largely of the Party and government reluctantly removing its administrative controls over the units of production and allowing local cadres and the households to restore the more natural and popular institutions and activities of the early 1950's. In response to the new material incentives created by market forces in the countryside, there was a rapid and crucial upward shift in China's agricultural output. This, in turn led to an increase in rural incomes, improvements in the standard of living, and an increase in the effective demand for the industrial production of consumer goods. In short, the initial economic policies reacting to the agricultural problem the Chinese leaders faced at the end of the 1970's, were so successful they created economic benefits for most of the population and popular support for the new leadership and its economic policies well into the future.

#### THE FOREIGN SECTOR

China's economic isolation from the rest of the world was another festering problem for China's leaders at the end of the 1970's. Before then, the Maoist policy of self dependence was placing serious constraints on China's growth, while the rest of the world simultaneously was enjoying an ever-accelerating process of technological innovation; China was being left behind. The debate between those emphasizing self-dependency and those who favored opening China to greater interdependency with the rest of the world has been an issue in China for more than a century and was one of the defining divisions between the two factions struggling for power during the pre-1979 period. Thus, when they returned to power, the post-Mao leadership began the process of opening China as part of their sweeping rejection of the Maoist economic principles.<sup>9</sup>

The monopoly of the state foreign trading companies was broken and decision-making decentralized so that production units at the local level and their representatives were able to negotiate directly with foreign suppliers and buyers. A foreign exchange market was created and the exchange rate adjusted so that domestic prices became more related to foreign prices. Foreign loans were obtained and direct foreign investment in China was permitted. Special eco-

<sup>8</sup> China's rural markets, of course, are not completely free. Nonetheless, the *basic* mechanism for determining what to produce, how to produce it, and for whom (the basic questions of any economic system) in China's agricultural sector was changed from a collective under the plan to a household under a marketized sector between 1979 and 1984.

<sup>9</sup> In other words, although the opening of China was definitely an explicit policy decision of the post-Mao leadership, it was not launched by the adoption of a specific policy on how to do this.

conomic zones and technology and industrial parks for foreign investment were created where special benefits were granted foreign investors. Unlike the case of the changes in agriculture, these individual moves involved in the opening of China occupied the leadership's efforts during most of the 1980's. As the state's direct control over the foreign sector was being steadily eroded by these moves, the efforts to create the required legal and regulatory framework and indirect controls to regulate the foreign trade sector had lagged well behind the opening initiatives<sup>10</sup> Thus, the state must still interfere in the foreign trade sector from time to time when the decentralized decisions of local units and a foreigner threaten the balance of payments and/or China's foreign exchange reserves, generate inflationary pressures, or undermine desired changes in the structure of production. Moreover, the individual steps taken to address these continuing problems of the opening process are taken more in an ad hoc manner to address the current situation, not according to a plan of economic reform that specifies a particular organization of this sector in the long-run.

Despite the necessary time lags involved in creating the institutional framework and regulations for the foreign trade sector in China's new open economy, it is very hard to argue that the opening of China's economy has been an example of gradualism. While the tail of the foreign sector does not wag the dog of the domestic economy, as some would have us believe, China is now the largest developing-country, participant in the world economy and has a foreign trade dependency ratio greater than many developed countries.<sup>11</sup> Between 1979 and 1995, the domestic economy grew at the remarkable rate of almost 10 percent a year. Yet, China's foreign trade sector grew even faster, *almost twice as fast*, raising China's foreign trade dependency ratio to more than 20 percent. Despite the very rapid growth of domestic investment, foreign borrowing and investment now account for almost ten percent of domestic investment in fixed assets. I find it most difficult to refer to this change as a gradual transition.

#### INDUSTRY

In a search for an economic reform plan or program, with its focus on marketization, privatization, and stabilization rather than reactive economic policy responses to current economic problems, the closest would be the "Decision on Reform of The Economic System" (The Decision), adopted by the 3rd Plenum of the 12th Central Committee in October, 1984. China's leaders had debated over the proper management structure, incentive system, and mechanism for the state's administrative control over the state enterprises ever since the early 1950's. Following the 3rd Plenum of the 11th Central Committee in 1978, the rejection of the Maoist economic principles and the recreation of material incentives, including the state enterprises sharing in the profits they made, as

<sup>10</sup> We sometimes fail to appreciate the difficulty China's leaders face in their attempts to develop the new system of legal and regulatory framework for their foreign sector in that they are starting from scratch. Then too, it is not just a matter of drafting and adopting this new framework of regulations and controls; they must be implemented and enforced.

<sup>11</sup> At the end of the 1960's, China was one of the most autarkic economies in the world, with a foreign trade dependency ratio less than 5 percent and with no foreign borrowing or investment.

well as the attempts to have the political cadre "stand aside" and allow the managers to manage did lead to increases in the level of production and productivity. In addition, the structure of production began to be determined more by the structure of demand. Encouraged by these developments, the "reform wing" of the leadership was able to obtain the adoption of "The Decision" in the fall of 1984. Nonetheless, because there was no crisis, compared to its earlier reactive economic policies, the leadership was much less united in its agreement as to what should be done, how fast it should be done, and how far to go in doing it. As a result, "The Decision" was an obvious compromise: short on particulars, broad in scope, with an indefinite timetable, and with something for everyone.<sup>12</sup>

Even though unclear at the time, assuming The Transition involves policies designed to achieve the marketization, privatization, and stabilization of the formerly Soviet-type economy, hindsight makes it clear that "The Decision" was focused on the marketization of China's economy. The scope of the planners' direct control over the economy was to be reduced, while the scope of their indirect control, through guidance planning, was to be increased, and the spread of markets and market transactions was to be encouraged. To facilitate this spread, the scope of prices set by the state was to be reduced, the scope of prices negotiated within limits between buyers and sellers among the state enterprises was to be increased, while the use of market prices was encouraged.

This was a rather unique and successful "transition process" for achieving the marketization of the Chinese economy. As a result of "The Decisions," there has been a steady erosion of planning and administered prices in favor of markets and market prices to the point where the latter now dominate the Chinese economic system.<sup>13</sup> Privatization was not directly addressed in "The Decisions," but state enterprises were no longer to enjoy a monopoly. Local levels of the government and state agencies were encouraged to create their own enterprises outside the state planned and controlled sector, while cooperative and private enterprises were to be allowed. The problem of stabilization was not addressed at all in "The Decisions."

Privatization, of course, was now allowed and private enterprise did grow after "The Decisions," as have foreign and joint ventures. However, these three categories of ownership still accounted for less than 11% of industrial output in 1993. The sector that really took off after "The Decisions" was a sector that is somewhat unique to China: enterprises operated by or controlled by the local government.<sup>14</sup> The property rights of the participants in these enterprises

<sup>12</sup> I happened to be in China at the time "The Decision" was released and returned for another visit a few months later. The Chinese I met with, mid-level officials in the economic administration, had a hard time explaining the contents and terminology in "The Decisions."

<sup>13</sup> Nonetheless, it would be a mistake to call China's economy a *free-market* economy as many economic activities remain either dominated or constrained by administrative and/or political objectives. Furthermore, the Party and administrative cadre still exercise what they believe is their right to interfere in economic activity, often in a most ad hoc manner.

<sup>14</sup> At first, the output and employment in this sector was included in the ownership category but it was obvious they were not true collectives. Rather, they include a wide ranging mix of entrepreneurial and financial input of local government, community, cadre, and individuals. Inasmuch as a significant share of these enterprises is found at the local level, i.e., the township and the village, the Chinese created a new sub-category of collective enterprises in their statis-



are not well defined, to say the least, but for enterprises with poorly defined property rights, they have generated a remarkable rate of growth in output, employment, and income. Thus, although we can still argue over how to identify the ownership of these enterprises, they are not privately owned and do not constitute a form of "privatization" in China's economy. In fact, they may even suggest an alternative to private ownership for those economies undergoing The Transition.

A second reason why "privatization" of the China's economy did not occur after "The Decisions" was that China's leaders are unwilling to privatize the state enterprise sector.<sup>15</sup> "The Decision" did help to improve the operations of the state enterprises, however, as it eventually had the effect of forcing China's state enterprises onto the market. Like it or not, over time, China's state enterprises were forced to buy more of their inputs on the market and to sell more of their output on the market, and the markets were becoming more and more competitive. Not all of China's state enterprises failed to meet the challenge; output and productivity did increase in the state enterprise sector. As for those enterprises that have failed to become more efficient and profitable, China's leaders have been reluctant to close them down. Not only are the state enterprises one of the last remaining symbols for their claiming to be a socialist-market economy, but there are two other significant reasons why China's leaders have failed to take effective action to eliminate the "white elephants" in the state enterprise sector. On the one hand, while the existing situation does not represent a real crisis, closing a significant portion of the state enterprises would create one that would threaten their political power: the widespread unemployment of the urban labor force. On the other hand, the reason why the inefficiencies and losses of the state enterprises did not create a crisis was because this problem had been shifted to other sector of the economy: the budget and the banking sector.

#### STABILIZATION

In the traditional Soviet-type economy, the budget was the means by which savings were mobilized (through the profits of state enterprises and turnover taxes) and placed in the hands of the central planners for allocation to investment according to the planners' priorities. In the process of forcing the state enterprises onto the market, they were allowed to retain a large portion of their profits in return for being responsible for their own expenses, including the wages of their workers. As for investment funds, formerly provided by unilateral grants in the state budget, state enterprise investments were now to be financed by bank loans. Various schemes for taxing the profits of state enterprises were introduced, but the profits of the state enterprises were steadily declining. Thus, with the dynamic growth of the TVE sector, local units of government saw their revenues, both within and outside the

tical reports: the Township and Village enterprises. For want of a better term, the Western literature now refers to them as the TVEs.

<sup>15</sup> My critics, of course, will quickly cite the growth of the capitalization of the state enterprises by means of stock sold on stock markets. However, this is happening at a regulated and slow pace and does not represent a real change in control of the enterprise. Selling stock is more for the purpose of raising money for the enterprise than for changing its management system and those who formerly controlled the enterprise end up with the majority share of the stock.

budget, growing rapidly, but the revenues to the state were stagnating and steadily declining as a share of GDP. In other words, from the standpoint of China's leaders, a real crisis in the budget process was emerging by the 1990's.

Again, when faced with an economic crisis, the Chinese leaders reacted with a new economic policy focused on a solution to that particular problem. Thus, on January 1, 1994, a value-added tax was introduced, with a fixed share of that tax to go to the state. A new profit tax was to be applied to all enterprises, regardless of ownership. Other taxes were designated as either local, state, or shared taxes and rather than rely on local tax officials to collect all taxes, sending on to the state its share, a completely new and separate tax collection bureaucracy was created down to the local level to collect the taxes due to the state. On paper, this is an impressive and rational response to their budget crisis and, while it is too early to pass final judgment, should resolve the economic crisis in China's budget process.

As for the problem of the inefficiencies and losses of the state enterprises, although they have been forced onto the market, it has been left up to the banking system to force them to live up to the *discipline* of the market. However, as representatives of the interests of the state enterprises and their workers, local cadre and state officials pressured the banks to keep giving these enterprises "policy loans," rather than forcing them to close and throw their workers out on the street. With its weak political clout, the Chinese banking system was being called upon to implement the "hard budget constraint" on the state enterprise sector and was unable or unwilling to do so.

There was little reason for the banking system to do so. When they exceeded their credit quotas and expanded the money supply well beyond the limits set by the central authorities, they would be given an additional allotment of funds to justify the "policy loans" they had already extended. And, when they did restrict credit, they would be forced to relax that pressure when unemployment eventually increased. Furthermore, during periods of tight credit, state enterprises would remain open by simply not paying their bills, creating a problem of "triangular debt" whereby even otherwise successful enterprises accumulated accounts receivable which were often uncollectable. By the 1990's, this problem was becoming a crisis.

Again, acting in the face of a growing economic crisis, the Chinese leadership was forced to develop policies to deal with this particular problem. The People's Bank of China (PBC) was made a central bank, i.e., a banker's bank. The PBC was set free of the Ministry of Finance and was no longer responsible for financing the budget deficit, which was to be financed by bond sales on the growing capital market. The PBC was to regulate the banking sector, set required reserve ratios, discount rates, and engage in open market operations. Other banks were to become "commercial" banks, taking deposits and making loans according to market criteria and cost-benefit analyses.<sup>16</sup>

<sup>16</sup>The need for investment in long-term projects with low rates of return was recognized and three specialized banks were created for the purpose of agricultural development loans, for loans to develop exports, and loans for infrastructure.

## THE PRESENT SITUATION

On paper, this reactive policy also represents an appropriate and rational response to the economic crisis faced; if carried out, it would create a hard budget constraint and make state enterprises live up to the discipline of a market economy. China is still a Communist country, however, and is run by a Communist Party according to Leninist principles; it is a political economy. China's leaders are well aware that a market economy, with state enterprises subject to hard budget constraints and the discipline of the market, would eliminate one of their last direct controls over the distribution of resources and incomes in the economy and would alienate the working class as well. Thus, the implementation of these new policies in the banking sector have fallen well short of their objective.

According to The Transition literature on proper sequencing, stabilization policies or the fiscal and monetary reforms to control inflation and the effects of inflation as marketization takes place should begin the process of economic reform. Yet, China's leaders did not get around to formulating their reactive policies in these sectors until the 1990's, over a decade after the process of marketization had begun. Initial conditions, of course, were part of the reason; the Chinese did not begin the process of marketization with a large overhang, i.e., large monetary balances held by the public for which there were no goods on the market to buy with these balances. Inasmuch as subsidies (budget deficits) and loans (bank credits) were used to keep the inefficient and unprofitable state enterprises in operation and there were no moves to close and privatize them, however, the money supply increased much faster than the output of goods and services over the past two decades. Nonetheless, outside of a few brief periods of price rises in the 20 percent range, it was not until the 1990's that the problem of inflationary pressures required the reactive policies to achieve the objectives of stabilization.

Why were the Chinese so fortunate to be able to ignore these problems for almost two decades? The only answer I can come up with is dumb luck. As I have argued above, the essential strategy that has guided China's leaders in adopting reactive policies in the past two decades has been, "if it ain't broke, don't fix it" and if it is broke, fix-it with a "Chinese solution." Thus, they did not need to adopt stabilization policies for almost two decades due to a very fortunate reaction by the population to their marketization of the economy.<sup>17</sup> In the old Soviet-type economy, the inefficient and unprofitable state enterprises were kept going by the "forced" savings of the population. The people had little to say about the level of savings and the allocation of those savings into investment in heavy industry. In China, after the decentralization and marketization in the 1980's, incomes and income distribution were being determined by market forces and a larger share of national income was going to individuals and local units, who had control

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<sup>17</sup> Inasmuch as China was a developing economy with a significant share of activities not covered by market transactions, a portion of the increase in the money supply was needed to accommodate the increased share of total economic activity involved in market transactions as the economy grew rapidly over the past two decades.

over how those incomes were to be used. Fortunately for China's leaders, those individuals and units decided to achieve a very high rate of "voluntary" savings, which they placed in the banking system, which could use this rapid growth in deposits to extend credit to the inefficient and unprofitable state enterprises without resulting in rampant inflation.<sup>18</sup>

Despite their relatively successful two decades of reactive policy making, China's leaders now find themselves between a rock and a hard place. The portion of the money supply held outside their control is quite large and they cannot rely continuously on these funds for keeping their inefficient and unprofitable state enterprises open by means of loans from the banking system. In other words, as long as they desire to avoid privatization and maintain a "mixed" system of ownership types, they must proceed much faster with the process of closing the white elephants in the state sector. Obviously this will involve higher levels of unemployment. On the other hand, they must develop the stock market faster so that the public will be willing to invest their large pool of saved funds in those state enterprises that are efficient and profitable. This is important because their desire to join the WTO will mean they must create a more open market for foreign exchange, which would offer those holding domestic savings an opportunity to engage in a capital flight. Then there is always the immediate threat of inflation due to the public deciding to invest their savings in goods on the market rather than keeping them in the banking system. Quite simply, their successful run of reactive economic policies over the past two decades have provided China's leaders with enough breathing space to avoid dealing with these problems, but they have been building up and are becoming more serious as time goes on.

### THE FUTURE

A major assumption of my analysis of the past record of the reactive economic policies adopted by China's leaders was that there was no specific economic system they were seeking. Rather than engage in policy formulation for the purpose of scrapping their existing economic system to seek a specific new economic system (The Transition), with the exception of the economic reform policy of October 1984, they were formulating and adopting economic policies to cope with existing economic problems as those problems occurred. On the basis of my analysis of their past record, however, I believe I can argue where this reactive economic policy regime is leading. They have accomplished much in the marketization of the Chinese economy and the prospects for their being able to successfully complete that process are quite good. Not engaged in privatization, they have allowed the creation of a mixed economy. Inasmuch as they intend to retain a significant state enterprise sector, the economic system should remain mixed in ownership types. As for stabilization reforms, they have already adopted and are imple-

<sup>18</sup> There are two significant reasons why the public would "voluntarily" deposit these savings in the banks: 1) the state has tried to increase the interest rate paid on these deposits to achieve this favorable result and 2) there are few alternative uses of these saved funds.

menting their fiscal system of the future and have designed and begun to implement their new banking and monetary system.

Their efforts to achieve such a system, of course, will depend on their ability to resolve the problem of the inefficient and unprofitable state enterprises, essentially by enforcing the hard budget constraint. Again, based on my analysis of their behavior in the past, I believe China's leaders will continue with partial experiments and piecemeal changes, rather than adopt sweeping across-the-board and radical changes. I do not believe this means a process of muddling through or their getting stuck in the present. Rather, I am impressed with how this same process of practical experiments and piecemeal changes in reactive policy-making has resulted in significant and dramatic changes for the better in China's economic system over the past two decades.<sup>19</sup> China's leaders recognize the economic crises they face and have implemented the necessary institutional changes to cope with them. Now all they need is the political will to implement this ready made and available solution, but the time is drawing nearer when these problems they now face will become real crises.

There are good reasons for both pessimism and optimism in regard to the future. Unlike the reactive policies in the past, where the benefits were realized quickly and shared by a large portion of the population, the policies waiting to be implemented in the near future will be much more painful and their benefits less immediately apparent. Furthermore, without Deng Xiaoping to serve as the ultimate authority and leader, consensus among the leadership will be harder to achieve in the future and the ranks of his would-be successors do not include any of Deng's stature. There are, however, many positive considerations to bear in mind as well. The impressive record of the past two decades; the policies needed are already in place, they just have to be implemented; and from their record in the past, we know they do not have to develop formal property rights as a necessary condition for rapid growth. The growing interdependence of the world economy offers a powerful incentive for their moving forward, while the death of the old ideology removes a significant constraint on their doing so. We obviously cannot predict the future with any confidence. Nonetheless, during the 1970's the future of the Chinese economy was in doubt; today it is among the most dynamic economies in the world and some are predicting it will emerge as the major economic power in the world sometime early in the next century. Time will tell, but I believe time is on their side.

<sup>19</sup>This strategy is captured by a phrase used to describe the Chinese development strategy of rural, small-scale enterprises using out-dated technology to achieve economic development during the 60's and 70's; "the ant gnawing on the bone." It takes time, but the bone disappears.

# CHINESE ECONOMIC GROWTH: EXPLANATIONS AND THE TASKS AHEAD

By Jeffrey D. Sachs and Wing Thye Woo\*

## CONTENTS

	Page
Summary .....	70
Chinese Economic Policy .....	71
Dual-track Production and Pricing .....	71
Dual-track Ownership Structure .....	72
Dual-track Regional Development .....	72
The Political Necessity for a Gradual Reform Strategy .....	73
Chinese Economic Growth .....	74
Explaining the Growth .....	78
Future Challenges .....	81
Ownership Transformation of the TVEs .....	81
Restructuring the SOE Sector .....	82
Modernization of the Fiscal System .....	83
Development of the Non-state Financial Sector .....	83
Elimination of Policies that Aggravate Regional Inequalities .....	84
Deepening of Market-supporting Institutions .....	84
References .....	84

## TABLES

Table 1. Share of Contribution to GDP Growth Rate by Sector, and by Ownership in the Industrial Sector .....	74
Table 2. GDP Growth Rates With Different Deflations of Industrial Output ....	75
Table 3. Summary of Official Growth Rates .....	78

## SUMMARY

China's market-oriented reforms have produced high economic growth and dramatic structural transformation. The average annual GDP growth rate for 1979-93 was 9.3 percent. In the same period, the proportion of the labor force engaged in agriculture dropped from 71 percent to 56 percent, and trade (exports plus imports) rose from 10 percent of GNP to 36 percent. This rapid growth and transformation of the economy has resulted in what must be one of the most successful poverty alleviation programs in the twentieth century. The incidence of absolute poverty declined dramatically in the rural area, from 33 percent in 1978 to 12 percent in 1990.<sup>1</sup>

China's extraordinary growth performance should not, however, take attention away from many deep problems that China will face

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<sup>1</sup>Table 2.1 in World Bank (1992). Poverty is largely a rural phenomenon. Absolute poverty in the urban area was 2 percent in 1981 and 0.4 percent in 1990.

in the coming years. While China's state sector is too small to drag down the non-state sector, it still imposes large financial and allocational costs on the economy. China's underdeveloped legal system will be more of a drag on the economy as the complexity of economic life increases, unless legal reform can keep pace with economic growth. Property forms that have worked in the past 15 years, such as the township-and-village enterprises (TVEs), are likely to be less effective in the future, especially as village-based life is supplanted by a highly mobile, non-agricultural population. Political legitimacy will also be under serious stress. Growing income inequalities across regions will raise demands for compensatory policies from the center, which will prove hard to satisfy. At the same time, continuing corruption and misuse of state assets will further undermine the public support for the existing political institutions. These political problems will play out against a backdrop of continuing serious pressures on the state budget, arising from low tax revenues and losses of the state-owned enterprises.

These issues are taken up in the following sections. The next section outlines the gradual (dual-track) reform program that was implemented after 1978. We attribute the gradual reform strategy to the logic of political compromise, and the complexity of political and economic change in a country of more than one billion people, rather than to the logic of experimentation as sometimes asserted in the official rhetoric. The subsequent two sections identify the main sources of growth. We put the basis of China's impressive economic performance in the context of a liberalizing, surplus-labor economy. The last section discusses the major remaining tasks for economic reform in China.

### CHINESE ECONOMIC POLICY

The reform strategy that has been implemented is best described as the dual-track approach: the co-existence of a market track and a plan track. The dual-track approach pervades almost every aspect of policy-making: sectoral reform, price deregulation, enterprise restructuring, regional development, trade promotion, foreign exchange management, central-local fiscal arrangements and domestic currency issuance. We outline below three important areas where dual-track reform has been implemented.

#### DUAL-TRACK PRODUCTION AND PRICING

The dual-track approach started at the end of 1978 with rapid and comprehensive liberalization of the agricultural sector. The agriculture communes were disbanded by distributing the land to the peasants, and granting 15-year leases on the land, with the leases being freely tradable. State procurement prices for agricultural products were raised, and free markets for agricultural products were allowed. Some production incentives (notably, profit-retention and bonus) were introduced for some classes of secondary and tertiary activities during the first phase of reform.

The impressive growth of the agricultural sector upon marketization led to broader liberalization of the secondary and tertiary sectors in mid-1984. The state-owned enterprises (SOEs), located mainly in urban areas, were liberalized by devolving to

them some decision-making power from the supervising industrial bureaus. The state procurement quotas for consumer goods were reduced to be much lower than for producer goods.

The typical process of dual-price transition is as follows: (1) opening the free market while keeping state supply unchanged at the (lower) plan price; and (2) adjusting the plan price incrementally over time to approach the market price. The supply offered at the plan prices is normally fixed by quota, if not reduced, over time. Generally, no "shock" is observed when convergence of the two prices occurs.

Farmers now enjoy a large range of production freedom, only 5 percent of their production in 1993 was set by the state plan. The proportion of planned production of total industrial output value has been reduced from over 90% in 1978 to 5% in 1993.

#### DUAL-TRACK OWNERSHIP STRUCTURE

The most important dual-track component has been the reform of the ownership structure. The ownership reform started when the collective "commune" system was replaced by household farming. This made a major part of agriculture, which accounted for over 30 percent of GDP at that time, a *de facto* private economic activity.

Since 1984, there has been steady relaxation of the regulations governing the registration and supervision of private enterprises and community-owned enterprises (COEs), with the latter vastly more favored. Most COEs are situated in the rural areas, and these rural COEs are better known as township and village enterprises (TVEs).<sup>2</sup>

The explosive growth of the non-state sector has caused the share of industrial output produced by SOEs to fall from 78 percent in 1978 to 69 percent in 1984, and then to 34 percent in 1994.<sup>3</sup> It must be emphasized, however, that the SOE sector is not withering away, as suggested in claims of China having "grown out of the plan." The SOE sector has actually retained its relative standing in employment: 18 percent of the 1978 and 1993 labor force. There were 35 million more SOE workers in 1993 than in 1978.

#### DUAL-TRACK REGIONAL DEVELOPMENT

In 1980, four southern coastal cities (Shantou, Shenzhen, Xiamen and Zhuhai) were designated "Special Economic Zones" (SEZs). The SEZs were given autonomy to experiment with new institutions and reform, e.g. exemptions from many of the regulations that govern foreign investment. The resulting phenomenal growth of the SEZs spurred other regions to demand economic liberalization as well. An additional 20 cities were subsequently approved as "economic and technologic development districts" (ETDDs), which had some of the privileges of the SEZs. Hainan province became the fifth SEZ in 1988.

<sup>2</sup> Given that the unleashing of the rural TVEs brought great dynamism to the economy, it is hence not right to characterize the post-1984 reforms, as some have done, as reforms of the urban sector.

<sup>3</sup> Strictly speaking, data before 1984 are not comparable because prior to 1984 much of the industrial output by the communes were categorized as agricultural output.



## THE POLITICAL NECESSITY FOR A GRADUAL REFORM STRATEGY

Gradualism in the form of dual-track reform is as much the result of political deadlock or compromises within the Communist Party of China (CPC) between the hardliners and the reformers, and the general lack of consensus in the society at large, as the result of a particular theory of reform. The hardliners have enunciated the "bird cage economy" doctrine. In the conception of its originator, Chen Yun, the central plan is the cage and the bird is the economy. The premise is that without central planning, production would be in chaos, i.e. without the cage, the bird will fly away. The amount of market activities that is to be tolerated to keep the economy working is analogous to the amount that the cage needs to be swung to create the illusion of greater space required to keep the bird happy. The reformers, on the other hand, believe that only a market economy will promote long-term economic development.

In short, "muddling through" has not been a strategy, as has been claimed, so much as a result of the lack of political consensus. With these differences in views, it is not surprising that the CPC has continually altered its stated goals for economic management. Partly these changes reflect the results of experience under the reforms, and partly they reflect the shifting balance of power between competing factions, with competing conceptions of the economy. This point is most clearly seen in the evolution of CPC's desired economic mechanism, which went from "a planned economy based on the law of exchange value" before 1979, to a "planned economy that is supplemented by market regulations" in 1979-1984, to a "planned commodity economy" in the 1985-88 period, and (after two more changes) to "a socialist market economy with Chinese characteristics" in 1992.<sup>4</sup> The 1992 statement is very significant because the word "plan" was finally dropped from official rhetoric. The phrase "socialism with Chinese characteristics" is an implicit denial of the universality of socialism, and hence a rejection of the planned economies of the Soviet bloc where state ownership of production units is the norm.

The new official vision of China's economy in 1992 was no doubt partly shaped by the demise of the Communist Party of the Soviet Union in 1991. The shock of the collapse of the Soviet Union enabled the Chinese reformers to re-start the economic liberalization that had been suspended by the hardliners which dominated policy-making after the unfortunate 1989 Tiananmen shooting. The process of marketization and internationalization of the Chinese economy accelerated because the Soviet experience has convinced the leadership of the CPC that "centralized control, enforced egalitarianism, international isolation and ideological dogmatism" was suicidal; Garver (1993, p. 26). CPC has even gone as far as allowing some degree of privatization of SOEs. A notable recent example of significant privatization is Zhucheng in Shandong province, where many "state firms are being leased to entrepreneurs, turned into

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<sup>4</sup>The "law of exchange value" is from the Marxian (labor-based) theory of value, and "commodity economy" refers to an economy in the early stage of economic development where the emphasis should be on increasing production rather than on equality, so that concessions to market incentives may be necessary.

shareholding companies and, in the case of one marginal concern, even given away."<sup>5</sup>

### CHINESE ECONOMIC GROWTH

There are two phases to China's economic growth, and the turning point corresponds to, one, the policy regime change toward accelerating reforms in the nonagriculture sectors, and, two, the emergence of industry as the undisputed primary engine of growth. The sectoral contributions to GDP growth in the 1979-93 period, and in two subperiods, 1979-84 and 1985-93, are given below.

TABLE 1. Share of Contribution to GDP Growth Rate by Sector, and by Ownership in the Industrial Sector.

(Percentage points)

Sector Measure	Growth in 1979-93	Growth in 1979-84	Growth in 1985-93
Primary sector .....	16.5	31.8	11.6
Industrial SOEs .....	13.8	20.3	11.7
Industrial COEs .....	25.0	12.8	28.9
Individual-owned industrial enterprises.	5.9	0.2	7.7
Other ownership forms of industrial enterprises.	6.9	0.8	8.9
Construction sector .....	5.7	5.2	5.9
Tertiary sector .....	26.2	28.9	25.3
Total .....	100.0	100.0	100.0

Source: Authors' calculations. Calculated from series consistently rebased on 1993 prices.

Agriculture was a leading growth sector in the 1979-84 period. Agriculture's contribution to aggregate output expansion almost matched that of industry, 32 percentage points and 34 percentage points respectively.

In the 1985-93 subperiod, industry accounted for 57.5 percent of the increase in output; and the tertiary sector greatly outstripped the primary sector in terms of contribution, 25 percent versus 12 percent. The biggest contributor to GDP growth is the industrial COE sector, 29 percentage points. Industrial individual-owned enterprises accounted for 8 percentage points of the aggregate output growth.

The growth performance of the 1985-93 subperiod may be a better guide (than that of the entire period) to understanding the future growth prospects of China. This is because the agricultural sector is unlikely to become a major growth pole again as in the 1979-84 period.

We note that the official GDP growth rates are exaggerated, and possibly significantly so. The major causes of the exaggeration are:

- The pervasive reporting by COEs of nominal output value as real output value;

<sup>5</sup> "China City Turns into a Prototype for Privatization," *Wall Street Journal*, June 10, 1996.

- The incentive for officials at the local industrial bureaus to exaggerate output growth in order to enhance their career advancements;
- The procedure for reporting the base-year values of new product lines overstates them; and
- The inconsistent use of base-year prices.<sup>6</sup>

The by-product of all these tendencies to exaggerate the growth of real gross output is that the implicit deflators for the industrial output of SOEs and COEs consistently rose less than the factory-gate price index of industrial output, which is based on surveys of the prices (plan price and market price) received by a sample of industrial SOEs, mostly medium and large, for their products. In the 1990–93 period, the industrial COE output deflator rose 6 percent while the industrial SOE output deflator rose 35 percent, the factory-gate price index of industrial output rose 41 percent, and the consumer price index rose 26 percent.

If the factory-gate price index were correct, then the official growth rate of the industrial sector in 1993 overstated the actual growth rate by 10 percentage points. Because the industrial sector was the biggest contributor to GDP growth, the re-valuation of real industrial output by factory-gate prices would lower the 1993 official GDP growth rate from 13.4 percent to 8.9 percent. The sub-period GDP growth rates after the adjustments for base year changes and inadequate deflation of industrial output are:

TABLE 2. GDP Growth Rates With Different Deflations of Industrial Output.  
(Percent)

Measure	1979–1984	1985–1993
Official data .....	8.9	9.7
Consistent base year (1990 prices) .....	8.8	9.4
Consistent base year (1990 prices) with re-valuation of industrial output using factory-gate price index.	8.9	7.5

Source: Authors' calculations.

Given the many problems with the reliability of Chinese data, a better way to look at the preceding GDP growth rates (and the subsequent estimates of total factor productivity, TFP, growth rates) might be to regard them as the *upper and lower ends of the respective plausible ranges* within which the actual GDP (and TFP) growth rates lie. The upper end of the estimates on GDP growth is given by the official data and the lower end of the estimates is calculated by re-valuing industry output with the factory-gate price index.<sup>7</sup>

<sup>6</sup>For details, see Woo (1996).

<sup>7</sup>One important issue that needs to be clarified here is the possibility of a relationship between the estimated GDP level and the estimated GDP growth rate. As is well-known, the actual level of GDP may be understated by official data. The point that must be understood is that the understatement of the level *does not automatically mean* that the official growth rate is also understated. Unless it can be shown that the unmeasured part of GDP has been growing consistently faster than the measured part, one could not conclude that the official growth rate is an understatement. One could in fact argue the opposite: the existence of unmeasured economic activities means that an improving statistical reporting system would begin to count

Continued

It is important to stress, however, that the conventional view regarding the sources of growth in the 1985–93 period remains unchanged after re-valuing industrial output with factory-gate prices. The industrial sector remained the chief engine of growth, and the non-state sector was still in the driver seat.<sup>8</sup>

The leading role of the industry sector in GDP growth since 1978 (even more so since 1984) places China's economic growth within the context of traditional economic development. The unusually large contribution of the tertiary sector to China's growth places China's experience within the context of economic transition from traditional central planning. Central planning has traditionally regarded service activities as "unproductive,"<sup>9</sup> and hence has suppressed them. The rapid development of the service sector after 1978 reflects its relative underdevelopment because of its prior suppression.

Woo (1996) conducted a growth accounting exercise based on the three sectors—primary, secondary (industry and construction) and tertiary—as defined by Chinese statistics. Each sector is assumed to be characterized by a Cobb-Douglas production function, and the result is:

$$Y = \sum (\alpha_i x_i^{\beta_i} z_i^{1-\beta_i}) L^{\beta_i} K^{(1-\beta_i)},$$

where  $Y$  = GDP  
 $L$  = total labor force  
 $K$  = total capital stock  
 $x_i$  = sector  $i$ 's share of labor force  
 $z_i$  = sector  $i$ 's share of capital stock  
 sector 1 = primary sector (agriculture, forestry and fishing),  
 sector 2 = secondary sector (industry and construction)  
 sector 3 = tertiary sector.

GDP growth can be decomposed into portions that are due to capital accumulation, labor force growth, and total factor productivity (TFP) growth:

$$\begin{aligned} (dY/Y) = & (dL/L) \sum w_i \beta_i + (dK/K) \sum w_i (1-\beta_i) + \sum w_i \beta_i (dx_i/x_i) \\ & + \sum w_i (d\alpha_i/\alpha_i) + \sum w_i (1-\beta_i) (dz_i/z_i) \end{aligned}$$

where  $w_i$  = sector  $i$ 's share of GDP  
 TFP Growth =  $\sum w_i \beta_i (dx_i/x_i) + \sum w_i (d\alpha_i/\alpha_i)$   
 $+ \sum w_i (1-\beta_i) (dz_i/z_i)$

TFP growth is in turn partitioned into, what we call here, labor reallocation effect and net TFP growth:

them, treating the existing activities as new activities, and hence exaggerate the growth rate. So an understated level of GDP is likely to produce an overstated rate of GDP growth as data reporting improves over time.

<sup>8</sup> Industry accounted for 47 percent of the output expansion in 1985–93, the tertiary sector for 31 percent, and the primary sector for 14 percent.

<sup>9</sup> Most service activities are not counted in Net Material Product, the aggregate income measure used in socialist economies.

$$\text{labor reallocation effect} = \sum w_i \beta_i (dx_i/x_i)$$

$$\text{net TFP growth} = \sum w_i (d\alpha_i/\alpha_i) + \sum w_i (1-\beta_i) (dz_i/z_i)$$

Net TFP growth is the residual that contains technological improvements.

Labor reallocation is singled out for attention because most of the Chinese labor force is peasant farmers, a third of whom lived below the absolute poverty line in 1978. We have argued in Sachs and Woo (1994) that this "surplus labor" feature<sup>10</sup> has made China's transition from centrally planning fundamentally different from the transition of Central and Eastern Europe and the former Soviet Union (CEEFSU). Specifically, this means that in China the shift of labor away from agriculture toward industry and services increases aggregate output because the marginal product of labor (MPL) in the primary sector is lower than the respective MPLs in the secondary and service sectors.<sup>11</sup> In short, the marketization of a centrally-planned economy means normal economic development for China but structural adjustment for a CEEFSU country.

Given the unreliability of data on the sectoral distribution of capital stock, upon which these estimates of sectoral  $\beta$ 's were based, we drew upon the production function literature on China to generate a range of TFP growth rates by using different values for a common  $\beta$  across the three sectors; specifically,  $\beta = 0.4, 0.5,$  and  $0.6$ . The official data on sectoral distribution of labor should be used critically. The official estimate of labor in agriculture is based on registered residency status. It is an overstatement because of illegal rural migration, especially to coastal TVEs. The official estimate of the size of illegal migration is 80 million and the World Bank's highest estimate is 150 million. The official estimate (80 million) does not include the 20 million people who migrate within their home districts.<sup>12</sup> In our calculations, we assume illegal rural migration to be 100 million since 1984, with 60 percent of the migrants ending up in industrial jobs.<sup>13</sup>

To summarize the range of estimates, the official growth rates could be reasonably decomposed to a situation illustrated in Table 3.

We emphasize that the above estimates of TFP growth, labor allocation effect and net TFP growth should be considered together with the range of estimates associated them; see Woo (1996) for details.

There are two robust key findings from the detailed analysis. The first is that net TFP growth was lower in the 1985–93 subperiod than in the 1979–84 subperiod. This suggests that a part of the TFP growth unleashed by the 1978 reforms was a *one-time recovery in efficiency* from the decade-long Cultural Revolution and from the over-regulation of the economy by central planning. The unfortu-

<sup>10</sup> Agence France Press (December 7, 1993) reported that the Agriculture Minister Liu Jiang said there were 150 million excess farm workers (out of a rural labor force of 450 million).

<sup>11</sup> Chow (1993) found the marginal value product of labor in 1978 to be 63 yuan in agriculture, 1027 yuan in industry, 452 yuan in construction, 739 yuan in transportation and 1809 yuan in commerce. Figures are expressed in 1952 output values.

<sup>12</sup> *Far Eastern Economic Review*, "Irresistible Force," April 4, 1996. *Newsweek*, "Crime: You Die, I Live," July 22, 1996, reported an estimate of 120 million.

<sup>13</sup> The sum of the official estimate of 80 million who moved out of home district and the 20 million who moved within their home districts.

TABLE 3. Summary of Official Growth Rates.

(Percentage points per annum)

Growth Rate Measure	1979-93	1985-1993
Official growth rate .....	9.3	9.7
Inconsistent use of base years .....	0.2	0.3
Overstatement of industrial output .....	0.5 to 0.7	0.9 to 1.2
Capital accumulation .....	4.9	5.5
Labor force growth .....	1.3	1.1
Reallocation of labor from agriculture .....	1.1	1.3
Net TFP growth .....	1.1 to 1.3	0.3 to 0.6

Source: Authors' calculations.

nate implication for future Chinese growth is that this one-time recovery in efficiency was not limited to the agricultural sector, it was also present in the industrial sector.

The second robust result from the growth accounting exercise is that the reallocation of labor from agriculture accounted for much of the observed TFP growth, perhaps more than half. This labor reallocation effect was much higher in the 1985-93 subperiod. To indicate how large this effect is, we note that Denison (1974, p. 127) estimated that labor reallocation from the farm sector accounted for only 13 percent of TFP growth in the United States in the 1948-69 period.<sup>14</sup> The large labor allocation effect in China reflects the existence of large amount of labor employed in low-productivity agriculture and the success of the post-1978 Chinese reforms in creating higher-productivity jobs in the industry and service sectors.

#### EXPLAINING THE GROWTH

The high rate of capital accumulation (the biggest contributor to Chinese growth) has its basis in the liberalization of a labor-surplus economy that has a high savings rate. Investment is highly profitable because the surplus labor prevented the real wage from rising significantly and the large pool of domestic savings prevented the interest rate from rising. The importance of the latter is seen in that household savings is about 23 percent of disposable income in China versus 21 percent in Japan, 18 percent for Taiwan, 16 percent for Belgium, 13 percent for West Germany and 8 percent for the United States (World Bank, 1990, Table 4.9).

It should be noted that China's high household savings rate has helped to stabilize the economy beside enabling a high rate of capital accumulation. It reduced inflation in the Chinese economy through two channels. First, the flow of savings through the banks reduced the need to print money to meet the excessive resource demand of the SOE sector. Second, as money was (until recently) the only form of financial saving in China, the high saving rate meant an increasing demand for money, hence dampening inflation pres-

<sup>14</sup> U.S. national income grew 3.85 percent annually in the 1948-69 period, and TFP growth was 1.75 percent; with labor reallocation from the farm sector accounting for 0.23 percentage points.

sure. This inflation-damping effect can be seen in the rise of the M2 to GNP ratio from 38 percent in 1979 to 106 percent in 1992.

In addition to the "advantages of backwardness" in economic structure and the high saving rate, there are several other factors that have contributed to China's impressive growth performance. The most important of these other factors is China's integration into the global economy. This factor operates through four channels. First, the access to international markets for labor-intensive manufactured goods accelerated the movement of labor out of low-productivity agriculture into high-productivity industry. Second, China could now buy modern technology (some of which were previously denied to China). Third, foreign direct investments increased the capital stock, transferred new technology, made available global distribution networks, and introduced domestic firms to more efficient management techniques. Fourth, the competition from international trade forced Chinese enterprises to be more efficient and innovative.

The second supplementary factor in China's reform success is that China's reforms did not start in a situation with a severe macroeconomic crisis and a severe external debt crisis that required the implementation of an austerity program. China has been developing its economy by having the TVEs employ the idle agriculture labor, while Poland and Russia have been attempting to tame inflation and restructure their fully-employed economies simultaneously.

A third supplementary factor is the two disastrous leftist campaigns, the Great Leap Forward (1958–62) and the Cultural Revolution (1966–76), that undermined belief in Marxist dogmas, weakened the state's administrative capacity, and discredited central planning. The Great Leap Forward program of crash industrialization starved 30 million to death in the 1958–61 period, and the Cultural Revolution effort to build the new socialist man purged 60 percent of party officials. The legacy of these two disasters enabled Deng Xiaoping to quickly transfer a significant amount of economic policy-making power (which translated into a transfer of economic and political resources) to the provinces when he returned to power in 1978. The central ministerial and party apparatus was too politically exhausted and too discredited to resist his decentralization.

This ending of Beijing's stranglehold over political power has been fundamental to the continuation of economic reforms. When the conservatives sought to re-impose a Stalinist central planning economy in the immediate aftermath of the Tiananmen incident in 1989, the provincial representatives were strong enough to repel the recidivist tendency toward central planning. Furthermore, it was the mobilization of this new decentralized political power by Deng Xiaoping after the collapse of the Soviet Union that forced the conservative faction to accept the new vision of a socialist market economy.

A fourth supplementary factor is that central planning in China was always much shallower than in CEEFSU. The Soviet central plan controlled 25 million commodities whereas the Chinese central plan controlled only 1200 commodities (Qian and Xu, 1993). Furthermore, the breakdown of the national distribution system in the

Cultural Revolution decade forced local authorities to promote small and medium industrial enterprises to meet local demand.

The existence of family ties between the mainland Chinese and the overseas Chinese is a fifth supplementary factor. The explosive growth of the Special Economic Zones (SEZs) in southern China is caused by the wholesale movement of labor-intensive industries from Hong Kong and Taiwan which were losing their comparative advantage in these industries. China was closer, wages were lower, and language difficulties were non-existent, compared to the alternative sites in Southeast Asia. Managers could commute daily from Hong Kong to supervise their factories in Shenzhen. The family connections greatly reduced the transaction costs of the investment by providing reliable local supervisors, inside information on the enforcement of regulations, and contacts with the local authorities.

Of all the factors identified as important causes of China's achievements in the 1978-95 period, only the high saving rate and the globalization of China's economy could be considered lessons for economic reforms. The other factors (all being initial conditions and structural features) are rather specific to China's circumstances.

The experience of Vietnam confirms that it is China's structural conditions, rather than its gradual reform process, that mainly account for its superior growth performance vis-a-vis the CEEFSU countries. During 1985-88, Vietnam implemented a gradual reform strategy that did not address serious macroeconomic imbalances. The program failed: inflation accelerated while growth and trade performance remained unchanged. In 1989, Vietnam enacted an Eastern-European style "big bang," including price liberalization, a 450 percent devaluation to unify the exchange market, and sharply tightened credit policy. The collective farms were returned to family farms with long-term leases. Growth accelerated, inflation ended, agricultural productivity soared, and small, non-state enterprises proliferated.

The "big bang" did not cause an output decline in Vietnam as in Eastern Europe. The difference lies of course in Vietnam's economic structure in 1988. As an overwhelmingly agricultural economy, Vietnam enjoyed the same gains as China from the flow of peasants to the non-state, non-agricultural sector. Strong market-oriented reforms (macroeconomic stabilization and liberalization), not gradualism *per se*, tend to accelerate this shift.

Economic development in China, and Vietnam since 1978 actually fit quite well with the general East Asian development pattern. Japanese, Malaysian, Taiwanese and Thai economic growth have also been described by a two-sector model focusing on the flow of workers from agriculture to industry. The resulting export of waves of labor-intensive exports in line with the product cycle theory has been poetically described as the "flying geese" pattern of industrialization.

The high labor reallocation effect in China resembles that seen in Japan in the mid-1950s when the trend growth rate accelerated as Japan's integration into the global economy intensified. Ohkawa and Rosovsky (1973, p.116) found the contribution to aggregate output growth from the reallocation of labor from agriculture to be:



Period	Labor Reallocation Effect (in percentage points per year)
1905-19	0.63
1919-31	0.25
1931-38	0.61
1952-55	0.76
1955-61	1.46
1961-65	1.07

Given the East Asian growth experience and China's large pool of low-productivity rural labor, we regard the labor-allocation effect of 1.2 percentage points to be the dependable contribution to China's TFP growth in the medium run.

#### FUTURE CHALLENGES

Two points about China's gradual reform program deserve re-emphasis. The first is that the dual-track approach worked in China, but not in Jaruzelski's Poland and Gorbachev's Russia, because of China's vast rural hinterland. The TVEs and other non-state enterprises were able to grow without sharp rises in marginal costs and without the need to force reductions of employment in the SOEs because of the existence of surplus agricultural workers. The second is that China's gradualism is an "easy-to-hard" reform sequence. It began with the relatively easier problems and has left the hard problems until later. In contrast, the more radical approach in parts of CEEFSU have tackled the hardest problems—including ownership transformation, structural reforms, and political democratization—at the beginning.

China's rapid growth can continue as long as the non-state sector remains dynamic, and essentially unhindered by financial losses or problems thrown up by the SOE sector. Dynamism of the non-state sector, however, is likely to require continuing reforms in that sector, such as the extension of truly private ownership instead of collective ownership. Moreover, state enterprise reforms will have to be deepened in the future, to include privatization and structural adjustment, if losses in that sector are to be kept limited.

We would enumerate the main economic reform challenges as follows: (1) restructuring of TVE ownership, to encourage private, transferable ownership rights; (2) the restructuring of the SOE sector, especially to encourage private, corporate forms of ownership; (3) the modernization of the fiscal system and of federal-local fiscal relationships; (4) the development of a non-state financial sector; (5) the elimination of policies that aggravate regional inequality; and (6) the establishment of market-supporting institutions and commercial law.

We will conclude with brief comments on these six tasks.

#### OWNERSHIP TRANSFORMATION OF THE TVES

China would be ill-advised to continue to base its rural industrialization on collective ownership. This is especially true as geographical mobility within China rises, so that the village no longer represents a long-term stable base for collective ownership. The problems for the future can be divided, in the broadest sense, into

two parts. First, what kinds of ownership should be encouraged for new rural enterprises? Second, what should be done about the ownership structure of existing TVEs?

The main task for future enterprises is to ensure that normal forms of private ownership—including self-proprietorships, partnerships, privately held corporations, and publicly held corporations—are all possible in the rural economy without incurring excessive transactions costs. Even if collective ownership by the community remains one important option for the future, it is also necessary that truly private ownership be allowed and fostered by the legal system. The new company law that went into effect on July 1, 1994, is an important step forward in this task.

The second problem, concerning the existing TVEs, is more complicated. Throughout China, existing TVEs are suffering from the lack of clarification of property rights, and there are many spontaneous attempts throughout the country to clarify the ownership of the TVEs. In almost all cases, there are at least three claimants, or stakeholders, that are insisting on their ownership rights: local governments, enterprise managers and workers. The situation is further complicated by the vast variety of ways that individual TVEs actually got started.

As a general point, China might benefit from one important aspect of the Eastern European and Russian privatization experience when it considers the ownership question of the existing TVEs. In the most successful privatization programs—such as in the Czech Republic—one of the key strategies was to give each enterprise some range of choices with respect to future ownership change. In any successful ownership transformation of the existing TVEs, it will be important, and probably inevitable, to give choices to the community. The community, and perhaps workers, could vote among a menu of possible legal options, including preservation of the collective structure, or privatization among the main stakeholders.

#### RESTRUCTURING THE SOE SECTOR

The reform of the SOE sector has been disappointing. TFP growth in the SOE sector is at best only half of that of TVEs. There is in fact serious doubt that SOEs' TFP growth after 1984 is actually greater than zero!<sup>15</sup>

If we go beyond technical efficiency as the sole criteria of successful reform, then China's SOE reform record looks even worse. Overall profitability of the SOE sector has been declining, and the number of loss-making SOEs are increasing. This poor financial performance was most vividly seen in 1992 when output grew 13 percent, and yet two-thirds of Chinese SOEs were running losses in a boom year! The overall profits of the SOE sector actually turned negative in the first quarter of 1996. Some observers have suggested that the primary reason for the profit decline in the SOEs is the expansion of competition by collectively-owned enterprises allowed by the economic reforms. The problem with this explanation is that the fall in SOE profits occurred across the board, even in

<sup>15</sup> See debate between Woo, Fan, Hai, and Jin (1993 and 1994) and Jefferson, Rawski and Zheng (1994).

heavy industries with negligible new entry by non-state firms. The more likely reason for the decline in profitability is that the decentralized reforms of devolving operational autonomy to the SOEs have enabled the SOE personnel to appropriate for themselves the profits that should have been repatriated to the state.<sup>16</sup>

The CEEFSU experience prior to 1990 suggests that without deeper reforms of the SOE sector, the financial demands of loss-making state enterprises will continue to threaten macroeconomic stability. In our view, it will be highly desirable for China to push forward to privatization of the SOE sector, and liquidation of the unredeemable loss-making enterprises. Widespread privatization, perhaps under a different rubric, is not as far-fetched as it might seem. There are currently some 25 property rights exchanges in China where state assets are sold to the public.<sup>17</sup> Reports indicate that there are around 150 unofficial property rights exchanges in smaller cities, and the operations of these unofficial exchanges are dependent on the ideological climate.

#### MODERNIZATION OF THE FISCAL SYSTEM

The 1994 tax reform has not reversed the decline in revenue as hoped. Tax collection in 1994 was 12.4 percent of GDP, down from 13.8 percent in 1993. While the continued financial weakening of the SOE sector was an important reason for the decline, it appeared that many branches of the new National Tax Service had not really divorced themselves from the influence of the local governments, which desire to retain the funds for local development.

The tax system has continued to be badly administered, hence allowing tax fraud and tax evasion. Under the new VAT system, producers receive VAT refunds on their exports. However, the large amount of false export claims has resulted in over-payment of VAT refunds. The government has suspended the VAT refunds for exports. Local governments are continuing to give illegal tax exemptions, such that the actual customs revenue (which goes to the central government) is only 6 percent of total import value, despite an average tariff rate of over 30 percent.<sup>18</sup>

It is imperative that tax administration be improved and that central-local fiscal relations be better institutionalized to yield independent tax authority to the central and local governments. Otherwise, the state would not be able to finance the infrastructure investments required to prevent bottlenecks that would slow economic growth.

#### DEVELOPMENT OF THE NON-STATE FINANCIAL SECTOR

Presently, the state banks dwarf all other financial institutions as sources of funds, and SOEs receive about 70 percent of total domestic credit. Recognizing the gross inefficiencies of the state banks, the government has ordered them to commercialize their operations. If the government can actually allow the state banks to do so despite the worsening financial performance of the SOEs,

<sup>16</sup> See Fan, Hai and Woo (1996).

<sup>17</sup> "Property Rights Exchanges on Increase," *China Daily*, February 19, 1994.

<sup>18</sup> This low realized tariff rate also reflects the immense amount of export-processing activities where the import of the raw inputs for the assembly operations entered tariff-free.

more capital would be channelled to the more efficient non-state enterprises, a desirable outcome.

Both the transformation of the state banks and the greater access to investment funds by the non-state would be achieved faster if the government would unleash competition by legalizing non-state financial institutions. The private banks would compete directly against the state banks; and the private nonbank financial institutions, by deepening the equity and bond markets, would create alternative sources of investment funds. Another desirable by-product of the competition from the non-state financial institutions is that it would be more difficult (costly) for the government to impose many non-economic objectives on the state banks.

Given the grave financial crisis that state-managed pension schemes have caused in many developed countries, China should avoid this future financial trap by allowing the establishment of private pension funds. Concretely, the government should not expand the existing state-managed pension schemes to cover non-state employees. The present virtual monopoly status of the People's Insurance Company of China in providing social insurance to non-state employees is hard to justify.

#### ELIMINATION OF POLICIES THAT AGGRAVATE REGIONAL INEQUALITIES

Recently announced plans include giving the backward interior provinces the same preferential trade and investment enjoyed by the coastal provinces, and eliminating some of the special tax benefits enjoyed by the coastal areas. These measures should help to ameliorate the growing regional inequalities of the past decade, though the coastal regions will continue to benefit from an inherent geographical advantage in participating in world trade. It is also important to end price controls on grain prices for farmers, and to provide more support for social infrastructure in the rural areas.

#### DEEPENING OF MARKET-SUPPORTING INSTITUTIONS

The rule of law is an absolute necessity for the establishment of a system of property rights, and an independent judiciary body is required for objective adjudication of disputes. Furthermore, regulatory institutions to supervise the financial markets are important in maintaining the integrity of these markets, and hence the public confidence in them. The state should focus on delivering social services that markets usually provide inadequately, if at all e.g. welfare, education (especially in rural areas), and health-care to the indigent. The correction of market failures like those above will both improve the working of a market economy and strengthen its political foundations.

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# CHINA'S REFORMS IN THE WIDER CONTEXT OF TRANSITION

By Alan Gelb\*

## CONTENTS

	Page
Summary .....	86
Introduction .....	87
Moving to the Market: Approaches Along Two Paths .....	88
Economic Structure .....	89
Macroeconomic Legacy .....	90
Political Factors .....	91
Economic Liberalization .....	92
De-Statization .....	92
Key Institutions .....	93
Economic and Social Outcomes in China and Other Countries .....	94
Property Rights and Enterprise Reform .....	96
Social Policies in Transition .....	97
Looking Ahead: The Agenda for Reform .....	99
References .....	100

## TABLES

Table 1. Economic Structure in Russia and China .....	90
Table 2. Comparative Progress in Reforms .....	93
Table 3. Economic and Social Outcomes During Transition .....	95

## FIGURE

Figure 1. GDP Growth and Inflation in China .....	91
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## SUMMARY

China's reforms since 1978 are sometimes considered as *sui generis*; some, however, consider them as a model for other transition countries. Neither of these views is correct:

- In important respects China's reforms have indeed been distinctive, especially in the ways that liberalization policies have been implemented and how they have interacted within economy-wide macroeconomic constraints. This, in turn, has largely reflected specific initial conditions—which make it unrealistic to simply transplant policies between very different countries.
- However, aspects of China's reforms have parallels in those of other countries, including in Central and Eastern Europe (CEE), the newly Independent States of the Former Soviet

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Union (NIS) and Vietnam. The challenges facing China in its next stage of reform are also similar to problems that reformers in CEE and the NIS have been forced to address up front, because of their different structural and macroeconomic conditions. The recent experience of these countries therefore increasingly holds important lessons for China.

#### INTRODUCTION

This paper discusses China in the wider context of other transitional reforms and outcomes. It is based on the analysis in the World Bank's 1996 World Development Report, "From Plan to Market."<sup>1</sup> The next section contrasts two "model" approaches to reform—"all-out" and "phased"—and the structural, macroeconomic and political factors that affect the choice of reform strategy and the outcomes. It then considers progress in reforms and outcomes. In terms of economic liberalization, measured as exposure to market forces over the last several years, China emerges as a fairly advanced reformer, even though its economy is currently less fully liberalized than those of the leading reformers in CEE. Partly because of policymakers' capacity to exploit relatively favorable initial conditions, its economic performance over the reform period has been very different from that of most other transition countries. The next sections consider two specific areas of transition policy in comparative perspective: enterprise reforms and property rights, and the challenges facing social safety nets. Finally, the paper comments on the reform agenda for China relative to the priorities of more and less advanced reformers in CEE and the NIS.

Moving from plan to market is enormously complex, and all countries face two huge challenges. The first involves overcoming the deep structural distortions that comprise the physical legacy of planning. An important element of transition is the process of re-allocating resources out of overbuilt sectors and into sectors and activities that were repressed by the previous system. Heavy industry was vastly overbuilt in planned economies, and the problem of non-competitive sectors was exacerbated by the poor quality of most manufactures, including consumer goods. For example, in the 1980s, for many manufacturing subsectors the unit value of exports from CEE to the EU was barely one third of that of exports from industrial countries. These problems were, of course, most serious for the more industrialized of the planned economies, and those in the USSR that had the longest exposure to planning.

On the other hand, some sectors were repressed in the planned economy. Services (trade, finance) appear to have been repressed in all countries, but the large agricultural sector was repressed in China through low procurement prices, whereas in CEE and the NIS agriculture, as well as industry, was subsidized. This meant that reforms in China initially resulted in an improvement in rural-urban terms of trade and a wide distribution of gains across the economy. Energy was a major repressed sector in the Russian economy—the difference between output valued at world prices and

<sup>1</sup>The World Development Report also includes an extensive bibliography, to which the reader is referred.

internal prices was equal to about 11 percent of GDP. The distributional effects of liberalization were therefore different.

The second major challenge of transition is how to build the deep institutions underlying an efficient modern market economy. Effective laws and court systems, market-based banks and accounting systems, and the workings and financing of government itself are essential to a well-functioning market system. Yet, in transition countries, these institutions were adapted to a regime of planned resource allocation. Even those countries in CEE which had moved away from formal planning in the 1950s and 1960s had not reformed their institutions in a fundamental way. Institutional development takes time, not least because it requires an extended process of human capital conversion. China has faced this problem like other transition countries, even though it has been able to draw on the skills of the overseas Chinese community in certain areas.

#### MOVING TO THE MARKET: APPROACHES ALONG TWO PATHS

Many of the reform programs initiated in CEE and the NIS aimed to replace central planning with the rudiments of a market economy as quickly as possible. "Radical" reforms involved rapid price and trade liberalization, a quick move to current account convertibility and immediately opening entry to new private businesses. These systemic reforms were complemented by stringent stabilization programs. They also involved initiating, at least, a wide range of other reforms, such as privatization, new accounting standards, tax reform, financial sector reforms, and so on.

Experience in Poland and elsewhere shows that some changes can indeed occur very quickly. Markets and new entry can be liberalized overnight, and stabilization can be effected rapidly—even using a simple range of policy instruments. However, other changes take far longer. These include changing corporate governance in large firms, and rebuilding the key institutions that underpin the workings of a modern market economy. The fact that reforms are moving at different speeds means that even the fastest reformers will not, at first, have a fully efficient market system. At the same time, they will confront the full stresses associated with the need for structural adjustment of their productive capacities.

The ability to carry out such a program without serious reversals is clearly greatly enhanced if economic reforms are part of a wider process of political and social change that is approved by the bulk of the population. This has especially been the case in the CEE region, where many countries have aspirations to join the European Union, and where survey results suggest that favorable views on political developments since 1989 have cushioned an initially very stressful period of economic reform. The approach also relies on rapidly building a constituency for continued reforms from the "winners" of the initial phases. And indeed, the return of former socialists to power may have slowed reforms in certain countries, but so far they have not been reversed.

An alternative, "phased" approach is to start with localized experiments, first liberalizing repressed sectors selectively and then extending reforms to the rest of the economy to rationalize the overbuilt or uncompetitive sectors as the institutional building blocks of a market system are put in place. Initial success is re-



quired to build the constituency for the second phase of reforms. This strategy relies on there being scope for large gains from initial, partial, reforms and an effective means of transferring resources to the less competitive sectors. Government must be able to control the planned segment of the economy to limit diversion of goods or financial resources to the market segment—strong macroeconomic and microeconomic management is essential.

Using initial gains from liberalizing reforms to defer, and then to underwrite the more difficult process of large-scale restructuring has its own costs and risks in the phased strategy. The costs include resources used to support uncompetitive firms for an extended period. The risks include that of loss of control and of policy reversal, especially in the face of restructuring that involves politically difficult downsizing of major firms.

The phased approach is essentially the path followed by China. Initial reforms in 1978–84 opened the door to joint ventures and began to liberalize prices, first at the margin and then more extensively. Most early reforms focused on the rural economy, extending the locally-initiated “household responsibility system” in farming, raising agricultural prices and permitting new “township and village” industrial firms to develop and compete with the state sector. After 1984, reforms spread to the urban economy, Management of state enterprises was reformed, as their source of finance was shifted from the budget to the banking system, restrictions were eased on trade and foreign investment and a variety of institutional reforms was begun, including the re-creation of a central bank. Reforms accelerated in 1994 and 1995, particularly with regard to taxes, company law and foreign trade.

Is there really a choice of strategy? Although theory offers a wide range of possibilities, in practice the set of options is far more limited for a given country. Three factors are important in influencing the approach: economic structure, macroeconomic legacy, and political factors.

#### ECONOMIC STRUCTURE

As observed by Sachs and Woo 1994, one of the factors that enabled China to reform in a phased manner was the high share of its labor force in agriculture (Table 1). Initial reforms which raised farm prices and boosted agricultural productivity allowed 100 million workers to be reallocated to new, largely rural, nonstate industry. In contrast, agriculture employed only 13 percent of the labor force in Russia, and structural adjustment involves a painful process of reallocating employees out of mechanized state enterprises in agriculture, as well as out of (non-energy) industry. Both of these sectors have experienced adverse relative price trends in Russia following reforms, in favor of services (including banking) and energy. And in Russia, almost all of the population was covered by the state’s social safety net. The state sector in China employed only 18 percent of the population (Table 1), and this increased potential labor mobility.

TABLE 1. Economic Structure in Russia and China.

Measure	1990	1994	1978	1994
GDP per capita at PPP (\$) .....	6,960	5,260	1,000	2,510
State sector employment share (percent) ..	90	44	19	18
Sectoral employment shares (percent)				
Agriculture .....	13	15	71	58
Industry .....	42	38	15	18
Services .....	45	47	14	25
M2/GDP (percent) .....	100	16	25	89

Source: World Bank and IMF databases and World Bank staff estimates.

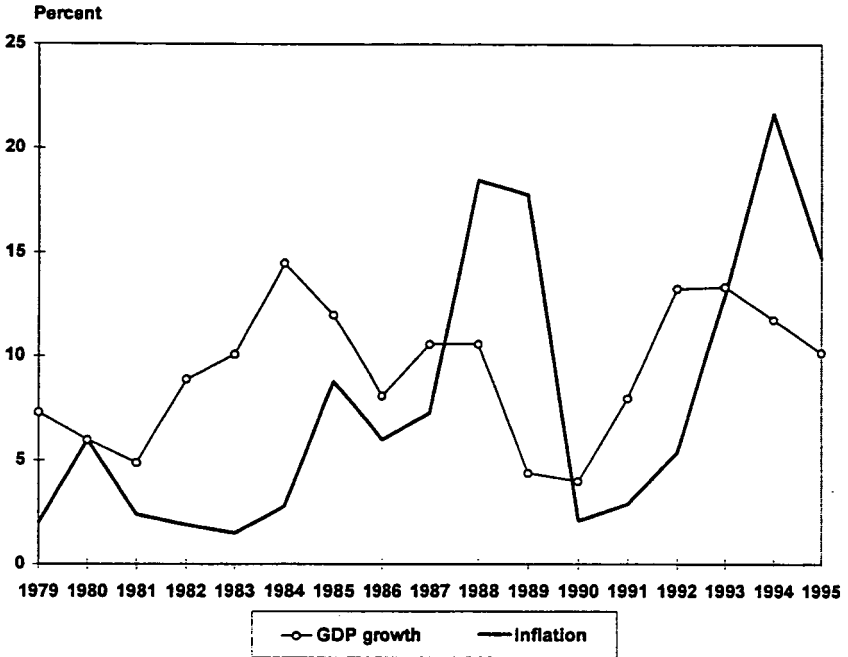
#### MACROECONOMIC LEGACY

At the start of reforms, China also differed from countries in CEE and the NIS in that savings were small, and the economy was largely non-monetized. In 1978 the ratio of broad money (M2) to GDP was only 25 percent (Table 1). Chinese households saved a large share of their income gains and deposited in banks; surveys suggest that this was encouraged by a strong bequest motive and later also by some increase in economic uncertainty engendered by reforms. China's savings rate of 37 percent of GDP over its reform period has been one of the highest in the world.

Successive reform initiatives have triggered "boom-bust" cycles in China (Figure 1) but inflation has remained moderate. High savings out of rapidly growing incomes have helped to underwrite effective macroeconomic policies to contain demand. Where needed, these have included direct controls; neither fiscal nor monetary policy yet offers a strong vehicle for indirect macroeconomic management.

Net transfers from banks to firms (changes in loans less enterprise deposits and scheduled interest payments and receipts) have therefore been large throughout the reform period in China. Growth and financial deepening have allowed a rising volume of loans to be provided at interest rates that have often been below the rate of inflation; most loans have gone to the state sector (see also McKinnon 1994). Firms have also enjoyed a hidden subsidy in the form of growth in nonperforming loans, officially put at 20 percent of the portfolio by the mid-1990s. With further financial sector development and the possibility for households to diversify into other assets, the cost of savings is likely to rise in China. The challenge is therefore to speed the process of enterprise reform and adjustment, to enable the return on savings to rise.

The macroeconomic context of liberalization was very different in CEE and the NIS. In Russia, for example, M2 already equalled GDP by 1990, with a large "monetary overhang" representing savings already supplied to the planned economy and invested in unproductive assets. Fiscal deficits then exploded as the USSR disintegrated—estimates place the 1991 Union deficit at 28 percent of GDP. When liberalized in 1992, prices therefore skyrocketed in Russia by over 1,300 percent, decapitalizing households and undermining confidence in financial savings.

**Figure 1. GDP Growth and Inflation in China.**

Source: World Bank 1995e, 1996a.

These structural and macroeconomic factors have had important implications for the capacity of banking systems to transfer resources to enterprises, and for the speed of adjustment in the real economy. In CEE and the NIS, after the initial phase of high inflation real interest rates have exceeded real growth rates, and spreads between lending and borrowing rates have been high. Net transfers from banks to firms have typically been negative, that is, banking systems have not had the deposits needed to transfer net resources to their borrowers.

Neither have governments been able to replace previous implicit cross-subsidies with fiscal subsidies and at the same time contain fiscal deficits sufficiently to allow inflation to come down to moderate levels. These countries have therefore not been able to cushion overbuilt state sectors, which also loomed far larger in their economies than they did in China. Enterprise adjustment has therefore been faster in CEE, especially in the more advanced reformers, and countries have not been able to bring inflation down to moderate levels and restore growth without severing links between governments and firms and liberalizing the economy.

#### POLITICAL FACTORS

In CEE and the NIS, comparisons of indices of political change (such as Freedom House's Gastil index) and indicators of economic reform show a close association, both across countries and, for indi-

vidual countries, over time (see De Melo, Denizer and Gelb 1996). Political reforms largely drove economic reforms in these countries, in part because they weakened powerful interests, such as the line ministries that controlled the enterprise sectors. In addition, the phase of "extraordinary politics" that followed the political breakthrough involved a limited period where there were no established pressure groups to oppose the radical reforms that were typically initiated by a small group of policymakers. Radical economic reforms have been easier when political change has been rapid and fundamental.

In contrast, in China (and also in parts of the NIS such as Uzbekistan which have sought to follow a more controlled and phased approach), economic reform has been seen as necessary to sustain support for an incumbent government. In these conditions, using gains from initial liberalizing reforms to cushion the stress of large-scale restructuring may appear to be the only politically viable option.

Given the differences in approach, where is China in the spectrum of reformers? As part of the process of preparing the World Development Report, the extent and duration of reforms were assessed across 28 countries.

### *Economic Liberalization*

The cornerstone of the reforms is economic liberalization, of domestic markets, international trade and the entry of new business activities. Economies take time to adjust to liberalization, however, so that the recent history of reforms, rather than simply their current status, is an important indicator of their impact. Table 2 shows indices of the cumulative, or total level, of liberalization over the period 1989–95 for countries in CEE and the NIS and Mongolia (which is included in this group because of its close linkages with the Soviet economy) and for China and Vietnam. The former set of countries is divided into four reform groups according to the level of cumulative liberalization. Some countries have suffered severely from regional tensions, in particular blockades or civil wars. Indicators of reform vary widely in this group, and they are treated separately. The table also shows estimates of the degree of liberalization in 1995, the share of the private sector (in the case of China and Vietnam, the nonstate sector) in the latter year, and cumulative foreign direct investment inflows over 1989–95 relative to 1994 GDP.

Market processes and competition have strengthened in China in recent years, in part because of improvements in trading infrastructure. But in 1995 its economy was still less liberalized than those in CEE countries. For example, China retained a number of trade restrictions (which studies have suggested are economically costly), whereas the CEE countries moved swiftly to very open markets and trade. However, because of its earlier start to liberalizing reforms, China emerges as a fairly advanced reformer—in between groups 1 and 2 in terms of its overall exposure to market forces.

### *De-Statization*

Ownership has also diversified greatly in China. The share of its state sector—at about 40 percent—is comparable to that of coun-

TABLE 2. Comparative Progress in Reforms (unweighted averages).

Country or group	Cumulative Liberalization Index, 1995 <sup>a</sup>	Liberalization Index, 1995 <sup>a</sup>	Changes in Private Sector Share, 1990-95 <sup>b</sup>	Private Sector Share in GDP, 1995 <sup>b</sup>	Ratio of FDI to 1994 GDP; 1989-95
CEE, NIS and Mongolia					
Group 1 .....	6.9	8.9	43.3	56.9	10.2
Group 2 .....	4.7	7.6	41.4	51.7	6.7
Group 3 .....	3.4	6.9	30.9	38.4	2.0
Group 4 .....	2.0	4.4	14.5	23.4	0.7
RT .....	3.9	5.9	20.1	33.8	1.1
China .....	5.2	5.9	8.0 <sup>a</sup>	56.0 <sup>a</sup>	23.3
Vietnam .....	5.8	6.5	-7.7 <sup>a</sup>	59.8 <sup>a</sup>	2.3

Source: World Bank Data.

<sup>a</sup> Updated index from De Melo, Denizer and Gelb 1996.

<sup>b</sup> Nonstate share.

Note: Country groups for CEE, NIS and Mongolia. Group 1: Czech Republic, Hungary, Poland, Slovak Republic, and Slovenia. Group 2: Albania, Bulgaria, Estonia, Latvia, Lithuania, Mongolia, and Romania. Group 3: Kazakstan, Kyrgyz Republic, Moldova, and Russia. Group 4: Belarus, Turkmenistan, Ukraine, Uzbekistan. RT (regional tensions) countries include: Armenia, Azerbaijan, Croatia, FYR Macedonia, Georgia, and Tadjikistan.

tries in groups 1 and 2. Relative to GDP, over 1989-95 foreign direct investment inflows into China have also been larger than those into any other transition country apart from Hungary.<sup>2</sup> However, China's true private sector is far smaller than those in the leading reformers in CEE and the NIS. This points to a distinctive feature—a large portion of China's economy consists of a "nonstate" sector, with firms owned by collectives or local governments, rather than being state-owned or privately-owned in the classic sense. Clarifying property rights in China is therefore an issue that goes well beyond the state sector.

### Key Institutions

Cross country comparisons of institutional changes across the 28 countries indicates that they usually parallel the progress of economic reforms. This is in part because reforms create demand for new institutions. Without a hard budget constraint, for example, creditors do not develop the capacity to use bankruptcy procedures to work out the debts of problem clients even if a bankruptcy law is formally on the books. China's level of institutional reform in many areas appears to be comparable with that of the group 2 reformers, that is, broadly in line with its cumulative reform experience. Nevertheless, its reforms lag behind in certain areas.

One such area is the banking system. A substantial volume of credit is still dispensed in accordance with a national credit plan in China. Interest rates are still largely regulated, with lending rates and enterprise deposit rates often held below the level of rates on household deposits, although there have been some recent moves to adjust the rate structure. China's move to create three new policy banks in 1994 may represent a significant step in the

<sup>2</sup> Part of FDI into China consists of capital exported in order to take advantage of tax and other concessions.

process of delinking policy lending and commercial lending, but the speed of financial sector reform is heavily constrained by the pace of state enterprise reform. This in turn is constrained by the rate of change in social policy, among other factors.

A second critical area is fiscal reform. The process of fiscal recentralization initiated in 1994 has particular importance because of China's vast size and the diverging progress of its regions. Between 1978 and 1994, government expenditures in China halved relative to GDP, declining to about 17 percent, well below the level of about 26 percent of GDP that is typical for countries at China's level of income per head. Most of China's revenue decline was due to smaller contributions by state enterprises. This partly reflected government intentions. In the interests of increasing enterprise autonomy, firms were allowed to keep a larger share of their profits. Revenue collection was further undermined in 1988 by the new contract system which sanctioned "tax payment by negotiation." But greater competition from collectives eroded state enterprise profits; moreover, as local governments gained economic and political strength, they began reducing their efforts to collect those taxes that were to be shared with the center, and granting tax relief to "their" enterprises. They also managed to appropriate considerable resources for local purposes, by channeling local surcharges on taxes into their own extra-budgetary funds and letting enterprises "donate" funds for local projects. Until 1994, China lacked an effective tax administration. Strengthening this area is therefore a very high priority, especially as government takes over social obligations from enterprises.

#### ECONOMIC AND SOCIAL OUTCOMES IN CHINA AND OTHER COUNTRIES

In important respects, China is therefore quite an advanced reformer relative to other countries that have recently moved from plan to market, although it has taken a distinctive approach to reforms. The outcome of its reforms has also been different—in contrast to the CEE countries and the NIS, China (and also Vietnam, where liberalizing reforms and stabilization policies have been closer to those initiated in the CEE region) has enjoyed spectacular growth throughout its reform period (Table 3), even if growth may be overstated by official statistics. Much of China's growth (the highest in the world, apart from small, diamond-rich Botswana) has come from the expansion of previously repressed sectors. In addition to agriculture, these include services (between 1979 and 1994, the share of services in GDP rose by 10 percentage points because of both faster growth and favorable relative price changes), and exports. China went from being the world's 32nd largest exporter to its 10th largest, replacing the East Asian "tigers" as a major exporter of labor-intensive manufactures. New, nonstate, businesses played a crucial role in growth and job creation, and joint ventures and private firms have made a strong contribution to growth and exports in recent years. More generally, China's growth has also been fueled by high rates of savings and investment in the industrial sector, and a consequent increase in labor productivity. Between 1978 and 1993 overall industrial labor productivity rose by over 150 percent—but with different underlying rates of total factor productivity increase in state and nonstate sec-

tors, as discussed in the section of this paper entitled "Property Rights and Enterprise Reform."

TABLE 3. Economic and Social Outcomes During Transition.

Country or group	Average GDP growth (percent per year)		Average inflation (percent per year)		Change in social indicators, 1989-94 <sup>a</sup>	
	1989-95	1994-95	1989-95	1994-95	Life expectancy	Infant mortality
CEE, NIS, and Mongolia						
Group 1 .....	-1.6	4.3	106.0	18.7	0.7	-1.8
Group 2 .....	-4.2	4.0	149.2	59.0	-0.2	-1.8
Group 3 .....	-9.6	-12.5	466.4	406.8	-4.4	0.9
Group 4 .....	-6.7	-11.4	809.6	1,176.5	-1.6	-1.9
Countries severely affected by regional tensions	-11.7	-7.5	929.7	1,328	0.5	-2.7
China .....	9.4 <sup>c</sup>	11.0	8.4 <sup>c</sup>	20.6	2.1 <sup>b</sup>	-11.1 <sup>b</sup>
Vietnam .....	7.1 <sup>d</sup>	7.9	114.8 <sup>d</sup>	13.2	1.7 <sup>c</sup>	-5.4 <sup>c</sup>

Note: All data for recent years are subject to revision.

<sup>a</sup>Data do not take into account a possible rise in measured infant mortality rates due to the shift to international methodology in the NIS around 1993. Social indicators are population-weighted.

<sup>b</sup>Data are for 1978-95.

<sup>c</sup>Data are for 1986-95.

Source: IMF and World Bank data.

Services and exports to industrial economies have also led the recovery of the more advanced reformers in CEE. For example, the increase in the share of services in GDP in group 1 and 2 countries in 1989-95 was 16 and 10 percentage points, respectively, and the leading reformers have reoriented their trade towards market economies, in particular, those in the European Union. New businesses have also been instrumental in their growth. For example, Poland's 7 percent growth in 1995 reflected 15 percent growth in the private sector and 3 percent contraction in the state sector.

The initial phase of the reforms in these countries has, however, been dominated by the massive structural adjustments which have been needed in their state sectors, in particular in industry. Thus, in the leading reformers Poland and Hungary, industrial labor productivity at first fell sharply as output slumped in 1989-91. It then began to recover as layoffs mounted (many established firms have cut work forces by half or more since 1989) and as new products and processes have spurred the growth of a new industrial sector. By 1995, labor productivity exceeded its 1989 level by a third, the result of a massive shakeout. The less advanced reformers in the NIS have yet to pass through this stage, while the countries subject to regional tensions have seen particularly large output losses—even though these are overestimated, as are those in other CEE countries and the NIS.<sup>3</sup>

<sup>3</sup>Output losses in this region also do not directly represent welfare losses, because part involves cutting the production of goods not wanted in a market system.

As also shown in Table 3, China has experienced major improvements in social indicators in the reform period, with life expectancy rising by over 2 years and an 11 point drop in infant mortality. Social indicators have improved too in the more advanced reformers in CEE, but China offers a very different picture from that in many of the NIS, where life expectancy and infant mortality have both deteriorated. Nevertheless, there is little room for complacency. As discussed in "Social Policies in Transition," the initial stage of China's reforms lifted almost 200 million people out of absolute poverty, but the rise in urban-rural differences and growing regional inequality have now weakened the link between growth and poverty reduction, leading to rising concern over the distribution of gains.

### PROPERTY RIGHTS AND ENTERPRISE REFORM

Extensive evidence from CEE and elsewhere indicates that most firms, whether state owned or private or something in between (as in the case of China's "nonstate" firms) make efforts to restructure if their avenues for rescue are firmly closed and competition increases. Most existing firms in CEE have been drastically downsized, and enterprise-level data show that declines in labor forces have typically been largest in those firms where output and sales have registered the sharpest declines.

China has not taken similarly dramatic steps to stem the flow of subsidies to firms, but a number of measures have been adopted to improve performance in its state sector, including management contracts, new accounting standards, shifting supervisory responsibility for many firms to the provinces, leasing, corporatization and the selling of minority shares on stock exchanges. The efficiency (as measured by total factor productivity) of some state firms has risen, but by how much is hotly debated—some studies suggest a modest improvement in the range of 2–3 percent a year while others argue against any improvement whatsoever. What is not disputed is that the improvements have been largest where enterprises have been most exposed to market incentives and competition, notably from a growing nonstate sector.

Overall, however, the number of unprofitable state firms has been rising in China. Many face onerous problems of excessive employment (according to some estimates, 20 percent of the labor force may be surplus to current needs; this number is comparable to the total increase in state sector employment that has taken place since 1978), unfunded pensions, and obligations to provide social services that they cannot afford. To the extent that growing losses arise from increased financial discipline, losses could be a mark of progress. Indeed, there are indications of tighter financial constraints on its state sector, and these will probably be strengthened by the shift of many firms to the supervisory authority of provincial-level governments which lack direct access to monetary financing.

But there are also other possible causes of mounting losses, including a steady increase in competition and the likelihood—as suggested by much experience in CEE and the NIS—that in transition countries assets and earnings in a large state sector tend to be increasingly diverted into private hands after the private econ-



omy becomes legitimate, even (as in China) without formal programs of privatization. China does not face the same urgency in addressing privatization as countries in CEE and the NIS. The state sector is smaller, the extent of needed restructuring is probably also less, and its government has the capacity to exert tighter direct control and disposes of more resources. Yet, defining property rights in the state sector and allocating them to effective owners is one of the major challenges facing China in the next stage of its reforms. So is delinking employee benefits from enterprises, to facilitate downsizing (see the next section).

A distinctive set of enterprise issues concerns the "nonstate" sector, in particular the township and village enterprises (TVEs) owned by local governments and citizens of particular communities. Local governments act as holding companies for one type of TVE; another type, more recently developed, is closer to a private firm but maintains close fiscal ties to local government. The growth and performance of the TVEs have been extraordinary. Their share in GDP rose from 13 percent in 1985 to 31 percent in 1994 as they created 95 million new jobs. The nonstate share of industrial output rose from 22 percent in 1978 to a startling 66 percent in 1995. Capital-labor ratios in collective industry are only a quarter of those in the state sector, yet labor productivity is close to 80 percent of the state level and rising at 10 percent a year. Total factor productivity is therefore higher and also seems to be growing more rapidly outside the state sector.

Several factors explain this remarkable record. Property rights, though fuzzy by Western standards, are implicitly defined as benefits accrue to relatively stable local communities where individuals are often related through kinship. The 1984 decentralization of fiscal power allowed subnational governments to retain locally-generated revenues, creating powerful incentives to limit the drain of persistent lossmakers on local budgets; in addition, the TVEs and their communal governments confront intense competition for investment (including for foreign investment) where opportunities are affected by reputation and local economic performance. Rural savings have been high, and there have been pressures to reinvest resources in communities. In addition many TVEs maintain close links with state enterprises, which provide a natural source of demand, technology and raw materials, while foreign investment from Hong Kong and Taiwan (China) plays a similar role for many others.

Nevertheless, TVEs too will need to evolve as economic reforms progress. As their demands for finance increase against the backdrop of a more commercial banking sector, and as people become more mobile outside their traditional communities, the TVEs' limited and implicit property rights will need to be better defined and made more transferable. Recent studies suggest that there are already pressures in this direction in some localities.

#### SOCIAL POLICIES IN TRANSITION

Four factors have been important in influencing living standards and the direction of social policy reform in transition countries: the widening distribution of income and wealth, economic growth (or the absence thereof), increased labor mobility, and the different im-

pect of the transition on old and young. In its urban centers, China faces many similar issues to countries in CEE and the NIS, but it also faces a challenge in the need to sustain critical services in poor rural areas.

In CEE and the NIS, a combination of negative growth and increasing income dispersion has resulted in a sharply increasing incidence of poverty, even though many have gained from economic reforms, including through the availability of high-quality consumer goods. In China, the interaction between growth, inequality and poverty has been rather different. Urban-rural differences in income levels have long been substantial. The initial phase of reform in 1978–94, largely focused on the rural economy, led to both high growth and declining income inequality, and lifted some 200 million people out of absolute poverty. But after 1985, as reforms shifted to the industrial urban economy, the urban-rural disparities increased and income inequality rose markedly. Despite a doubling in the size of the economy between 1985 and 1993, the poverty headcount (as defined by the numbers below a poverty line of \$18 per person per month) actually rose by an estimated 1 per cent.

Most of China's poor are concentrated in remote resource-deficient rural areas, and about half of the children in absolutely poor households are at least mildly malnourished. Many of the rural poor would face starvation without the highly effective grain relief system, and it is essential that this survives transition. The provision of social services has stagnated in poor areas, where educational achievement is often deplorable. In the poorest communities, half the boys and most of the girls do not attend school. And recent analysis suggests that China may be falling behind in health care despite impressive past achievements, in part because the previous system of setting aside a share of rural communal production to finance essential services has broken down, with adverse effects in poor areas.

Coping with regional differences is therefore an important challenge for reforms. Income disparities within regions and cities in China has remained relatively low, but the southeastern coastal region, for example, has been growing twice as fast as populous central China. In addition to the emergence of previously repressed comparative advantage, trade and investment policies overwhelmingly favored the coastal provinces, and the decentralization of the fiscal budget reduced transfers from wealthier to poor areas. Investment rates in the coastal areas have been four times higher than in poor areas. In response, the Chinese government has moved to equalize the treatment of different regions and to reinforce central revenue capabilities with the 1994 tax reforms.

But given China's outward-oriented strategy, the natural advantages of the south remain, and unofficial migration—in the form of a "floating population" which numbers 20 to 25 percent of the population of most cities and is also large in some rural areas, continues to respond. This floating population is not covered by the state social security system, and is increasingly de-linked from traditional rural support systems based on membership in a stable community. Also not included in the state system are some 100 million workers in rural industry.

Migration from poor areas also has implications for the adjustment of the state sector, as it is likely to continue to exert downward pressure on pay in most of the nonstate sector. Because of this, growing employment opportunities in the nonstate sector are not sufficient to pull surplus labor out of the state sector, where overall remuneration, including benefits, is at least 60 percent higher. Active measures will therefore be needed to facilitate the downsizing of state sector employment. These include delinking benefits from enterprises; unlike the situation in the NIS, China's enterprises are not only responsible for administering a wide range of employee benefits but for financing them as well. The burden is therefore unequally distributed, with older enterprises with more retirees typically facing a higher range of costs.

Increased labor mobility is therefore a particularly critical element of transition for social policies in China, as regards both the state and the nonstate sectors. Both restricted mobility and completely free movement have costs, the former in lost opportunities for beneficial migration, the latter in strains on urban infrastructure, the breakdown of rural communities and the danger of creating an urban underclass. But the present situation in China is unambiguously bad—mobility exists in practice, but social policies and institutions, including the state pension system, are based on the assumption that it does not.

Future social reforms therefore involve a massive—and politically very difficult—policy agenda. There is broad agreement, for example, that a unified system of pensions, including rules for adjusting benefits for inflation, should cover all urban enterprises, whether state or private. Benefit administration and delivery need to be shifted away from the enterprises, the retirement age needs to be raised, and a well-defined structure of contributions needs to be introduced. There has also been some initial discussion of whether enterprises could attempt to offset pension obligations with certain of their assets. Housing, for example, represents a very large store of value in a market economy, and 80 percent of urban housing in China is owned by enterprises. Could firms borrow against such assets to fund social obligations, repaying the loans by auctioning off the properties on the death of the occupants? Reforms in these areas, and more generally, in the sphere of social policies, are still at a very early stage.

#### LOOKING AHEAD: THE AGENDA FOR REFORM

Transition countries face different critical reform agendas, depending on the stage of their development and their reforms. Economic liberalization and macroeconomic stabilization have been largely accomplished in the more advanced reformers in Central Europe for example. These countries now need to harmonize their institutions with the EU in preparation for accession, and to effect a realignment of the state, which still accounts for half of their economies. This will involve tackling very costly social expenditures.

The less advanced reformers in the NIS are still grappling with the process of consolidating financial discipline. Some also face serious problems of corruption and organized crime, and need to

move towards a more effective rule of law, as well as to strengthen social safety nets if deep poverty is not to become institutionalized.

The next stage of reform in China will be more complex and difficult than past efforts, as it requires tackling reform of the state and financial sectors and the institutional underpinnings of the economy. Maintaining growth and avoiding a deterioration in distribution are important goals, both because China is still a poor country, and to sustain support for reforms. This requires improving the efficiency with which savings are allocated, and, in parallel, developing better tools of indirect macroeconomic management, because direct measures will become increasingly less effective as the degree of economic liberalization increases. Continuing fiscal reforms are a high priority; so is raising capacity in the banking and legal systems and anticipating the need to deal with the many problem clients that will emerge as the banks become more market-oriented. A clear definition of the role and scope of the state sector is called for, and this will almost certainly involve reducing its size. Also important are measures to encourage effective corporate governance and accountability in state, nonstate and private firms. Social policy reforms should focus on broadening access to key services and improving their quality. And disentangling social benefits from state enterprise finances is an essential key to unlock further reforms.

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# CHINA: ECONOMIC PROSPECTS TO 2010

By Virendra Singh and Narendra Singh \*

## CONTENTS

	Page
Introduction and Summary .....	101
Recent Developments .....	102
Policy Developments .....	104
Political Developments .....	105
Global Outlook .....	106
Policy Outlook .....	107
Economic Outlook .....	110
China Macroeconomic Model .....	113
Statistical Notes .....	113
Tabular Notes .....	113

## TABLES

Table 1. China Summary .....	114
Table 2. National Income Accounts (1991-2000) .....	116
Table 3. National Income Accounts (2001-2010) .....	118
Table 4. External Sector (1991-2000) .....	120
Table 5. External Sector (2001-2010) .....	122

## INTRODUCTION AND SUMMARY

China, with double digit real growth, a rapidly expanding manufacturing sector and an enormous consumer base, is rapidly emerging as a major global economic power. Driven by large infusions of foreign investment and a government convinced that the next century belongs to China, but constrained by sometimes painfully slow economic reforms, our baseline projection indicates that China is expected to almost triple its economy by 2010 to \$2.3 trillion real GDP (in 1990 US\$) from \$633.7 billion in 1995. Real per-capita GDP will increase three-fold, from \$521.80 to \$1,635 in 2010. Nominal merchandise exports will surge from \$126.5 billion in 1995 to \$953.2 billion in 2010. Imports will rise at a slightly faster pace, increasing from \$108.8 billion in 1995 to \$966.4 billion in 2010.

But strains due to the clash of an emerging market economy with an authoritarian political regime and a command and control policy formulation system are already evident. The resolution of the contradiction between centralized control and a free-wheeling market system, both at the regional and the national levels, will eventually determine the future of China. Along with economic develop-

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ment and the expansion of the market system, centrifugal decision making tendencies have been strengthened. The Ninth Five-Year Plan implicitly recognizes these developments and recommends a number of remedies to counter centrifugal tendencies. The plan proposes to further strengthen the political, cultural and social control of the Communist Party without stifling the emerging market based allocation of resources. To resolve the conflict between the political and market systems, the government proposes the creation of 'socialist market system,' a system of market based enterprises which while optimizing their individual profits and asset values also maximize social welfare. The government is projected to move away from its current pervasive role in the economy to one where it ensures distributive justice. But demands for political reforms are expected to strengthen as the economy develops and an increasingly prosperous middle class seeks political and cultural plurality and a greater role in determining the future of the country. Past experience suggests that the Chinese economy is very sensitive to any signs of political upheaval and it will continue to remain so. Political instability, short of a major change in the political structure, is unlikely to have a major impact on the long-term growth trajectory of the economy.

#### RECENT DEVELOPMENTS

China's macro-management of the economy towards a soft landing has shown clear signs of success over the past one year. While inflation appears to be under control, the economy continues to exhibit broad-based growth. Trade growth remains robust and capital inflows are at an all time high. However, recent economic indicators point towards the limitations of command macro-management of an economy rapidly moving towards a free market.

China's tight credit policy is clearly working as retail price inflation fell to 7.7% in the first quarter of 1996 from an average of 16.7% last year and 24.1% in 1994. Meanwhile, the official target for inflation for 1995 was also achieved. The State Statistical Bureau (SSB) estimates that retail price inflation subsided to 14.8% for 1995, 0.2% below the official target of 15%, and down significantly from 21.7% in 1994. Consumer price inflation slowed to 16.7% during 1995, compared with 24.1% in 1994.

All along China has maintained a sound momentum in the expansion of the overall economy. The SSB estimates that the country's real GDP grew 10.2% in 1995, a tad slower than the 11.8% registered in 1994. The year 1995 was the fourth straight year that the Chinese economy posted double-digit growth. Agricultural output increased 4.5% to 1.1 trillion Yuan, aided by a record grain harvest of more than 460 million tones. Industrial production was up an impressive 13.4% in 1995 though significantly lower than the 18% in 1994 due to tight liquidity. Recent figures indicate that industrial production has picked up once again, with constant Yuan value added output up by 15.6% in January-April 1996 over the corresponding period a year ago.

As for the balance of payments, the country reported US\$35 billion of foreign investment and a nearly US\$20 billion trade surplus in 1995, both historically high levels. As a result, China's foreign reserves surged to above US\$75 billion at the end of the 1995, and

consequently the Chinese Yuan steadily appreciated to Yuan/US\$ 8.32 in December 1995 from Yuan/US\$ 8.42 at the beginning of last year.

But recent figures indicate that though inflation may have subsided, the huge disparity between managed internal prices and world market prices will continue to exert upward pressure on domestic prices. With reform of state owned enterprises on a back burner, year-on-year consumer inflation has stalled in the upper 9% range since the beginning of the year and relaxation of credit policy in May could lead to another bout of inflation during the latter half of 1996. More telling is the severe export slump in recent months. After strong growth through most of last year, aided by an appreciating Yuan nominal exports in the first quarter fell by 7.2% in January-May 1996 over the same period a year ago, the first sustained decline since 1993, whereas imports grew by 14.6% during the same period, leading to a cumulative trade deficit of \$0.5 billion since the beginning of the year.

A number of factors appear to be contributing to the decline in exports. Deteriorating relations with Taiwan and the US were already having an impact on sales to those markets last fall and may have further undermined exports during the first quarter as tensions escalated. The strength of the US dollar, against which the Chinese Yuan has appreciated slightly, has also had an impact on sales to Japan and Europe. But short-term trends in Chinese exports have historically been most closely associated with developments in the domestic market.

As the domestic economy heats up some exporters shift their attention to the domestic market and others have difficulty finding local inputs for their exports. The fall in exports in the first quarter is most likely due to unexpectedly strong domestic demand, demand that has stalled the decline in inflation and might presage more rapid growth and renewed inflationary pressures. Some indication of this is apparent from quarterly GDP statistics which show 10.9% growth in the fourth quarter last year after 8.9% growth in the third quarter.

This perspective on the fall in nominal exports is supported by import data. While exports grew by a stunning 45.5% in the first half of last year and then decelerated dramatically to finish the year with 23.4% growth, import growth remained steady and averaged 14.2% for the year. In the first quarter of this year import growth accelerated to 22.9%, leading to a first quarter (fob-CIF) trade deficit of \$1.2 billion. The deficit compares with a remarkable \$7.10 billion surplus registered in the first quarter of last year leading to a \$16.7 billion annual trade surplus. While last year's record surplus was supported by weak domestic demand and was clearly inappropriate given the huge capital inflows into China, the speed with which the trade accounts have turned into deficit is surprising and indicative of China's continuing problems with managing the macroeconomy.

Despite the nascent trade deficit problem, China has followed through on promises made last November to cut tariffs this year. Starting April 1, China began cutting tariffs on nearly 5,000 types of the approximately 6,000 types of goods that China imports. China claims the cuts, which average 35.9%, will reduce the nomi-

nal average tariff rate from 35% to about 23%. Promised in the wake of last year's record trade surplus and huge run-up in foreign exchange reserves, the cuts preclude any rapid recovery from the first quarter trade deficit. Indeed the first quarter deficit would likely have been far higher but import growth decelerated in March as importers awaited the tariff cuts.

In another sign of faster than expected growth, collective industry in January grew by 18.2% compared to 8.2% growth for state industry and 15.4% growth for private and foreign industry. In contractionary periods the gap between collective and state industry usually narrows as credit is restricted to state industry, while in expansionary periods the gap widens as collective industry is given a chance to exhibit its greater potential. The relative weakness of state industry is an ongoing problem. Though losses from state firms are a major drain on the budget, the government is reluctant to allow unprofitable firms to shed an estimated 24 million redundant workers and aggravate urban unemployment. Even without rapid reform of state industry, current projections call for an urban unemployment rate of 3.2% for 1996, up from 2.8% last year. These numbers exclude as many as 80 million rural migrants and perhaps another 100 million surplus laborers still located in rural areas.

After 34.4% growth in 1994, growth in M2 money decelerated over the course of last year and finished the year with 29.5% growth. This trend apparently continued into January which saw 25.9% M2 growth. While money supply growth is down somewhat, recent evidence of renewed strength in domestic demand suggests that it is still too high. Regarding interest rates, special inflation subsidies paid on long-term bank deposits were eliminated on new deposits starting April 1. The subsidies, equivalent to an extra 9% in interest, helped encourage savings and were crucial in preventing further overheating of the economy in recent years. At 13.5% for 3-year fixed deposits, savings rates are still competitive and in fact exceed subsidized lending rates in many cases.

#### POLICY DEVELOPMENTS

China's recently published Ninth Five-Year Plan (1996–2000) focuses on the two weak links in the economy, agricultural production and reform of the state-owned enterprises. The Ninth Five-Year Plan sets a target of 500 million tons of grain output at the end of the century up from 460 million tons in 1995, an ambitious target indeed given the limited supply of cultivable land. The much ballyhooed reform of state-owned enterprises (SOEs), another focus of the Ninth Five-Year Plan, has made little progress in the past years, lagging far behind reforms in other areas. The government aims to introduce major measures in 1996 to accelerate the pace of reform of the SOEs. However, the specific measures have yet to be announced.

In a significant step towards financial and banking reform, China launched its first nationwide inter-bank market in Shanghai in January 1996. The inter-bank market allows lending and borrowing of Renminbi funds between domestic banks on an overnight and short-term basis. Twenty-seven former short-term credit centers run by major Chinese banks and local governments were se-



lected as members of the inter-bank market. Foreign banks are excluded from the inter-bank market. The inter-bank market, integrating the domestic money market, is the first step towards market-driven interest rates. China has primarily relied on the administrative controls over bank loans to regulate the money supply. The establishment of an inter-bank market will provide the Chinese central bank with greater flexibility in conducting monetary policy.

Late in 1995, China announced a package of trade related reforms which cut import tariffs on a large number of items up to 30%, and sets a target for reducing the country's average tariff from the current 35% to about 22% within the next few years. The package would remove quotas and other import controls on 170 items, permit foreigners to set up joint ventures in retailing and foreign trade, and allow foreign companies to change currency at designated banks rather than at swap centers.

China recently announced that it aims to make the Renminbi convertible on the current account on July 1, 1996. Though this is not expected to have any immediate impact because conversion of currency, though cumbersome, is not much of a problem for foreign companies. At present China's foreign exchange regulations are among the strictest in the Asia Pacific regions. All foreign investors are required to maintain separate foreign exchange deposit accounts in a state approved bank. All foreign exchange receipts and disbursements must flow through these 'swap' accounts. Convertibility on the current account means that foreign owned companies will be able to repatriate profits without hindrance.

#### POLITICAL DEVELOPMENTS

President Jiang Zemin is gradually emerging as the dominant figure in Chinese collective leadership. President Zemin appears to have forged a tactical alliance with Premier Li Peng and Qiao Shi, the influential chairman of National People's Congress (NPC) Standing Committee, though he seems to be having some difficulty in asserting control over the Central Military Commission. With paramount leader Deng Xiaoping reportedly in a vegetative state, the first hint of a power struggle emerged during the March meeting of the NPC in Qiao Shi's back-handed criticism of Li Peng, later publicly repeated by Jiang Zemin in May. The public bickering acquires significance due to Jiang Zemin's recent embrace of ideological imperatives over economic pragmatism and indications that he may be pre-disposed towards accelerated reunification with Taiwan and vocal nationalism as demonstrated by an increasingly hard-line position in Tibet and Xinjiang province. The widely publicized and popular crackdown on official corruption, the increasing visibility of military political commissars and party activists, and the emphasis on "ideological, moral and cultural constructions," are all signs of Jiang consolidating power by tightening control at the subordinate level.

China's heavy-handed attempts to discourage the reelection of Taiwan's President Lee Teng-hui was as much a reflection of internal power struggle in the Communist Party as they were of a profound consternation regarding an independent and democratic Taiwan. Even if it were not to pursue independence from the mainland, a democratic Taiwan with a freely elected legislature and

president, would represent a serious challenge to the current political structure in China and undermine the established ideology assigning absolute supremacy to the Communist Party. It is, therefore, not surprising that the Chinese leadership closed ranks around President Jiang Zemin and named him as the "core leader" at the March meeting of the National Peoples Congress. Tensions with Taiwan are expected to abate as direct relations between the two countries, as proposed by President Lee Teng-hui, gradually open up, though occasional flare ups cannot be ruled out.

Underlying the ascendancy of ideology over pragmatism in China is the belief that the collapse of the Soviet Union, the emergence of nationalistic tendencies and the widespread disillusionment with economic reforms in Russia were a result of political liberalization initiated by Gorbachev. Like the Soviet Union, China too is a conglomeration of diverse religious and ethnic nationalities subject to the same centrifugal forces. The emergence of Islamic fundamentalism in the west, the possible collapse of North Korea, democratic reforms in Taiwan, the never-ending tensions with the US, the unsettled situation in Russia and the porous border in the south, are all viewed as a threat to national security by the Chinese leadership.

In the eyes of Chinese leadership, the history of economic and political reforms in the Soviet Union vindicates their policy of cautious economic liberalization combined with political authoritarianism. This stance of the Chinese Communist Party is unlikely to change and China is expected to remain a centralized one-party state for the foreseeable future. To meet national security objectives, the development of a military industrial complex and the modernization of the People's Army will continue to be a top priority.

Sino-US relations will continue to be unsettled. China is unlikely to accede to US demands on human rights, transfer of nuclear technology and sales of armaments though it will likely compromise on intellectual property rights. China's sizable trade surplus will remain a bone of contention. However, heightened mutual suspicion is unlikely to affect trade and investment relations between the two countries since it will remain in the mutual geo-political and economic interests of the two countries not to ignite another cold war.

The economy will remain vulnerable to domestic political tensions. Any signs of domestic instability will impact fixed investments and will lower the long-term growth trajectory of the economy. Investment as a percent of GDP declined from 35% in 1988 to less than 25% in 1990 as a consequence of Tiananmen Square uprising. Our estimates show that in the absence of Tiananmen Square incident the level of real GDP would have been 1.3%–1.5% higher in 1995.

#### GLOBAL OUTLOOK

The world's economies, particularly those in developed areas, are moving in different directions. The big trio, the U.S., Western Europe, and Japan, are dancing to three different tunes. Western Europe is moving to the slowest tempo. Inventory overhang and Maastricht-induced fiscal tightening, combined with the delayed

impact of a strong exchange rate, put Western Europe on shaky ground. Among the worst performers, Germany probably fell technically into a recession during the fourth quarter of 1995 and the first quarter of this year. In the US, real GDP growth rebounded at a 2.8% seasonally adjusted annualized rate (SAAR) during the first quarter of this year, from the weak 0.5% (SAAR) growth during the last quarter of 1995. First quarter growth was perceived as too strong to suit the market's tastes. However, if volatile real federal consumption and investment caused by budget impasses are excluded, real GDP grew 1.5% and 2.5% for 1995Q4 and 1996Q1, respectively, or 1.9% and 2.2% year-on-year. This growth would fit our scenario of a moderate pick-up. Japan, on the other hand, continues to outperform most analysts' expectations. The economy has definitely entered a strong recovery phase.

In the next twenty years, GDP growth in developed countries will be slower compared to the previous two decades (2.5% over 1996–2015 compared to 2.7% over 1976–95). The growth rate of individual developed countries will vary, but in general, countries with lower per capita income will grow faster than higher income countries. This "catch-up" phenomena is driven by a closing of the productivity gap between the leading countries and the followers.

Population growth will slow down in most of the OECD countries. The share of the aged in the total will rise; more so in Europe and Japan than in North America and Australia. The decline in working age population will be offset by rising female participation and higher productivity. At the same time, the employment shift from manufacturing to services will intensify. The inflation outlook in the coming decades is benign (2% to 3%) compared to the seventies and the eighties. In the EU, the program for nominal convergence (inflation and interest rates) and monetary union is likely to be completed by the end of the first decade of next century, later than planned. Based on inflation differential projections, a modest depreciation of the dollar versus DM and yen is assumed in the long-run.

More profound changes will occur in the developing world. GDP growth rates in the next two decades will exceed 5.5% per year compared to 3.5% in the previous two. Policy changes in this region will induce capital inflow and technology transfers from developed nations which, in turn, will increase productivity in the poorer countries. Population growth in the developing countries is slowing as well (from 2.1% in the period 1976–95 to 1.6% in 1996–2015) and therefore growth in per capita GDP will be even more impressive.

#### POLICY OUTLOOK

Policy over the next 15 years is broadly outlined in the Ninth Five-Year Plan for National Economic and Social Development (1996–2000) and the Long-Term Target for the Year 2010 which were adopted by the National People's Congress in March of this year. Significantly, the NPC's session coincided with the Taiwan strait crisis. With attention focused on Taiwan, the central leadership had little trouble chaperoning the two documents through the NPC. The provinces, in spirit of unity, all fell in line. The proposals focus on policy priorities in agriculture, state owned enterprise re-

form, the services sector, infrastructure investment, and science and technology. However, competing economic, political and social forces will inject a dose of reality into the lofty goals of the two documents. Rising unemployment, rapid urbanization and widening income disparity are likely to temper state enterprise reform and expenditure on science and technology. However, expansion of agriculture, key infrastructure investments and the reform of the services sectors will be carried through.

The central leadership's emphasis on ideology over pragmatism will tend to slow the pace of change in policy. Radical new market oriented initiatives are unlikely when consensus is at a premium. Reforms in the state-owned enterprises (SOE) industrial sector will be agonizingly slow. The fear of widespread unemployment and ensuing social instability will be the main determinants of the pace of overhaul and re-structuring of SOEs. The gap between policy and implementation will be narrower in finance and services, where the status quo proponents have a smaller constituency.

The recent re-centralization thrust notwithstanding, as exemplified most recently in the appointment of more compliant governors to the provinces of Guangdong and Sichuan, the authority of the central government will erode gradually over the forecast horizon. Economically prosperous regions will wield increasing influence and locally inspired economic and investment initiatives in contravention to central policy will remain a significant part of the regional landscape. There are already indications that the regions are once more setting growth targets higher than the government's declared real GDP target of 8% for 1996. The tendency towards re-centralization is expected to ebb as Jiang Zemin consolidates control and the power struggle in Beijing abates. The gap between policy and implementation will not widen during the next few years, though it is unlikely to narrow either.

The Ninth Five-Year Plan places agriculture on the center stage after years of neglect. In line with population growth and increasing prosperity, the plan sets a goal of 500 million tons of grain output for 2000. The plan emphasizes the need to improve yields, expand utilization of underdeveloped land, reclaim fallow land, and introduce new technologies. In pursuit of policy goals, the People's Bank of China announced in January that agriculture, along with major infrastructure projects, will be a lending priority for state banks. The plan also proposes revamping of the cooperative credit systems and introduction of new agricultural insurance companies. However, regional analysis raises doubts about the viability of production targets. For example, the province of Heilongjiang proposes to double grain output from 25 million tons at present to 50 million tons by 2000, which does not appear to be realistic under the most favorable circumstances. We believe that a total grain output target of 490 million tons in 2000 is attainable if accompanied by prudent investments and increases in food prices with the increase passed back to the farmers.

Regional economic disparities between the coastal east and central and western China has increased dramatically since reforms were initiated in 1979. In 1995 the growth gap between the eastern seaboard regions and the interior was estimated to be over 7%. The widening regional disparity has received considerable at-

tention in the Ninth Five-Year Plan. The open door policy that welcomes overseas investment and foreign companies will continue albeit with new priorities. Concern over expanding regional disparity will lead to gradual erosion of preferential treatment of Special Economic Zones. The government envisages a number of fiscal means to encourage investment in the interior, an increased resource transfer from the east to the interior and a gradual shift of labor-intensive industries from the coastal regions to the interior. But a lack of transportation and communications infrastructure in the interior and the sheer momentum of economically developed coastal areas will be a major impediment towards regional equalization, and a growth gap is expected to persist through our forecast horizon. Further, the current policy of transferring resources to the interior to finance new expenditures will add to inflationary pressures, ensuring that the inflation differential between the poorer regions, which have traditionally experienced relatively higher rates of inflation, and the prosperous seaboard will be further aggravated.

The plan document pays special attention to infrastructure bottlenecks and proposes a number of measures to change poor foreign perception of the commercial environment in these areas. It is expected that foreign participation in transport, communications, power and energy, and airport construction will be stimulated further through incentives which will include limited operations of the projects.

The plan expects rapid urbanization to continue, and by 2010 50% of the population to be city dwellers. Housing demand is expected to increase concurrently and residential construction investment is expected to absorb 13–18% of total fixed investments. Urbanization and rapid growth are expected to create environmental and congestion problems. The government is negotiating with the World Bank and the Asian Development Bank for loans running into billions of dollars to relieve environmental and urban congestion problems. In addition, all projects are expected to focus on environmental cost and benefits. The plan envisages the current investment in environmental technology of 0.7–0.8% GDP to rise to 1.5% of GDP by 2010, though the document emphasizes that tangible economic gains have a higher priority during the Ninth Five-Year Plan.

The government expects to extend its nascent social security system to cover more than 80% of the urban population and 30% of the rural population by the end of the plan period. Rural-urban migration and reforms of the SOEs are expected to bring unemployment rates of as high as 7.5% by 2000 up from current figures of 3%, which incidentally, does not include the underemployed or those who are on government payroll without any work responsibilities. The government projects that in the year 2000, over 278 million workers will be either out of work or will need to be re-trained to meet the demands of burgeoning industry. The reluctance to push reforms of inefficient and money-losing SOEs and an expanding social net are expected to have a profound impact on government spending, and even though revenues are expected to expand primarily due to a booming economy, the danger of a rising fiscal deficit cannot be ruled out.

Comprehensive restructuring and reform of the financial sector, including the insurance industry, is expected to continue at an accelerated pace. The Ninth Five-Year Plan proposes to further consolidate the separation of monetary policy from commercial banking activities and rationalize savings and loans systems in rural and urban areas. Participation of foreign financial institutions will be expanded over the five-year plan. It is expected that foreign exchange transactions of foreign-funded enterprises will be fully integrated into the banking system's exchange mechanisms, and the Renminbi is expected to become convertible on the current account by the end of 1997. Inter-bank operations are to be liberalized and interest rates decontrolled. But the plan also envisages continuation and strengthening of government control and supervision of the financial sector.

The government is expected to follow a prudent monetary policy with the aim of keeping inflation under control and the Renminbi stable. Inflationary pressures are expected primarily from the gradual de-control of administered prices. The five-year plan proposes a tight credit policy with the aim of keeping inflation below the growth rate of real GDP and predicts an annual average growth rate of 18% for narrow money and 23% broad money. We expect that monetary policy will be fashioned in response to the twin needs of high growth to meet social aspirations and to prevent the economy from over-heating. The central bank has proved itself adept at controlling inflation by following a tight money policy over the last two years. However, the central bank has yet to prove that it can manage a relaxed credit policy without re-igniting inflation. Current investment plans for the agricultural and infrastructure sectors will require significant cash injections. State loans for 1996 are projected to rise by 30%. Further relaxation in credit is expected after China enters the WTO, at present projected for 1997, when state-sector modernization pressures increase under threat of competition to domestic industry. We expect credit policy to remain under strict scrutiny all through the forecast period, though occasional relaxation is expected under domestic pressures. We expect the central bank to yield to such pressures when inflation appears under control as well as when it appears that the tight credit policy threatens broader macro goals.

#### ECONOMIC OUTLOOK

Starting from a very low base of economic development, the Chinese economy contains all the ingredients for sustained high growth over the next few decades. A high rate of literacy, low growth of population and continued rural-urban migration will ensure the supply of motivated and skilled pool of labor without igniting a wage-price inflation spiral. Though growth will be primarily driven by expanding production and integration of the economy in the global economy, rising incomes driven by productivity growth at an average of 5% per year and an increasing consumer base will gradually increase in importance. Foreign investment and technology will continue to play a critical role in supplementing domestic savings to fuel the high rate of growth. In the short-run, regional concentration of industries and a creaky infrastructure may prove to be a constraint on growth. But the government's deter-

mination to spread development across all regions and its commitment to modernize infrastructure will ease these bottlenecks over the long-run. Over the long-run declining population and productivity growth will gradually pull the overall economy towards long-term balanced growth. But given the low base, the economy will continue to exhibit high real growth within our forecast horizon.

After impressive double digit increases from 1990 to 1995, real GDP is expected to grow at a more moderate and manageable average rate of 9.4% during the next five years, somewhat higher than the projection of 8–9% in the Ninth Five-Year Plan. Per-capita real GDP is expected to reach \$991 by 2000, up 56% over 1995. Domestic savings supplemented by foreign direct investment flow will fuel the burgeoning economy. Foreign investment is unlikely to reach 1995's \$34.6 billion level but probably will average \$18.8 billion to 2000 and \$18.7 billion per year to 2010. Large-scale public investment in agriculture and infrastructure is expected to play a significant role in boosting GDP. Real fixed investment is expected to grow by an average of 11.2% per year during 1996–2000 compared with 24.2% per year from 1990 to 1995. The growth in investment will further moderate in subsequent years, averaging 9.4% per year from 1996 to 2010, largely due to declining investments in infrastructure projects and moderation of foreign investment flows in later years.

Increasing prosperity reflected in an annual average growth in real per-capita GDP of 8.3% will drive up personal consumption at an average rate of 8.7% per year from 1995–2000. Personal consumption is projected to grow at faster rate of 9.7% from 2000–2005, as rising incomes results in higher purchases of durable household items, before moderating to 8.1% from 2005–2010. The overall domestic savings rate is expected to hover in the range of 38%–40% all the way through to 2010.

Rising government expenditure due to an expanding social security net and policy induced spending on SOEs will keep government consumption buoyant, despite increasing deficit necessitating large-scale issuance of government debt. Managing the macroeconomy has proven to be an extremely difficult task for China throughout the reform period and it will continue to be so. The government's reliance on credit control and bureaucratic fiat as the primary means of controlling the economy will prove increasingly ineffective. The government is expected to come through with its reforms package for SOEs but the actual implementation will prove to be a painfully slow process due to social and political impediments. Public consumption will grow at an annual average rate of nearly 10% from 1996–2010. Rising government spending will be supplemented by increasing revenues as more people move above the zero-tax threshold and due to removal of tax exemptions and subsidies on industrial and commercial enterprises, though tariff reductions on imports under WTO rules will offset improved revenue flows. However, commitments under the Ninth Five-Year Plan will offset any revenue increase due to an expanding economy, and public consumption is expected to increase 10.9% per year from 1996 to 2000.

Trade will continue to grow rapidly through our forecast period. Merchandise exports (nominal dollars) will grow at 16.3% from

1996–2000, slowing down in later years due to an expanding internal market, and average 14.4% over the 1996–2010 period. Increasing competition from low cost producers like Vietnam and Myanmar will play a role in moderating export growth. Exports will continue to be dominated by industrial consumer goods though capital exports and high value-added items will gradually increase in importance. Imports will grow faster than exports throughout our forecast period largely to satisfy increasing demand for capital goods and fuel. Although trade with the US, Japan and the EU will continue to expand, trade with other APEC countries, Africa and Latin America will improve significantly as China will look for new markets for its exports and new sources for food, raw materials and industrial commodities to fuel its expanding economy. Tariffs on imports will be lowered selectively with most of the reductions targeted on intermediate inputs and capital goods. China will maintain a trade surplus throughout our forecast period but exports and imports will gradually converge, with a small deficit expected by the year 2010.

The primary determinant of inflation will be the government's commitment to gradually decontrol all prices. As a result, we expect inflation rate to rise during periods of price de-control and drop when the central bank tightens credit and the government steps in to temporarily freeze prices in response to rising inflation. 'Yo-yo' inflation credit controls and price freezes will play a key role in curbing inflation. The Ninth Five-Year Plan commits the central bank to restrain money supply growth. However, the plan's commitments to agriculture and infrastructure, as well as political pressure to selectively ease credit to the heavily indebted state sector will place obstacles towards meeting monetary goals. Controlled grain and food prices will rise towards competitive market levels, as increased returns on investments are necessary to revitalize the rural economy. Transportation and electricity prices are expected to rise as well to make these sectors attractive to investors. We expect inflation to remain in double digits through the five-year plan period, moving up in periods of easy credit and then down as the central bank tightens credit. Average growth of consumer inflation will be 10.3% in 1996–2010. In 1996–2000, the average consumer inflation will be 12.6%, declining to 10.5% in 2000–2005, and then down to 8% in 2005–2010, as controlled prices gradually move towards free market levels.

With sufficient foreign reserves, which stood at \$75.4 billion at the end of 1995, the central bank is expected to protect the Renminbi from market driven volatility. Backed by increasing reserves, the move to current account convertibility is not expected to exert any significant pressure on the Renminbi. Any trend towards appreciation due to increasing reserves will be counteracted by the central bank to preserve the competitiveness of Chinese exports. The Renminbi is expected to depreciate along at a rate determined by the US-Chinese inflation differential, while the real exchange rate is expected to appreciate marginally over the forecast period. Convertibility on the capital account is not expected over the next five years, but is expected in 2005. China lacks adequate financial infrastructure to implement capital convertibility and the political leadership is unlikely to expose the economy to foreign



capital without some measure of control. The absorption of Hong Kong will be an important catalyst towards full capital convertibility. But even then, the path towards full capital convertibility is expected to be gradual.

The services account will show a small surplus over the next five years, largely due to an upsurge in tourism revenue. But a rising outflow of interest, profits and dividends is likely to keep the invisibles account in increasing deficit through 2000–2010.

Total foreign debt will rise over the forecast period but, due to rapid GDP growth, it will decline as a share of GDP. The government is expected to opt for foreign financing for infrastructure projects, selected enterprises, and the government deficit. Total foreign debt will increase from \$100.8 billion in 1995 to \$148.4 billion by 2010, most of it in the form of long term debt. The government is sensitive towards crowding investors in the domestic market and therefore is expected to eye overseas capital for most of its borrowings. China's exceptional trade performance and strong domestic growth will provide adequate cushion for the government to easily raise capital in foreign markets.

#### CHINA MACROECONOMIC MODEL

The macroeconomic model used to forecast the Chinese economy is a part of WEFA Group's World Model, a large system of inter-linked country models. The macro-models of each country in the system are linked together through trade and capital flows. The system ensures that besides aggregate markets clearing in each individual country, international flows of capital and commodities are also equalized.

#### STATISTICAL NOTES

Statistics are drawn mainly from Chinese government publications, including *Statistical Yearbook of China*, *China Monthly Statistics*, and *China's Customs Statistics*. Information from these publications is supplemented by the IMF's *International Financial Statistics*, Reuters News Service, Telerate News Service, and a variety of Chinese press sources.

#### TABULAR NOTES

The following tables show, respectively, a summary of various economic measures of the Chinese economy, 1985–2010; national income accounts, 1991–2000; national income accounts, 2001–2010; external sector, 1991–2000; and external sector, 2001–2010.

TABLE 1. China Summary.

Measure	5-Year Period					15-Year
	1985-90	1990-95	1995-00	2000-05	2005-10	1995-10
<b>National Income Accounts</b>						
Nominal GDP, US \$ (%) .....	4.95	11.18	15.88	10.49	8.18	11.47
Per Capita Nominal GDP, US\$ (%) .....	3.34	9.84	14.72	9.61	7.37	10.52
Real GDP (%) .....	7.77	11.38	9.37	8.93	8.23	8.84
Per Capita Real GDP (%) .....	6.12	10.05	8.27	8.06	7.42	7.92
<b>Real Expenditure</b>						
Domestic Demand (%) .....	4.71	15.38	10.05	9.17	8.30	9.17
Personal Consumption (%) .....	5.21	9.92	8.66	9.66	8.08	8.80
Public Consumption (%) .....	11.63	11.94	10.93	10.60	8.61	10.04
Gross Fixed Investment (%) .....	2.13	24.16	11.21	8.44	8.44	9.36
Exports of Goods and Services (%) .....	12.45	17.40	11.14	11.24	10.23	10.87
Imports of Goods and Services (%) .....	-1.91	18.90	12.39	11.63	10.30	11.44
<b>Aggregate Supply</b>						
Primary Sector (%) .....	4.18	3.65	4.17	4.32	4.17	4.22
Secondary Sector (%) .....	8.97	16.97	11.40	9.21	7.97	9.52
Tertiary Sector (%) .....	10.13	8.41	8.37	10.95	10.58	9.96
<b>Prices and Financial</b>						
Consumer Price Index (%) .....	10.56	12.81	12.56	10.47	8.02	10.33
GDP Price Deflator (%) .....	7.36	11.59	11.18	9.02	6.71	8.95
Money Supply, M1 (%) .....	18.36	26.90	23.19	19.23	15.87	19.39
Exchange Rate (Yuan/\$, Avg) .....	3.89	6.71	9.39	13.37	18.68	13.81
<b>Labor Market</b>						
Population (%) .....	1.55	1.21	1.01	0.81	0.75	0.86
Labor Force (%) .....	2.61	2.13	1.16	1.42	0.99	1.19
<b>Trade (Billion US\$)</b>						
Exports of Goods (%) .....	15.46	19.68	16.35	15.16	11.77	14.41

Machinery and Equipment (%) .....	48.57	38.86	19.67	17.79	12.44	16.59
Fuels (%) .....	-5.99	-3.09	-1.79	-2.11	-4.99	-2.98
Food (%) .....	11.69	7.75	2.39	6.18	6.80	5.10
Non-Food & Raw Material (%) .....	5.92	11.12	6.10	11.91	10.78	9.57
Industrial Consumer Goods (%) .....	23.23	20.50	17.80	14.96	11.82	14.83
Imports of Goods (%) .....	2.07	20.76	19.18	15.67	12.28	15.67
Machinery and Equipment (%) .....	0.74	30.21	21.95	15.43	13.02	16.74
Fuels (%) .....	49.21	22.44	19.89	16.63	12.80	16.40
Food (%) .....	16.52	12.54	19.12	17.17	11.06	15.73
Non-Food & Raw Material (%) .....	4.88	23.98	14.10	18.98	10.52	14.48
Industrial Consumer Goods (%) .....	-0.28	7.56	13.31	14.01	10.62	12.64
Trade Balance as % of GDP (Avg) .....	-0.81	1.17	0.85	0.19	-0.10	0.32
Services (Billion US\$)						
Exports of Services (%) .....	14.37	22.56	20.49	15.01	12.03	15.79
Imports of Services (%) .....	15.51	33.27	17.94	16.03	11.39	15.09
Service Balance as % of GDP (Avg) .....	0.48	0.03	0.04	-0.05	-0.04	-0.02
Net Transfer as % of GDP (Avg) .....	0.05	0.11	0.01	0.05	0.11	0.06
Current Account Balance as % of GDP .....	-0.28	1.31	0.90	0.19	-0.03	0.36
Capital Flows (Billion US\$)						
Net Direct Investment (Avg) .....	2.14	20.02	18.84	18.48	19.00	18.77
Net Portfolio Investment (Avg) .....	0.67	2.18	2.13	3.78	5.87	3.93
International Reserves (Avg) .....	18.77	42.99	112.48	161.60	237.78	170.62
Merchandise Import Cover .....	5.38	6.48	7.24	4.74	3.70	5.23
Average External Debt (Billion US\$)						
Total External Debt % of GDP (Avg) .....	11.21	16.32	11.80	8.04	5.40	8.41
Average Debt Service Ratio (Avg) .....	26.56	20.10	15.38	9.91	4.87	10.06

TABLE 2. National Income Accounts (1991–2000).

Measure	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Nominal GDP, Bn. US Dollars .....	379.24	441.79	544.61	486.44	627.89	740.83	876.32	1,031.53	1,179.44	1,312.16
Annual % Change .....	2.59	16.49	23.27	-10.68	29.08	17.99	18.29	17.71	14.34	11.25
Per Capita Nominal GDP .....	327.4	377.0	459.5	405.4	517.0	603.7	706.7	823.3	932.1	1,027.4
Annual % Change .....	1.27	15.15	21.87	-11.79	27.55	16.76	17.06	16.51	13.22	10.22
Real GDP, Bn. 1990 Dollars .....	399.24	453.52	514.31	575.00	633.65	692.52	757.89	831.86	909.73	991.42
Annual % Change .....	8.00	13.60	13.41	11.80	10.20	9.29	9.44	9.76	9.36	8.98
Per Capita Real GDP .....	344.7	387.1	434.0	479.2	521.8	564.3	611.2	663.9	719.0	776.3
Annual % Change .....	6.61	12.29	12.12	10.42	8.89	8.15	8.30	8.64	8.29	7.97
Billions of 1990 Yuan										
Nominal GDP, Bn. Yuan .....	2,018.83	2,436.29	3,138.03	4,192.44	5,243.78	6,303.87	7,694.72	9,505.97	11,598.00	13,935.33
Real GDP, Bn. 1990 Yuan .....	1,909.63	2,169.27	2,460.06	2,750.35	3,030.89	3,312.46	3,625.15	3,978.97	4,351.40	4,742.15
Aggregate Demand										
Domestic Demand .....	1,597.30	1,964.40	2,335.91	2,605.08	2,885.77	3,221.28	3,512.27	3,874.69	4,256.89	4,657.70
Personal Consumption .....	899.72	1,016.71	1,123.50	1,217.35	1,316.08	1,439.23	1,537.80	1,669.26	1,822.98	1,993.38
Public Consumption .....	170.08	198.48	219.69	238.36	256.76	290.21	317.62	351.25	389.42	431.24
Gross Fixed Investment .....	527.50	749.22	992.72	1,149.37	1,312.92	1,491.84	1,656.85	1,854.18	2,044.49	2,233.08
Net Exports of Goods & Services .....	50.02	33.00	-39.51	18.30	54.14	9.97	40.01	38.69	35.69	31.89
Exports of Goods & Services .....	352.45	408.61	440.89	551.86	665.87	721.83	817.46	911.79	1,017.87	1,128.91
Imports of Goods & Services .....	302.43	375.61	480.41	533.56	611.73	711.86	777.46	873.10	982.18	1,097.01
Aggregate Supply										
Primary Sector .....	513.54	537.74	559.32	578.33	600.31	621.17	642.62	674.09	705.27	736.40
Secondary Sector .....	874.77	1,065.36	1,282.60	1,497.94	1,689.68	1,885.37	2,116.50	2,367.35	2,626.73	2,898.44
Tertiary Sector .....	521.32	566.17	618.15	674.08	740.90	805.91	866.03	937.52	1,019.40	1,107.31
Annual Percentage Changes (1990 Yuan)										
Nominal GDP .....	14.2	20.7	28.8	33.6	25.1	20.2	22.1	23.5	22.0	20.2
Real GDP .....	8.0	13.6	13.4	11.8	10.2	9.3	9.4	9.8	9.4	9.0
Domestic Demand .....	13.2	23.0	18.9	11.5	10.8	11.6	9.0	10.3	9.9	9.4
Personal Consumption .....	9.7	13.0	10.5	8.4	8.1	9.4	6.8	8.5	9.2	9.3
Public Consumption .....	16.4	16.7	10.7	8.5	7.7	13.0	9.4	10.6	10.9	10.7
Gross Fixed Investment .....	18.6	42.0	32.5	15.8	14.2	13.6	11.1	11.9	10.3	9.2
Exports of Goods & Services .....	18.0	15.9	7.9	25.2	20.7	8.4	13.2	11.5	11.6	10.9

Imports of Goods & Services .....	17.5	24.2	27.9	11.1	14.7	16.4	9.2	12.3	12.5	11.7
Primary Sector .....	2.4	4.7	4.0	3.4	3.8	3.5	3.5	4.9	4.6	4.4
Secondary Sector .....	13.4	21.8	20.4	16.8	12.8	11.6	12.3	11.9	11.0	10.3
Tertiary Sector .....	5.4	8.6	9.2	9.0	9.9	8.8	7.5	8.3	8.7	8.6
Prices: 1990 = 100										
Consumer Price Index .....	103.39	109.99	126.15	156.55	182.70	201.88	228.53	261.66	295.94	330.09
Annual % Changes .....	3.4	6.4	14.7	24.1	16.7	10.5	13.2	14.5	13.1	11.5
Retail Price Index .....	102.89	108.48	122.78	149.43	171.55	190.76	215.74	246.09	277.02	307.24
Annual % Changes .....	2.89	5.43	13.19	21.70	14.80	11.20	13.09	14.07	12.57	10.91
Implicit GDP Deflator .....	105.72	112.31	127.56	152.43	173.01	190.31	212.26	238.91	266.54	293.86
Annual % Changes .....	5.7	6.2	13.6	19.5	13.5	10.0	11.5	12.6	11.6	10.3
Labor Sector										
Population, Mn. ....	1,158.23	1,171.71	1,185.17	1,200.00	1,214.40	1,227.20	1,240.10	1,252.91	1,265.34	1,277.17
Annual % Change .....	1.3	1.2	1.1	1.3	1.2	1.1	1.1	1.0	1.0	0.9
Labor Force, Mn. ....	583.60	594.32	606.21	618.27	630.42	637.38	644.37	651.59	659.32	667.75
Annual % Change .....	2.9	1.8	2.0	2.0	2.0	1.1	1.1	1.1	1.2	1.3
Money Supply, M1 (Bn. Yuan) .....	898.78	1,171.43	1,424.42	1,858.16	2,306.34	2,888.05	3,530.32	4,374.37	5,392.86	6,544.32
Annual % Change .....	28.2	30.3	21.6	30.5	24.1	25.2	22.2	23.9	23.3	21.4
Exchange Rate, Ann. Avg., Yuan/US\$ .....	5.32	5.51	5.76	8.62	8.35	8.51	8.78	9.22	9.83	10.62
Annual % Change .....	11.3	3.6	4.5	49.6	-3.1	1.9	3.2	5.0	6.7	8.0

TABLE 3. National Income Accounts (2001–2010).

Measure	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nominal GDP, Bn. US Dollars .....	1,428.92	1,565.43	1,734.31	1,951.96	2,160.98	2,341.60	2,533.84	2,740.40	2,969.09	3,201.95
Annual % Change .....	8.90	9.55	10.79	12.55	10.71	8.36	8.21	8.15	8.34	7.84
Per Capita Nominal GDP .....	1,109.1	1,205.1	1,324.6	1,479.3	1,625.3	1,747.9	1,877.2	2,015.1	2,167.0	2,319.5
Annual % Change .....	7.95	8.65	9.92	11.69	9.87	7.54	7.40	7.35	7.54	7.04
Real GDP, Bn. 1990 Dollars .....	1,076.98	1,171.43	1,277.56	1,395.73	1,520.79	1,648.84	1,781.08	1,925.53	2,084.19	2,258.22
Annual % Change .....	8.63	8.77	9.06	9.25	8.96	8.42	8.02	8.11	8.24	8.35
Per Capita Real GDP .....	835.9	901.8	975.7	1,057.8	1,143.8	1,230.8	1,319.5	1,415.9	1,521.2	1,635.9
Annual % Change .....	7.69	7.88	8.20	8.41	8.13	7.60	7.21	7.30	7.43	7.54
Billions of 1990 Yuan										
Nominal GDP, Bn. Yuan .....	16,461.82	19,517.39	23,229.63	27,789.82	32,919.15	38,435.18	44,389.64	50,955.97	58,609.06	67,630.07
Real GDP, Bn. 1990 Yuan .....	5,151.40	5,603.18	6,110.83	6,676.08	7,274.26	7,886.75	8,519.27	9,210.18	9,969.10	10,801.52
Aggregate Demand										
Domestic Demand .....	5,078.59	5,540.22	6,052.67	6,621.94	7,223.63	7,839.26	8,474.50	9,167.51	9,927.92	10,761.25
Personal Consumption .....	2,191.40	2,417.20	2,650.97	2,901.32	3,160.95	3,423.71	3,693.17	3,986.57	4,308.32	4,660.91
Public Consumption .....	479.24	533.65	590.15	650.69	713.63	777.58	843.30	914.74	992.96	1,078.57
Gross Fixed Investment .....	2,407.95	2,589.37	2,811.55	3,069.93	3,349.04	3,637.98	3,938.03	4,266.20	4,626.64	5,021.77
Net Exports of Goods & Services .....	25.98	21.20	20.81	20.69	20.74	20.91	21.23	21.80	22.66	23.81
Exports of Goods & Services .....	1,251.72	1,391.04	1,549.98	1,729.26	1,922.64	2,125.17	2,339.23	2,576.48	2,838.15	3,128.64
Imports of Goods & Services .....	1,225.73	1,369.84	1,529.18	1,708.57	1,901.90	2,104.26	2,318.00	2,554.68	2,815.49	3,104.83
Aggregate Supply										
Primary Sector .....	767.23	797.30	832.06	870.75	909.68	947.42	984.92	1,026.47	1,068.60	1,115.69
Secondary Sector .....	3,180.69	3,469.91	3,790.40	4,139.37	4,503.27	4,874.05	5,256.52	5,675.70	6,116.20	6,607.95
Tertiary Sector .....	1,203.48	1,335.97	1,488.38	1,665.96	1,861.30	2,065.28	2,277.83	2,508.01	2,784.30	3,077.88
Annual Percentage Changes (1990 Yuan)										
Nominal GDP .....	18.1	18.6	19.0	19.6	18.5	16.8	15.5	14.8	15.0	15.4
Real GDP .....	8.6	8.8	9.1	9.2	9.0	8.4	8.0	8.1	8.2	8.4
Domestic Demand .....	9.0	9.1	9.2	9.4	9.1	8.5	8.1	8.2	8.3	8.4
Personal Consumption .....	9.9	10.3	9.7	9.4	8.9	8.3	7.9	7.9	8.1	8.2
Public Consumption .....	11.1	11.4	10.6	10.3	9.7	9.0	8.5	8.5	8.6	8.6
Gross Fixed Investment .....	7.8	7.5	8.6	9.2	9.1	8.6	8.2	8.3	8.4	8.5
Exports of Goods & Services .....	10.9	11.1	11.4	11.6	11.2	10.5	10.1	10.1	10.2	10.2

Imports of Goods & Services .....	11.7	11.8	11.6	11.7	11.3	10.6	10.2	10.2	10.2	10.3
Primary Sector .....	4.2	3.9	4.4	4.7	4.5	4.1	4.0	4.2	4.1	4.4
Secondary Sector .....	9.7	9.1	9.2	9.2	8.8	8.2	7.8	8.0	7.8	8.0
Tertiary Sector .....	8.7	11.0	11.4	11.9	11.7	11.0	10.3	10.1	11.0	10.5
Prices: 1990 = 100										
Consumer Price Index .....	362.34	399.41	442.63	492.42	543.09	592.68	641.52	688.73	740.46	798.58
Annual % Changes .....	9.8	10.2	10.8	11.2	10.3	9.1	8.2	7.4	7.5	7.9
Retail Price Index .....	335.16	366.72	403.27	445.14	487.31	527.89	567.12	604.29	644.55	689.60
Annual % Changes .....	9.09	9.42	9.97	10.38	9.47	8.33	7.43	6.55	6.66	6.99
Implicit GDP Deflator .....	319.56	348.33	380.14	416.26	452.54	487.34	521.05	553.26	587.91	626.12
Annual % Changes .....	8.7	9.0	9.1	9.5	8.7	7.7	6.9	6.2	6.3	6.5
Labor Sector										
Population, Mn. ....	1,288.37	1,299.05	1,309.35	1,319.48	1,329.58	1,339.69	1,349.78	1,359.91	1,370.12	1,380.45
Annual % Change .....	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Labor Force, Mn. ....	677.01	686.99	697.29	707.32	716.65	725.11	732.79	739.82	746.46	752.88
Annual % Change .....	1.4	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9
Money Supply, M1 (Bn. Yuan) .....	7,808.12	9,274.69	11,050.02	13,235.41	15,765.90	18,518.14	21,491.13	24,784.90	28,535.43	32,934.24
Annual % Change .....	19.3	18.8	19.1	19.8	19.1	17.5	16.1	15.3	15.1	15.4
Exchange Rate, Ann. Avg., Yuan/US\$ .....	11.52	12.47	13.39	14.24	15.23	16.41	17.52	18.59	19.74	21.12
Annual % Change .....	8.5	8.2	7.4	6.3	7.0	7.7	6.7	6.1	6.2	7.0

TABLE 4. External Sector (1991–2000).

Measure	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Balance of Payments—Billions of U.S. Dollars										
Exports of Goods, FOB .....	58.92	69.57	75.66	102.56	126.52	133.63	165.37	197.34	233.12	269.76
Machinery & Equipment .....	7.15	13.22	15.11	20.65	28.85	30.25	38.59	47.70	58.96	70.81
Fuels .....	4.91	4.87	4.83	4.57	4.48	3.95	4.08	4.14	4.16	4.09
Food .....	7.23	8.35	8.13	9.33	9.60	8.51	9.23	9.76	10.39	10.80
Non-Food & Raw Materials .....	3.49	4.12	4.06	5.25	5.99	5.45	6.03	6.66	7.36	8.06
Industrial Consumer Goods .....	36.15	39.01	43.55	62.75	77.60	85.47	107.44	129.08	152.26	176.00
Imports of Goods, FOB .....	50.18	64.39	86.31	95.27	108.79	131.18	154.66	185.07	222.41	261.60
Machinery & Equipment .....	19.60	31.31	49.08	54.69	63.06	82.36	97.47	118.63	143.73	170.06
Fuels .....	2.11	3.57	4.03	3.39	3.50	3.77	4.85	5.93	7.30	8.67
Food .....	2.80	3.15	3.49	4.56	6.02	7.36	8.67	10.27	12.29	14.44
Non-Food & Raw Materials .....	5.00	5.98	7.95	10.58	12.03	12.65	14.89	16.85	19.97	23.27
Industrial Consumer Goods .....	20.66	20.37	21.78	22.05	24.18	25.04	28.78	33.39	39.13	45.16
Trade Balance, FOB-FOB .....	8.74	5.18	-10.65	7.29	17.73	2.45	10.71	12.28	10.71	8.16
Service Receipts .....	10.70	14.84	15.58	22.36	24.54	24.57	34.80	44.60	53.44	62.31
Service Payments .....	7.00	14.78	17.71	23.07	26.54	28.17	34.17	41.98	50.98	60.58
Services Balance .....	3.70	0.06	-2.13	-0.72	-2.00	-3.60	0.63	2.63	2.47	1.74
Unrequited Transfers, net .....	0.64	0.94	1.08	-0.04	-0.06	-0.03	0.03	0.11	0.22	0.34
Current Account Balance (1) .....	13.08	6.19	-11.70	6.53	15.67	-1.18	11.36	15.01	13.39	10.24
Net Direct Investment (2a) .....	3.45	7.16	23.11	31.79	34.59	30.15	26.70	12.66	12.48	12.20
Net Portfolio Investment (2b) .....	0.23	-0.06	3.05	3.54	4.11	3.44	2.45	1.49	1.46	1.79
Net Financing Requirement (3) .....	4.53	-7.14	-2.60	-2.31	-2.48	-0.92	-0.65	-0.77	-0.95	-0.83
Net Errors & Omissions (4) .....	-6.77	-8.21	-10.10	-9.10	-29.42	-22.07	-19.86	-18.07	-16.63	-15.46
Overall Balance (5=1+2a+2b+3+4) .....	14.54	-2.06	1.77	30.45	22.46	9.42	20.00	10.32	9.75	7.93
Net Financing Requirements .....	4.53	-7.14	-2.60	-2.31	-2.48	-0.92	-0.65	-0.77	-0.95	-0.83
Amortization Payments .....	11.09	15.50	16.21	20.53	17.05	23.08	27.29	30.74	34.86	38.93
Gross Financing Requirements .....	15.62	8.37	13.61	18.22	14.57	22.16	26.64	29.97	33.91	38.11
Intl. Reserves Excl. Gold .....	43.67	20.62	22.39	52.91	75.38	84.80	104.80	115.12	124.87	132.80
External Debt—Billions of U.S. Dollars										
Total External Debt .....	60.85	69.32	80.25	92.81	100.79	106.28	111.66	118.07	124.62	130.05
Long Term .....	50.55	58.47	66.25	82.39	85.35	87.41	90.10	93.11	96.27	99.48



Short Term .....	10.30	10.85	14.01	10.42	15.44	18.87	21.56	24.96	28.35	30.57
Total Interest Payments .....	3.65	3.52	3.53	4.82	5.39	6.11	4.80	5.44	5.29	5.80
Long Term .....	2.95	2.82	2.82	3.88	4.00	4.79	3.62	4.16	3.88	4.27
Short Term .....	0.71	0.70	0.71	0.94	1.39	1.31	1.18	1.27	1.41	1.53
Total Principal Payments .....	11.09	15.50	16.21	20.53	17.05	23.08	27.29	30.74	34.86	38.93
Long Term .....	4.32	5.20	5.36	6.52	6.64	7.64	8.42	9.18	9.90	10.58
Short Term .....	6.77	10.30	10.85	14.01	10.42	15.44	18.87	21.56	24.96	28.35
Long Term Debt Service Ratio (%) .....	10.4	9.5	9.0	8.3	7.0	7.9	6.0	5.5	4.8	4.5
Total Debt Service Ratio (%) .....	21.2	22.5	21.6	20.3	14.9	18.4	16.0	15.0	14.0	13.5
Annual Percentage Changes										
Exports of Goods, FOB .....	14.4	18.1	8.8	35.6	23.4	5.6	23.8	19.3	18.1	15.7
Machinery & Equipment .....	27.9	84.9	14.3	36.7	39.7	4.8	27.6	23.6	23.6	20.1
Fuels .....	-6.2	-0.8	-0.8	-5.3	-2.1	-11.8	3.4	1.4	0.4	-1.6
Food .....	9.3	15.6	-2.7	14.8	2.9	-11.4	8.5	5.8	6.4	4.0
Non-Food & Raw Materials .....	-1.4	18.1	-1.5	29.5	14.1	-9.0	10.6	10.6	10.4	9.5
Industrial Consumer Goods .....	18.3	7.9	11.6	44.1	23.7	10.1	25.7	20.1	18.0	15.6
Imports of Goods, FOB .....	18.5	28.3	34.1	10.4	14.2	20.6	17.9	19.7	20.2	17.6
Machinery & Equipment .....	16.4	59.8	56.7	11.4	15.3	30.6	18.4	21.7	21.2	18.3
Fuels .....	66.2	68.9	12.8	-15.8	3.2	7.7	28.7	22.2	23.1	18.8
Food .....	-16.1	12.4	10.9	30.7	32.0	22.2	17.9	18.4	19.6	17.5
Non-Food & Raw Materials .....	21.8	19.6	32.8	33.1	13.7	5.1	17.7	13.2	18.5	16.5
Industrial Consumer Goods .....	23.0	-1.4	6.9	1.2	9.7	3.6	14.9	16.0	17.2	15.4
Service Receipts .....	20.6	38.8	5.0	43.5	9.7	0.1	41.7	28.2	19.8	16.6
Service Payments .....	10.9	111.2	19.8	30.3	15.0	6.1	21.3	22.8	21.4	18.8
Intl. Reserves Excl. Gold .....	47.6	-52.8	8.6	136.4	42.5	12.5	23.6	9.8	8.5	6.4
Merchandise Import Cover (Months) .....	10.4	3.8	3.1	6.7	8.3	7.8	8.1	7.5	6.7	6.1
Total External Debt, % of GDP .....	16.0	15.7	14.7	19.1	16.1	14.3	12.7	11.4	10.6	9.9

TABLE 5. External Sector (2001–2010).

Measure	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Balance of Payments—Billions of U.S. Dollars</b>										
Exports of Goods, FOB .....	309.72	355.27	410.27	476.14	546.36	618.76	694.06	774.40	859.82	953.19
Machinery & Equipment .....	84.21	99.67	117.92	138.94	160.55	182.92	206.41	231.69	258.79	288.61
Fuels .....	3.99	3.89	3.82	3.77	3.68	3.54	3.37	3.20	3.02	2.85
Food .....	11.33	11.93	12.68	13.64	14.58	15.44	16.40	17.54	18.84	20.26
Non-Food & Raw Materials .....	8.84	9.81	11.07	12.57	14.14	15.77	17.47	19.29	21.32	23.60
Industrial Consumer Goods .....	201.34	229.97	264.78	307.22	353.41	401.09	450.41	502.68	557.85	617.88
Imports of Goods, FOB .....	305.18	353.20	408.33	472.61	541.57	613.91	692.67	777.23	867.10	966.38
Machinery & Equipment .....	198.91	229.90	264.46	305.08	348.48	396.11	450.53	508.88	571.76	642.73
Fuels .....	10.28	12.06	14.05	16.30	18.71	21.21	23.94	27.12	30.39	34.16
Food .....	16.86	19.80	23.33	27.51	31.90	36.26	40.76	44.86	49.05	53.90
Non-Food & Raw Materials .....	27.26	32.49	39.22	47.00	55.49	63.20	69.95	77.34	84.82	91.49
Industrial Consumer Goods .....	51.88	58.95	67.28	76.71	86.99	97.12	107.49	119.02	131.07	144.09
Trade Balance, FOB-FOB .....	4.54	2.08	1.93	3.53	4.79	4.85	1.39	-2.83	-7.28	-13.19
Service Receipts .....	71.72	82.24	94.75	109.61	125.38	141.61	159.28	178.30	198.74	221.24
Service Payments .....	71.42	82.81	95.92	111.20	127.39	144.04	161.78	180.21	198.91	218.50
Services Balance .....	0.30	-0.58	-1.17	-1.59	-2.01	-2.43	-2.50	-1.91	-0.17	2.74
Unrequited Transfers, net .....	0.47	0.64	0.83	1.11	1.44	1.85	2.36	3.01	3.85	4.90
Current Account Balance (1) .....	5.31	2.13	1.60	3.05	4.22	4.27	1.26	-1.73	-3.60	-5.56
Net Direct Investment (2a) .....	12.07	18.44	19.13	20.47	22.29	22.10	21.96	20.84	17.69	12.41
Net Portfolio Investment (2b) .....	2.39	3.26	3.35	4.49	5.42	5.92	5.94	5.70	5.62	6.18
Net Financing Requirement (3) .....	-0.51	-0.28	-0.17	-0.13	-0.12	-0.14	-0.18	-0.25	-0.31	-0.30
Net Errors & Omissions (4) .....	-14.54	-13.81	-13.26	-12.86	-12.47	-12.10	-11.74	-11.38	-11.04	-10.71
Overall Balance (5=1+2a+2b+3+4) .....	4.73	9.74	10.65	15.02	19.34	20.05	17.24	13.19	8.35	2.02
Net Financing Requirements .....	-0.51	-0.28	-0.17	-0.13	-0.12	-0.14	-0.18	-0.25	-0.31	-0.30
Amortization Payments .....	41.78	43.20	43.71	43.79	43.51	42.49	40.86	38.87	36.48	33.36
Gross Financing Requirements .....	41.28	42.92	43.54	43.66	43.39	42.35	40.68	38.62	36.17	33.06
Intl. Reserves Excl. Gold .....	137.53	147.28	157.93	172.95	192.29	212.34	229.58	242.76	251.11	253.13
<b>External Debt—Billions of U.S. Dollars</b>										
Total External Debt .....	134.05	137.17	139.92	142.41	144.25	145.60	146.74	147.64	147.97	148.40
Long Term .....	102.65	105.81	109.01	112.28	115.65	119.14	122.77	126.57	130.56	134.75

Short Term .....	31.40	31.36	30.91	30.13	28.60	26.47	23.96	21.06	17.41	13.65
Total Interest Payments .....	5.84	6.02	6.03	6.23	6.39	6.67	6.75	6.82	6.89	6.95
Long Term .....	4.26	4.47	4.50	4.72	4.91	5.23	5.38	5.54	5.71	5.91
Short Term .....	1.59	1.56	1.53	1.51	1.49	1.44	1.37	1.28	1.17	1.04
Total Principal Payments .....	41.78	43.20	43.71	43.79	43.51	42.49	40.86	38.87	36.48	33.36
Long Term .....	11.22	11.80	12.35	12.88	13.39	13.89	14.40	14.90	15.42	15.95
Short Term .....	30.57	31.40	31.36	30.91	30.13	28.60	26.47	23.96	21.06	17.41
Long Term Debt Service Ratio (%) .....	4.1	3.7	3.3	3.0	2.7	2.5	2.3	2.1	2.0	1.9
Total Debt Service Ratio (%) .....	12.5	11.3	9.8	8.5	7.4	6.5	5.6	4.8	4.1	3.4
Annual Percentage Changes										
Exports of Goods, FOB .....	14.8	14.7	15.5	16.1	14.7	13.3	12.2	11.6	11.0	10.9
Machinery & Equipment .....	18.9	18.4	18.3	17.8	15.6	13.9	12.8	12.2	11.7	11.5
Fuels .....	-2.4	-2.5	-1.8	-1.4	-2.5	-3.7	-4.7	-5.2	-5.6	-5.8
Food .....	4.9	5.3	6.3	7.6	6.9	5.9	6.2	7.0	7.4	7.5
Non-Food & Raw Materials .....	9.8	10.9	12.8	13.5	12.5	11.5	10.8	10.4	10.5	10.7
Industrial Consumer Goods .....	14.4	14.2	15.1	16.0	15.0	13.5	12.3	11.6	11.0	10.8
Imports of Goods, FOB .....	16.7	15.7	15.6	15.7	14.6	13.4	12.8	12.2	11.6	11.4
Machinery & Equipment .....	17.0	15.6	15.0	15.4	14.2	13.7	13.7	13.0	12.4	12.4
Fuels .....	18.5	17.4	16.5	16.0	14.8	13.4	12.8	13.3	12.1	12.4
Food .....	16.8	17.4	17.8	17.9	15.9	13.7	12.4	10.1	9.3	9.9
Non-Food & Raw Materials .....	17.1	19.2	20.7	19.8	18.1	13.9	10.7	10.6	9.7	7.9
Industrial Consumer Goods .....	14.9	13.6	14.1	14.0	13.4	11.6	10.7	10.7	10.1	9.9
Service Receipts .....	15.1	14.7	15.2	15.7	14.4	12.9	12.5	11.9	11.5	11.3
Service Payments .....	17.9	16.0	15.8	15.9	14.6	13.1	12.3	11.4	10.4	9.8
Intl. Reserves Excl. Gold .....	3.6	7.1	7.2	9.5	11.2	10.4	8.1	5.7	3.4	0.8
Merchandise Import Cover (Months) .....	5.4	5.0	4.6	4.4	4.3	4.2	4.0	3.7	3.5	3.1
Total External Debt, % of GDP .....	9.4	8.8	8.1	7.3	6.7	6.2	5.8	5.4	5.0	4.6

# AN ASSESSMENT OF CHINA'S AGRICULTURAL ECONOMY: 1980-2005

By Frederick W. Crook \*

## CONTENTS

	Page
Summary .....	124
"Invisible Hand" Introduced, "Iron Boot" Retained 1980-1995 .....	125
Agriculture's Contribution to Total Economy Decreasing .....	126
Rising Incomes and Changing Consumption Patterns .....	127
Future Production Growth Limited by Available Land .....	128
China's Farmers Have Potential To Raise Yields .....	129
Grain Production Projected To Rise .....	131
Grain Imports Projected To Rise .....	131
China's Net Edible Vegetable Oil Imports Projected To Rise .....	133
Domestic and Export Textile Demand Drive Cotton Imports .....	134
China's Exports of Fruits and Vegetables Likely To Grow .....	135
US-China Agricultural Trade Likely Will Expand .....	136
Major Agricultural Problems To Be Resolved .....	137

## FIGURES

Figure 1. Agriculture's Contributions to Total Economy Decreasing .....	127
Figure 2. Urban and Rural Real Per Capita Incomes .....	128
Figure 3. Arable Land in China .....	129
Figure 4. China's Corn Yields .....	130
Figure 5. China's Grain Production Projected To Rise 1 Percent .....	132
Figure 6. China's Grain Imports Projected To Rise Steadily .....	133
Figure 7. China's Vegetable Oil Imports .....	134
Figure 8. China's Net Cotton Imports .....	135
Figure 9. China's Vegetable Exports .....	136
Figure 10. US Agricultural Exports to China Up .....	137

## SUMMARY

China's leaders initiated some reforms in 1979 which had the effect of establishing "family farms." Highly motivated farmers boosted agricultural production and rural incomes to 1984. But the reforms took only partial steps toward revamping central planning and the highly regimented commune system and the agricultural growth rate slowed down after 1984 while rural industrial output continued rapid growth.

The main trends for the coming decade 1996-2005 are as follows. Because of limited arable land, future growth of crop must come from higher yields. China's cultivated land area has been

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underreported and yields have been overreported. China's farmers with the use of high yielding seeds, fertilizer, and conservative use of water should be able to raise crop yields. Grain, oilseed and cotton output is projected to increase but increasing population and rising incomes will boost demand above supplies and China will decrease its exports of these commodities and increase imports from 1996 to 2005.

Information in this report is based on reference materials gathered by USDA analysts in the Economic Research Service and the Foreign Agricultural Service over the past 30 years. Projections of China's crop production, consumption, and trade came from USDA, Interagency Agricultural Projections Committee, *Long-term Agricultural Projections to 2005*, World Agricultural Outlook Board, Staff Report, WAOB-96-1, February 1996.

#### "INVISIBLE HAND" INTRODUCED, "IRON BOOT" RETAINED 1980-1995

Flagging agricultural production and a widening gap between urban and rural areas pushed China's top leaders to initiate policies in rural areas which would encourage rural economic entities and rural households to expand production. They introduced a number of programs and policies which gave increasing economic freedom for rural households to pursue profits—conditions were created so that the invisible hand of markets began to function. At the same time leaders were fearful of losing control and retained control mechanisms to constrain market forces. Over the last 15 years farm families have had to operate in an incredibly complex ever changing economic environment in which they were guided by prices through the invisible hand of the market place yet always had to be mindful of the iron boot.

#### COMMUNES OUT, TOWNSHIPS IN

Authorities judged that the commune system restricted economic growth. Cadres in the system often made poor planning and economic decisions and the collectives (production teams) had a poor record of motivating farm families to labor effectively in the fields. By 1984 rural authorities disbanded most communes but replaced them with the township/village system which retained government and party administrative organizations which have the capacity to use the iron boot.<sup>1</sup>

#### FARMERS FREE TO TILL, BUT NOT OWN THEIR LAND

Beginning in 1979 farmers on their own initiative began to contract with collective farms to cultivate specific parcels of land. Most cultivated land in China is collectively owned by *cun-min-zu* (the old production team). These experiments proved so successful in providing incentives to farm families, boosting output and household income that the central government promoted the policy throughout the country. But local cadres manage the land contract system to make sure that the system fulfills government and party objectives.

<sup>1</sup>F.W. Crook, "The Commune System in the People's Republic of China, 1963-1974," U.S. Congress, JEC, *China: A Reassessment of the Economy*, Washington, D.C., U.S. GPO, July 1975.

## RURAL MARKETS RE-OPENED, BUT MARKET FUNCTIONS RESTRICTED

Rural markets operated in China for a 1000 years before government authorities limited their activity from 1956 to 1980. The re-opening of rural and urban markets after 1980 provided an enormous stimulus to the rural economy. Farm families and rural industries were permitted to sell surplus goods in these markets after fulfilling government mandated purchase agreements. But government leaders still fear markets and use administrative measures to force farmers to sell some of their produce (wheat, rice, corn, soybeans, cotton, oilseeds) to state owned firms at fixed quota prices (often well below market prices). Other government controls include price ceilings in retail markets, controls over future and spot markets, restrictions on import and export of certain agricultural commodities such as wheat, corn, meat, edible oils, and sugar.

## AGRICULTURE'S CONTRIBUTION TO TOTAL ECONOMY DECREASING

## EARLY REFORMS STIMULATED AGRICULTURAL GROWTH RATE

From 1978 to 1984 the reforms strongly supported agricultural growth which rose 7.6 per annum in this period. Most scholars attribute this rapid growth to structural changes and improved incentives which stimulated farmers to boost output.<sup>2</sup>

## WHY THE SLOW DOWN IN GROWTH AFTER 1984?

From 1985 through 1994 the rate of growth slowed to just over 4 percent per annum. One school of thought suggests that the breakup of the commune system and institution of the land contract system led to a one time benefit to growth and subsequent growth depended on technical change which did not occur.<sup>3</sup> A second school of thought attributes the slow down to the fact that grain prices failed to rise and the government regained control of grain markets.<sup>4</sup> Carter, Zhong and Cai attribute the loss of productivity in this period to the fact that input prices rose faster than output prices, that there were diminishing returns from using chemical fertilizers, that farmers had limited opportunity to form efficient sized production units, and that the government reduced its investment in the agricultural sector.<sup>5</sup>

## AGRICULTURE'S CONTRIBUTION DECLINING

In the early 1950s agriculture (crops, livestock, fisheries, forestry, and sidelines) accounted for 58 percent of China output. Since then output from the agriculture sector rose but the growth of industry and other sectors of the economy increased so rapidly that by the mid-1990s the sector's contribution fell to 20 percent (figure 1).

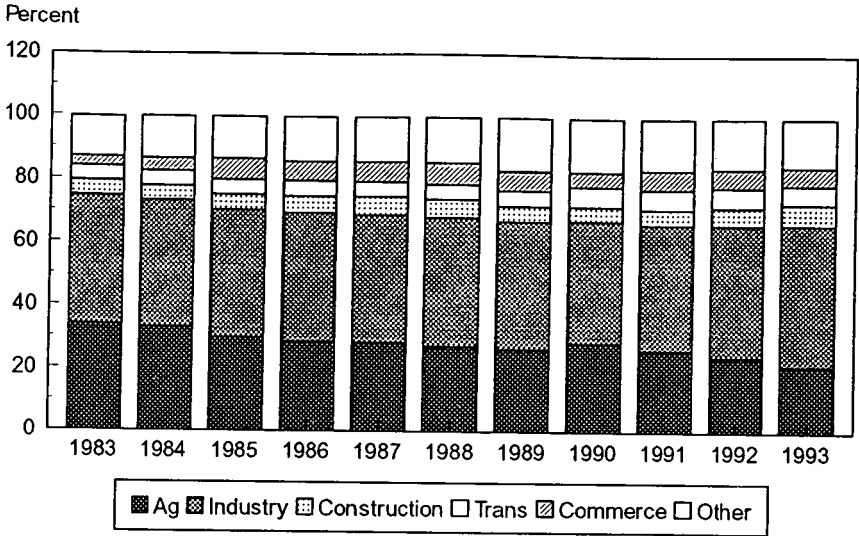
<sup>2</sup>Justin Yifu Lin, "Rural Reforms and Agricultural Growth in China," *American Economic Review*, Vol. 82, 1992, pp. 34-51.

<sup>3</sup>S. Fan, "Effects of Technological Change and Institutional Reform on Production Growth in Chinese Agriculture," *American Journal of Agricultural Economics*, Vol. 73, 1991, pp. 266-275.

<sup>4</sup>Terry Sicular, "Ten Years of Reform: Progress and Setbacks in Agricultural Planning and Pricing," in Y.Y. Kueh and Robert Ash, editors, *Economic Trends in Chinese Agriculture: Impact of Post-Mao Reforms*, New York, Oxford University Press, 1993.

<sup>5</sup>Colin Carter, Zhong Funing, and Cai Fang, *China's Ongoing Economic Reform of Agriculture*, Monograph prepared for The 1990 Institute, San Francisco, California, 1995.

**Figure 1. Agriculture's Contributions to Total Economy Decreasing.**



#### RISING INCOMES AND CHANGING CONSUMPTION PATTERNS

Rapid economic growth over the past 15 years led to rapid increases in both urban and rural per capita incomes. These increases led to significant changes in consumption patterns. Economic growth is forecast to continue for the coming decade which will induce further consumption pattern changes.

#### RAPID RISE IN URBAN PER CAPITA INCOMES

Real urban per capita incomes rose from 439 Renminbi in 1980 to 984 in 1995. In 1980 19 percent of the population lived in urban areas. But in the coming decade the urban population is expected to increase to 35 percent or 500 million people. Growth in urban population and urban per capita incomes is especially important because it is this population which consumes most foreign imported agricultural products. Rapid increases in incomes induced urban consumers to eat less food grains, such as corn and sorghum, and consume more meat, eggs, fruits, vegetables, and processed foods.

#### MODERATE RISE IN RURAL PER CAPITA INCOMES

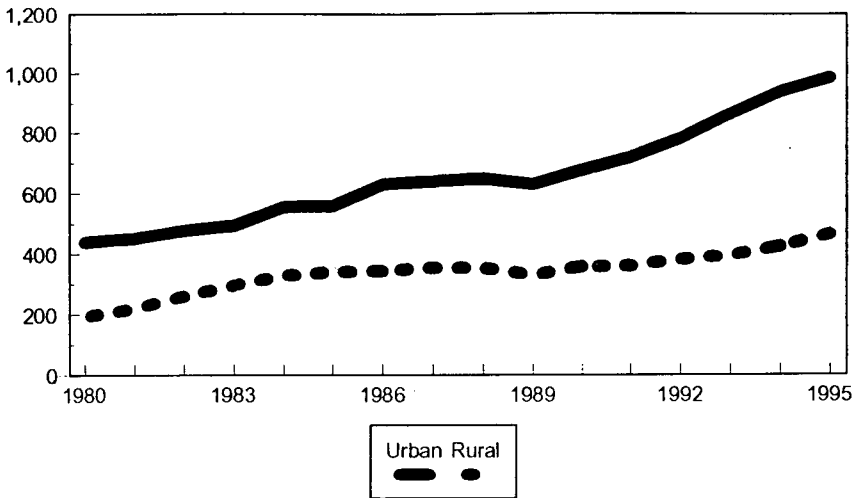
Real per capita rural incomes rose from 191 in 1980 to 465 in 1995. The gap between rural and urban citizens widened in the past decade. Rising incomes in rural areas also induced changes in consumption. In the last decade rural residents increased their consumption of food grains such as wheat and rice but decreased consumption of corn, sorghum and sweet potatoes which China's authorities include as grain. Consumption of meat, vegetables and fruits also increased.

## PROJECTED CONSUMPTION CHANGES

In the coming decade growth is projected to continue and incomes will rise which likely will induce further consumption changes. Urban consumers likely will place a higher priority on the variety, quality and freshness of foods consumed. This will require changes in current farm gate to consumer food links. Improvements will have to be made in transportation links, grading of food products, packaging and storing food items.

**Figure 2. Urban and Rural Real Per Capita Incomes.**

Constant 1980 Yuan



#### FUTURE PRODUCTION GROWTH LIMITED BY AVAILABLE LAND

China's leaders do not have the option of expanding agricultural production by increasing area sown to crops. Expansion must come from raising yields. Given the scarcity of cultivated land and abundance of labor, China from 1996–2005 may begin to raise crops which more closely fit its natural endowment—such as labor intensive crops such as fruits and vegetables. At the same time officials may begin to lift their strict self-sufficiency rule and adopt a limited self-sufficiency strategy which would allow them to import more land extensive crops such as grains and oilseeds.

#### CHINA IS A RELATIVELY LAND POOR COUNTRY

Compared with the quantity of arable land in the United States, China is land poor. In the United States each person is supported by 5,200 square meters of cultivated land/compared with 1,320 square meters in China. On the other hand per capita land availability in China is 4 times that in Japan which has 373 square meters per capita. Each year new arable land is reclaimed but even more arable land is taken out of production because of the building



of residences, factory sites, airfields, railroads, dams, road, and port facilities.

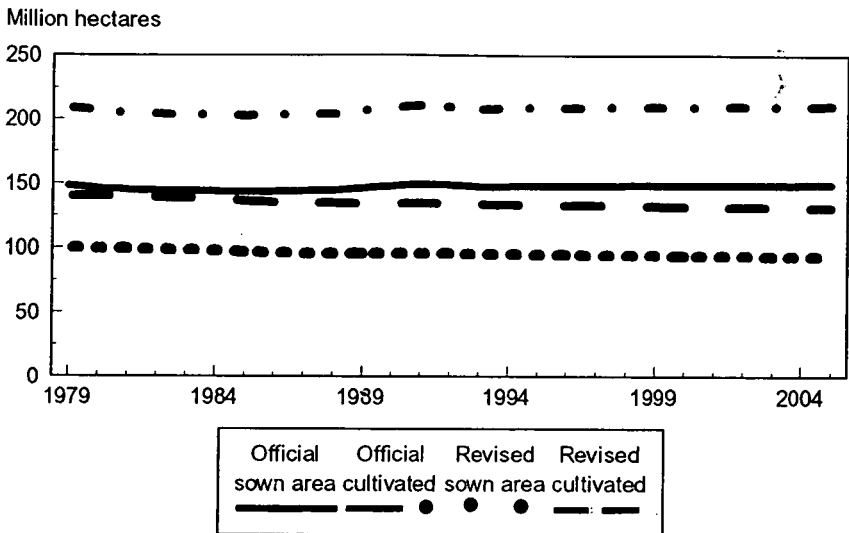
#### LIMITED LAND RESOURCES INTENSIVELY USED

While China has 130 million hectares of cultivated land, its sown area totals over 200 million. This is because farmers in China plant more than one crop on a parcel of land each year (on average they sow 1.5 hectares of crops for each hectare of arable land). From 1996–2005 pressures on arable land will keep the crop intensity ratio high.

#### CULTIVATED AREA DATA IN CHINA IS UNDERREPORTED

Official statistics note that China has about 95 million hectares of arable land. But authorities in Beijing now admit that arable data is underreported by as much as 44 percent (see figure 3). They also note that officially reported crop yield data is overreported by similar amounts.

**Figure 3. Arable land in China.**



#### CHINA'S FARMERS HAVE POTENTIAL TO RAISE YIELDS

Official crop yield statistics show that yields for many crops in China are at world class levels. These data have led some observers of China's agricultural economy to conclude that there is limited potential for farmers to raise yields. But consistently underreporting of arable land led to parallel overreporting of yields. Actual crop yields in China are not as high as reported and with efficient use of resources crop yields can be increased.

## SCIENCE AND TECHNOLOGY

Government investment in agricultural research as a percent of total government expenditures dipped in the 1980s and early 1990s. In the Ninth Five-Year Plan (1996–2000), however, government authorities have pledged to increase investment. China's leaders can increase investment to build up domestic seed-breeding capacity; can increase imports of high-yielding grain seeds or can create a business environment in which domestic/foreign seed companies will invest in seed development.

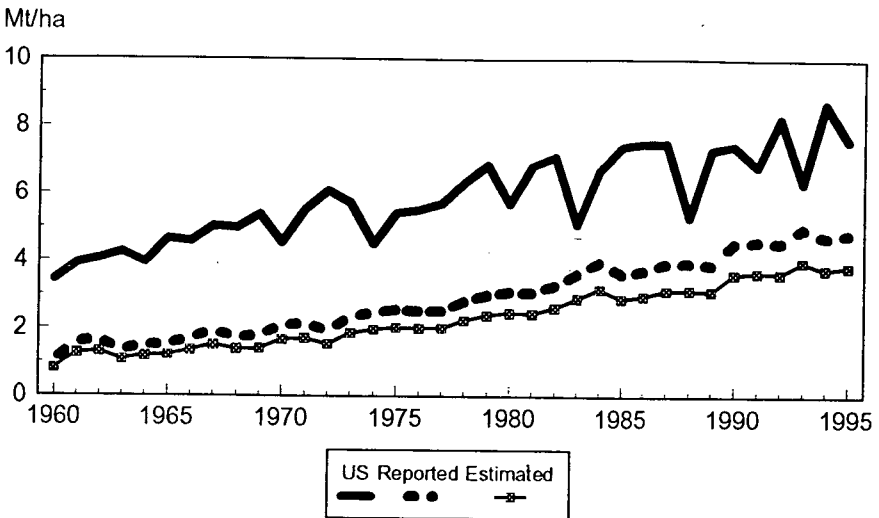
## FERTILIZER USE

Yields can be increased through fertilizer use in three ways. First, there is room to increase the quantity of fertilizers applied. Fertilizer usage remains low in many interior provinces. Second, a less volatile form of nitrogen, like urea, can be used because much of the ammonium bicarbonate escapes into the atmosphere before it becomes available to crops. Third, yields can be raised by applying a better mix of chemical fertilizers (nitrogen, phosphorous and potassium).

## WATER RESOURCES

While central and south China have adequate water supplies western and northern China has serious water deficits. As shortages become more apparent, the government must take steps such as using concrete to line ditches to conserve water and water user fees to encourage more efficient use of water resources. Sewage treatment facilities in rural and urban areas should be constructed to maintain water quality.

Figure 4. China's Corn Yields.



### GRAIN PRODUCTION PROJECTED TO RISE

Grain production is projected to rise by 1 percent a year out to the year 2005. Area sown to grain crops is projected to fall because of decreasing arable land and because cultivated land will be allocated to more productive uses. Yields are projected to more than compensate for the loss in grain area so that total grain output will increase.<sup>6</sup>

### GRAIN AREA PROJECTED TO DECREASE

Area sown to rice is projected to decrease from 30.7 million hectares in 1995 to 29.4 million in 2005 because of sluggish demand for rice and because some fertile paddy fields near urban areas will be converted to vegetable fields and factory sites.<sup>7</sup> Wheat area is projected to remain at roughly 29 million hectares because of strong demand for flour. Area sown to feed grains is projected to rise 0.6 percent a year because of the growing demand for livestock products including meat, eggs, and milk.

### GRAIN YIELDS PROJECTED TO INCREASE

China's wheat and rice yields are high by world standards but are projected to rise by 0.7 percent per annum out to 2005. Remember that official yield statistics are over reported and based on actual yields China's farmers should have opportunities to raise yields. China's official corn yields are substantially below those in the United States (figure 4) and yields are projected to rise by 1.7 percent per annum.

### GRAIN PRODUCTION PROJECTED TO RISE 1 PERCENT A YEAR

While area sown to grains is projected to decrease, rising yields more than compensates and total output should rise. Wheat production is projected to rise from 100 million tons in 1995 to 104 million tons in 2005. Milled rice production is projected to increase from 125 million tons in 1995 to 130 million tons in 2005. Coarse grain is projected to rise from 122 million tons in 1995 to 147 million tons in 2005.

### GRAIN IMPORTS PROJECTED TO RISE

While grain production is projected to rise by 1 percent a year from 1996–2005, population growth and income increases will boost demand for grain. Demand for grain will outpace supply and by 2005 China is projected to import 32 million tons of grain.<sup>8</sup>

### FOOD GRAIN DEMAND STATIC

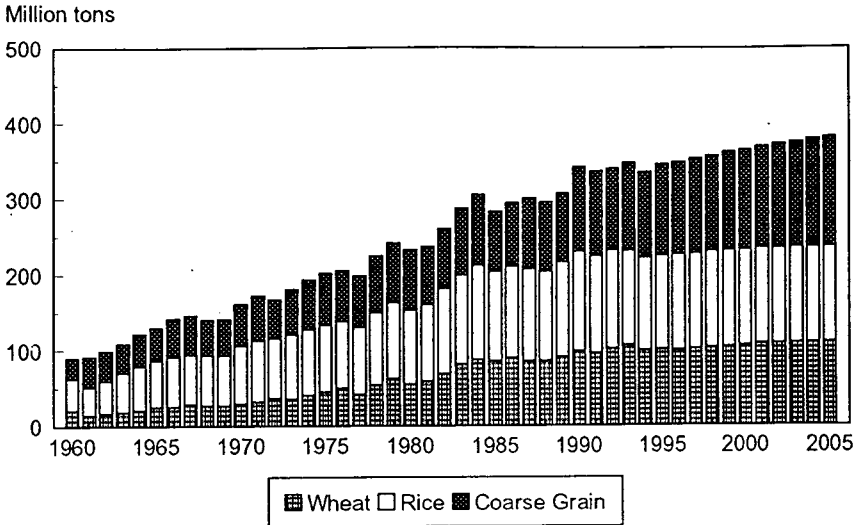
Wheat production is projected to rise 1 percent per annum to 2005 but rice output is projected to decrease slightly. As incomes have risen both urban and rural consumers have tended to pur-

<sup>6</sup>Until China adjusts its cultivated area statistics the projections shown here continue to be based on official data.

<sup>7</sup>USDA, *Long-term Projections for International Agriculture to 2005*, Commercial Agriculture Division, Economic Research Service, 1996.

<sup>8</sup>USDA, Interagency Projections Committee, *Long-term Agricultural Projections to 2005*, World Agricultural Outlook Board, Staff Report WAOB-96-1, February 1996.

**Figure 5. China's Grain Production Projected To Rise 1 Percent.**



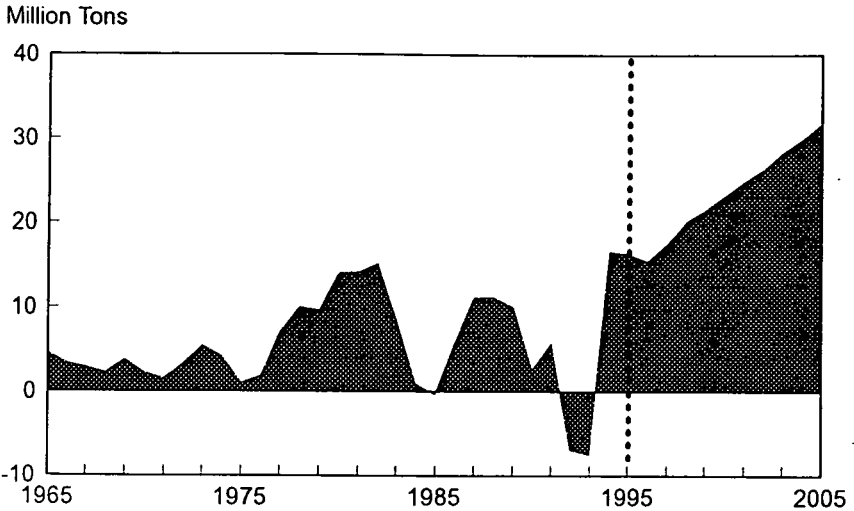
chase more meat, vegetables, fruits, and processed foods and have constrained purchases of food grains. Demand for wheat and rice are projected to outpace supplies and by 2005 China is projected to import more than 18 million tons of wheat and 1 million tons of rice.

#### AUTHORITIES PLAN TO CONSTRAIN FEED GRAIN IMPORTS

Since 1949 China's leaders have carefully allocated scarce foreign exchange to purchase key industrial capital goods and technology to protect their national interests. Traditionally these leaders have been reluctant to use foreign exchange to purchase luxury goods for the masses. In their view consumers already have a fairly high level of meat consumption and consider meat to be a luxury good. Authorities have said that they plan to restrict meat imports and feed grain imports.

#### FEED GRAIN DEMAND WILL INCREASE

Consumers with rising incomes have chosen to purchase more meat (pork, mutton, and beef). By 1995 China's per capita consumption of red meat equaled that in Japan and Korea which had much higher living standards. Incomes are projected to rise substantially in the coming decade and per capita meat consumption is forecast to rise to 60 kilograms. Feed grain output is forecast to increase but demand will outpace supply and while the demand for corn will be great, authorities will limit corn imports to 12 million tons by 2005.

**Figure 6. China's Grain Imports Projected To Rise Steadily.**

**CHINA'S NET EDIBLE VEGETABLE OIL IMPORTS PROJECTED TO RISE  
OILSEED PRODUCTION PROJECTED TO RISE 1.3 PERCENT**

Oilseeds include soybeans, cottonseed, peanuts, rapeseed, and sunflower seed. Area sown to oilseeds is projected to rise by 0.3 percent per annum. China reported soybean yields in 1994 were 1.6 tons per hectare compared with 2.35 tons in the United States. Again noting that China's crop yields are overreported, certainly there is room for China's farmers to boost yields in the coming decade. Yields are projected to rise 1 percent per annum.<sup>9</sup>

**PER CAPITA EDIBLE OIL CONSUMPTION**

Per capita vegetable oil consumption in China for 1994 was 7.5 kilos compared with 12 for Korea and nearly 18 kilos for Japan. Household sample survey data for 1994 shows rural residents consumed 4 kilos of vegetable oil and 1.7 kilos of animal fat. Urban residents consumed 7.6 kilos of vegetable oil and 0.6 kilos of animal fat.

**DEMAND INCREASE FOR OILSEED MEAL**

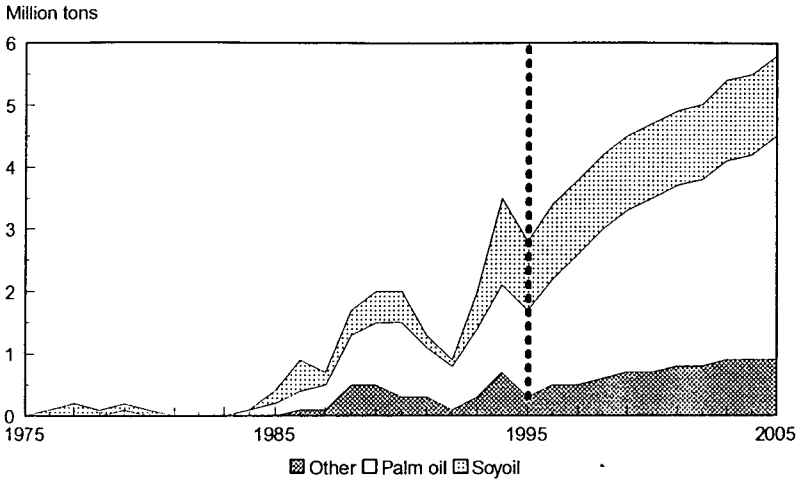
Reference has already been made to the growing demand for livestock products and for feed grains. This increased demand for livestock products also affects the demand for protein meals and while oilseed output will increase in the coming decade demand will outpace supply and China's soybean imports are projected to rise from 150,000 tons in 1995 to 2.3 million tons in 2005. These imported oilseed will be crushed domestically to satisfy the demand for protein meals and edible oil.

<sup>9</sup> USDA, USDA Data Base, April 1996.

## DEMAND INCREASE FOR VEGETABLE OIL

As urban incomes rise consumers likely will increase consumption of processed foods such as instant noodles which use vegetable oils in the manufacturing process. Per capita vegetable oil consumption is projected to rise from 7.5 kilos in 1995 to 10.3 kilos in 2005, an annual increase of 3.3 percent. Palm oil imports are projected to rise from 1.6 million tons in 1995 to 3.7 million tons in 2005.<sup>10</sup>

**Figure 7. China's Vegetable Oil Imports.**



## DOMESTIC AND EXPORT TEXTILE DEMAND DRIVE COTTON IMPORTS

## DOMESTIC DEMAND SUPPORTS GROWTH IN DOMESTIC PRODUCTION

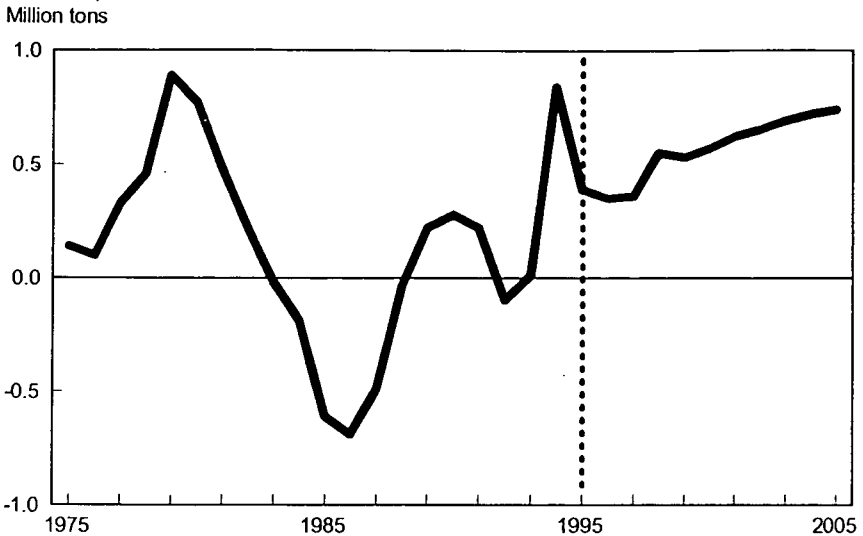
Rising population and income growth will boost domestic demand for raw cotton. Farmers are projected to respond to this demand by increasing area sown to cotton 5.5 million hectares in 1995 to 5.9 million in 2005. Official yields at 0.78 tons per hectare are parallel to those in the United States. But actual yields are lower and farmers there are projected to increase yields by 1.5 percent per annum. Cotton output therefore is projected to grow from 4.2 million tons in 1995 to 5 million in 2005.

## DOMESTIC AND EXPORT DEMAND FOR COTTON TO RISE

Increases in domestic production, however, will not offset the rise in domestic demand for raw cotton and demand from textile mills to meet foreign demand. China's exports of raw cotton are not expected to rise and imports are projected to rise from 450,000 tons in the base period and 832,000 tons in 2005.<sup>11</sup>

<sup>10</sup> USDA, Interagency Agricultural Projections Committee, *Long-term Agricultural Projections to 2005*, World Agricultural Outlook Board, Staff Report WAOB-96-1, February 1996.

<sup>11</sup> USDA, Interagency Agricultural Projections Committee, *Long-term Agricultural Projections to 2005*, World Agricultural Outlook Board, Staff Report WAOB-96-1, February 1996.

**Figure 8. China's Net Cotton Imports.**

#### CHINA'S EXPORTS OF FRUITS AND VEGETABLES LIKELY TO GROW

Given China's natural endowments of scarce land and abundant labor it seems reasonable to expect that in the coming decade growers and food enterprises will shift resources to expand production and exports of fruits and vegetable products.

#### CHINA IS ALREADY A MAJOR WORLD VEGETABLE EXPORTER

Exports rose from 2.2 million tons (\$721 million) in 1986 to 3.1 million tons (\$2.4 billion) in 1995. Major markets include Japan, Hong Kong, Singapore, and Korea. In the coming decade China will import some fruits and vegetables from the United States but will also become a fierce competitor in East Asian markets.

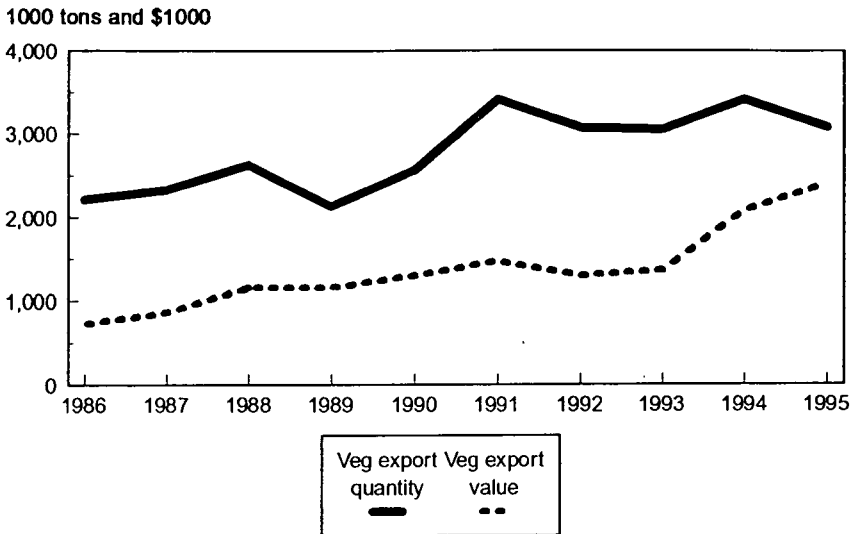
#### FARM GATE TO EXPORT PORT LINKS TO BE IMPROVED

To become more competitive in the coming decade China's authorities need to improve several links between farm gate and export harbors. Plans have been laid to spend billions of US dollars to construct roads and bridges to improve China's inadequate road system. In the coming decade both domestic and foreign investment will be sought to expand cold storage and food processing facilities. These facilities should extend the marketing period in which China can export fruits, vegetables and processed foods. Packaging and labeling have been constraints for China's exports in the past and government inspection and certification procedures must be acceptable to importing countries. Grading standards need to be organized.

## PROCESSED FOOD EXPORTS

Output of China's canned food industry rose from nearly 600,000 tons in 1980 to 2.5 million tons in 1994. Rapid growth can be expected in the coming decade and exports of such specialty items as water chestnuts and mushrooms will likely increase. Domestic output of processed foods (foods for infants, canned goods, soft drinks, desserts, cookies, crackers, and sauces) will increase. Labor intensive food preparation such as packing special poultry cuts for export markets will rise.

**Figure 9. China's Vegetable Exports.**



### US-CHINA AGRICULTURAL TRADE LIKELY WILL EXPAND

#### PAST US-CHINA AGRICULTURAL TRADE HAS BEEN VOLATILE

Since the early 1970s US agricultural exports have shown great volatility from practically nil in some years (1986) to \$2.6 billion in 1995 (see figure 11). This variation came because of changing supply and demand conditions in China and the United States, because of trade policies, and because of commercial and foreign policy considerations.

#### US-CHINA AGRICULTURAL TRADE LIKELY TO EXPAND

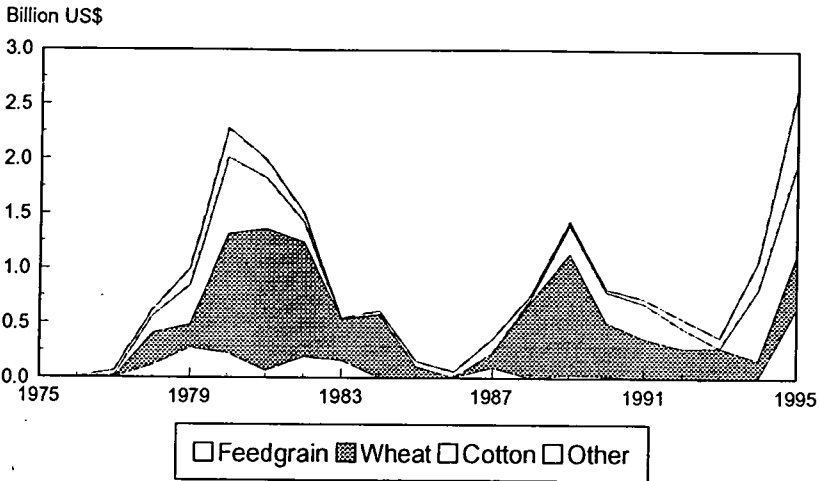
In the coming decade US-China agricultural trade likely will expand as these two large economies adjust to each other and the rest of the world. The United States likely will have a comparative advantage in producing land extensive crops such as grains and oilseeds and likely China will import these products because it is relatively land poor. But China likely will expand exports to the Unit-



ed States in which it has a comparative advantage. As this trade develops a number of trade issues need to be resolved.

- Phyto sanitary issues
- Barriers to trade—state trading, quotas and tariffs
- China's relatively poor infrastructure (lack of port, transportation and cold storage facilities) is a barrier to trade.
- Overall balance of trade.
- Issues over intellectual property rights.

**Figure 10. US Agricultural Exports to China Up.**



### MAJOR AGRICULTURAL PROBLEMS TO BE RESOLVED

In the coming decade a number of issues need to be resolved. The issues below are not listed in any particular priority.

#### LAND OWNERSHIP

China's farmers do not own the land they cultivate and hence are reluctant to invest in improving land productivity because the land they improve may be farmed by others in subsequent years. Also it is not easy for farmers to transfer land use rights to other farmers which makes it difficult for China's farmers to organize production units of efficient size.

#### DEVELOPMENT OF MARKETS

Currently government authorities continue to control wheat, rice, corn, sugar, vegetable oil, tobacco, tea and cotton marketing. National interests such as food security need to be balanced with production and efficiency considerations.

#### GOVERNMENT INVESTMENT IN AGRICULTURE

In past decades the development of industry had top priority while the government generally neglected the agricultural sector.

But big benefits will accrue to the total economy if the government invests more in agricultural research and technology, rural infrastructure and rural education. *Rural Infrastructure*

In the coming decade the government likely will continue its program of organizing rural residents to allocate several weeks to work on rural construction projects to build dams, canals, irrigation facilities, bridges and roads. In addition the government needs to allocate funds to build new roads and maintain old ones.

#### INCOME GAP BETWEEN RURAL AND URBAN RESIDENTS

In 1995 urban residents were 2.5 times better off than their rural cousins (US\$ 469 for urban residents compared with US\$190 for rural residents). The difference was largely generated by deliberate policy choices to advance the interests of urban residents. While programs to subsidize urbanites are waning a large gap remains. This gap in living standards fosters discontent in rural areas which could produce political instability for the whole country.

#### RURAL ENVIRONMENT

Northern China has a serious water shortage problem and government authorities need to initiate water saving programs and reduce the amount of water pollution from industrial waste, sewage, and fertilizer and pesticide use. Deforestation and encroachment of deserts continue to be major problems.

#### RURAL EDUCATION

Illiteracy continues to be a major problem in rural areas. Authorities are trying to make primary education universal. In the coming decade agricultural growth will depend in large part on improvements in crop and livestock yields which depend in large part on an educated farm population. Primary education will also benefit those young people who do move to town and urban areas.

# HOW FAR ALONG IS CHINA IN DEVELOPING ITS FOOD MARKETS?

By Colin A. Carter and Scott Rozelle \*

## CONTENTS

	Page
Summary .....	139
Introduction .....	139
Early Stages of Agricultural Reform .....	143
Recent Agricultural Reform and Market Liberalization .....	145
Urban Reforms .....	146
Rural Reforms .....	149
Impact of Recent Market Reforms .....	151
The 1994-95 Food Price Shock .....	154
Agriculture's Comparative Advantage .....	157
References .....	158

## TABLES

Table 1. Real Growth Rates (%) of Gross Value of Agricultural Output, 1979-93 .....	144
Table 2. Per Capita Food Consumption: 1978-92 .....	145
Table 3. Free Markets in Urban and Rural Areas .....	149

## FIGURE

Figure 1. Urban vs. Rural Per Capita Incomes: 1981-94 .....	141
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## SUMMARY

China is the world's largest producer and consumer of agricultural commodities and grain production (mainly rice, wheat, and corn) figures prominently in China. The importance of grain is highlighted by the fact that China devotes more than 30 percent of its total labor force to grain production and approximately 80 percent of average caloric intake is supplied by foodgrains. Crop yields have been maximized by using high levels of inputs and by increasing the number of crops harvested per hectare. Historically, substantial technological advances have been made in China's grain production. Sophisticated seed breeding, water control, land preparation, and fertilizer-using technologies have a long history of development in China.<sup>1</sup>

However, technology cannot be fully exploited without complementary economic incentives. The absence of production incentives and product and input markets for agriculture was responsible for inefficient resource allocation and low production growth

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<sup>1</sup>Stone, 1993.

prior to the 1979 reform. The basic objective of reform was to speed economic growth through improved incentives and the introduction of market mechanisms, aimed to ensure greater supplies of grain and other food products. However, the reformers did not dismantle a myriad of other institutions which give the government a political and administrative reach into the countryside.<sup>2</sup>

Recent experience clearly suggests that market-oriented reform is the key to faster growth in Chinese agriculture. However, this does not imply that China's government will rapidly push for further food market reform. China's pursuit of market efficiency has been gradual, because stability is viewed by the Chinese leadership as being more important than growth.<sup>3</sup> For example, the policy response to the 1993-94 bout of inflation indicates that the government is willing to fall back on administrative measures in order to control prices of basic goods like grain and cotton. This is consistent with the government's long term policy of favoring industrialization, which requires a supply of cheap food and other inputs in order to promote political stability in the urban-industrial sector.<sup>4</sup>

The pursuit of efficiency on the one hand, and the desire for low-priced abundant urban food on the other, has led to a series of erratic policy swings.<sup>5</sup> Although some analysts have recognized the harmful effects of such an inconsistent set of policies to long-run agricultural development,<sup>6</sup> political considerations have precluded policy makers from deepening rural reforms too rapidly. Because of the government's desire to preserve its influence over resource allocation in agriculture, truly market liberalizing reforms were never part of the initiatives of the early reformers.<sup>7</sup> Maintaining control over parastatal marketing agencies in grain, oilseeds, and major cash crops was seen as essential in order to ease implementation of government policies.

Since the early 1990s China's food markets have developed quite rapidly. However, there are remaining inefficiencies in China's marketing system (e.g., monopoly government agencies, incomplete grading, inefficient transportation and storage, lack of market information, market failures, etc.). The low level of interregional trade is still a significant problem in China, and acts as a drag on further economic growth. Lack of regional integration also contributes to the disparity of incomes between prosperous (coastal) and less-prosperous (inland and western) regions. Indeed, China's urban-rural income gap is much wider than anywhere else in Asia.<sup>8</sup>

## INTRODUCTION

China's agricultural sector has undergone a number of important changes since the end of World War II. Immediately after the communists gained power, there was wide-scale redistribution of land,

<sup>2</sup> Lin, Cai, and Li, 1994.

<sup>3</sup> McMillan and Naughton, 1991.

<sup>4</sup> The urban bias of the government's development policy has been described by Wang, 1994; Chen, 1994a; and Duan, 1994.

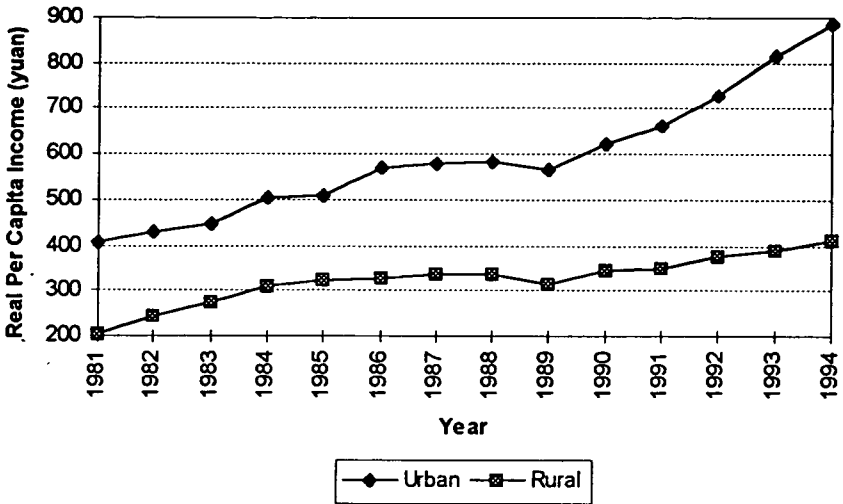
<sup>5</sup> Putterman, 1992.

<sup>6</sup> Sicular, 1993.

<sup>7</sup> Rozelle, forthcoming.

<sup>8</sup> Lardy, 1994.

Figure 1. Urban vs. Rural Per Capita Incomes: 1981-94.



Source: Zhongguo Tongji Nianjian (ZGTJNJ), various years.

buildings and draft animals.<sup>9</sup> During this period, the rural economy was basically free-market orientated, and the state played a minor role in resource allocation. The cooperative movement (1953–57) and the subsequent communization (1958–62) led to a near collapse of the rural economy.<sup>10</sup> The “Readjustment Period” began in 1963 and revived the rural economy for a short time. However, despite a steady rise in grain production (about 3 percent per year) the “Cultural Revolution” (1966–76) seriously set back China’s agricultural sector because of slow overall output and rural income growth. After the death of Mao Zedong in 1976, major policy changes became possible. Beginning in 1978, the commune system was gradually replaced by the production responsibility system, which began a process of decentralization of economic decision making in China’s rural economy.<sup>11</sup> The agricultural sector has grown rapidly since reform and in real terms the value of output in 1995 was two and one-half times as large as it was in 1978. The success of agriculture’s reform led to further reforms in other sectors of the economy.<sup>12</sup>

Prior to reform, all farm products were classified into three categories by the government. The goods in the first category, including grain,<sup>13</sup> edible oil and oil-bearing crops, and cotton, were subject to so-called *tong gou*, or unified procurement. The government was the sole buyer of goods in this category, through the compulsory quota system. Basic quotas were fixed for a three- to five-year

<sup>9</sup> Wong, 1973.

<sup>10</sup> Wen, 1993.

<sup>11</sup> For more details see B.F. Johnston (1989) and D. Perkins and S. Yusuf (1984).

<sup>12</sup> Perkins, 1992.

<sup>13</sup> China’s official definition of grain includes rice, corn, wheat, barley, sorghum, millet, soybeans, potatoes, and other coarse grains. Potatoes are converted to a grain equivalent using a conversion ratio of 5:1.

period, along with production targets, and farm products were procured at fixed prices. The quantities of above-quota deliveries were also compulsory, and set as a certain percentage of the production exceeding the target levels. These goods were usually purchased at a 20 to 30 percent premium above the quota price. The goods could not be sold on the free market, and the surplus (if producers were willing) could be sold to the government at a "negotiated price," also unilaterally set by the government.

The goods in the second category were subject to *pai gou*, or imposed purchases, and consisted of meat and aquatic products, tobacco, tea, silk, and sugar crops. The government set compulsory procurement quotas and corresponding prices for these products, but permitted sales on the free market after producers fulfilled their delivery obligations.

There were no compulsory quotas for the goods in the third category, which mainly consisted of vegetables and fruits and some industrial crops. However, because producers could not engage in long-distance trading, government agencies dominated the markets for these goods and were able to set prices to a large extent.

At present, free markets operate for the following goods: meat, aquatic products, edible oil, tea, silk, sugar, fruits, vegetables, some grains (potatoes, sorghum, barley, millet, peas, beans, and oats), and other industrial crops. Marketing of rice, wheat, and corn is still partly constrained by mandatory delivery quotas. Farmers must fulfill this obligation by selling grain to the state at artificially low price levels, before being allowed to sell any surplus grain onto the free markets. Cotton prices are still set at artificially low levels and cotton cannot be sold on the free market.<sup>14</sup> The situation with China's agricultural markets continues to change rapidly however.

The purpose of this chapter is to describe and assess the impacts of the recent set of agricultural marketing and price reforms and to identify constraints still holding back further liberalization and more efficient market operation. To meet these broad goals, the chapter's specific objectives are the following: (a) to review recent changes in agricultural marketing and pricing policy in the context of China's stop-and-start reform history; (b) to discuss how these reforms have affected the performance of the rural and urban markets; and (c) to discuss remaining imperfections in China's food markets.

To accomplish the objectives, the next section briefly reviews developments in agricultural marketing and pricing policies before 1990 (i.e., the early stages of reform). The third section recounts the most recent set of market liberalizing reforms since about 1990. The fourth section discusses the impact of recent reforms and the fifth section describes the rapid food price increases that began in early 1994, and reviews the major hypotheses that explain this experience. The last section discusses agriculture's comparative advantage in China's overall economy.

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<sup>14</sup> See Sicular (1988, 1991, 1993, 1995) and Rozelle (forthcoming) for additional discussion of the development of marketing channels for China's agricultural products.

## EARLY STAGES OF AGRICULTURAL REFORM

China's agricultural reforms can be divided into three stages. The first stage of liberalization took place in the late 1970s and early 1980s with the dismantling of the commune system, introduction of the household responsibility system (HRS), reduced restrictions on open-market sales, and the encouragement of the township and village enterprises (TVEs) to enhance the overall rural economy. The second stage came in the mid-1980s through liberalization of the unified procurement system and the reduction of contracted purchasing. Finally, in the late 1980s and early 1990s, the third stage was aimed at liberalization of commodity prices and financial markets. This section will discuss the first and second stage, while the key features of the most recent set of reforms will be explained in the next section.

Following the first wave of reform, China's agricultural production growth was abnormally high for a few years due to one-time productivity gains from improved incentives.<sup>15</sup> With their new-found decision-making power under the HRS during the initial stage of reform, farmers responded to favorable prices by boosting production with available technology. From 1979 through 1984, the gross value of agricultural output (GVAO) increased at an annual rate of 7.7 percent, compared with an annual average of 2.7 percent for the previous 26 years (1952 through 1977). Table 1 reports average annual growth rates for China's GVAO in 1979-94 and three sub-periods, (1979-84, 1984-88, and 1988-94), and for the five main components of GVAO: cropping, forestry, animal husbandry, sideline production,<sup>16</sup> and fisheries. Cropping and animal husbandry are by far the two most important components of the GVAO.

Reformers raised agricultural procurement prices by 20 percent in 1979, and they also increased the above-quota price premiums. Centralized sown area plans were relaxed to a certain extent, and procurement quotas were gradually reduced, and even abolished for some commodities. Various production responsibility systems were tried, and finally, the HRS became the dominant form. Rural markets were formally reopened to give farmers the opportunity to trade their surplus goods after fulfilling quota delivery obligations, and private long-distance shipping and marketing were permitted.

Stimulated by these policy measures, and supported by available technology (such as hybrid rice) and an enhanced supply of manufactured inputs, production of grain increased from 304.8 to 407.3 mmt during the first stage, equivalent to an annual growth rate of 4.8 percent over the six years. Cotton increased even faster, 19.3 percent annually, from 2.17 to 6.26 million metric tons (mmt). Oil-bearing crops increased at a rate of 14.7 percent, from 5.22 to 11.91 mmt. During the same period, meat (including pork, beef, and mutton) production increased from 8.56 to 15.41 mmt, while aquatic production increased from 4.66 to 6.19 mmt.

<sup>15</sup> McMillan, Whalley, and Zhu, 1989; Carter and Zhong, 1991; Fan, 1991; Lin, 1992; Putterman, 1993.

<sup>16</sup> China's statistical bureau defines "sideline production" as activities that include gathering and hunting, family handicrafts, and the like.

TABLE 1. Real Growth Rates (%) of Gross Value of Agricultural Output, 1979-93.

Year	GVAO	Cropping	Forestry	Animal Husbandry	Sideline Production	Fisheries
1979 .....	7.5	7.2	1.4	14.6	-3.5	-3.4
1980 .....	1.4	-0.5	2.2	7.0	6.1	7.7
1981 .....	5.8	5.9	4.1	5.9	24.0	4.4
1982 .....	11.3	10.3	9.5	13.2	21.9	12.3
1983 .....	7.8	8.3	10.2	3.9	11.6	8.6
1984 .....	12.3	9.9	19.0	13.4	33.0	17.6
1985 .....	3.4	-2.0	4.5	17.2	20.6	18.9
1986 .....	3.4	0.9	-3.6	5.5	20.0	20.5
1987 .....	5.8	5.3	-0.3	3.2	15.4	18.1
1988 .....	3.9	-0.2	2.3	12.7	12.6	11.6
1989 .....	3.1	1.8	0.4	5.6	6.0	7.2
1990 .....	7.6	8.6	3.1	7.0	3.8	10.0
1991 .....	3.7	1.0	8.0	8.9	0.3	7.6
1992 .....	6.4	3.5	7.7	8.8	11.2	15.3
1993 .....	7.8	5.2	8.0	10.8	na	18.4
1994 .....	8.6	3.2	8.9	16.7	na	20.0
Average growth rate (%):						
1979-94 .....	6.2	4.3	5.3	9.7	na	12.2
1979-84 .....	7.7	6.9	7.7	9.7	15.5	7.9
1984-88 .....	5.8	2.8	4.4	10.4	20.3	17.3
1988-94 .....	5.9	3.3	5.5	10.1	na	12.9
Share of GVAO (%):						
1979 .....	100	75	4	17	3	1
1990 .....	100	59	4	26	6	5

Source: Zhongguo Tonji Nianjian (ZGTJNJ), 1993 and 1994.

The achievements of the initial reforms in the rural areas encouraged the government to adopt bolder measures to reform the urban sector. Major urban policy measures in the mid-1980s included double-track pricing,<sup>17</sup> enterprise tax and wage reforms, banking and financial reform, revenue-sharing systems between central and local governments, and the opening up of 14 coastal cities, in addition to the special economic zones established in the previous stage. While the urban sector benefited significantly in this period (i.e., mid-1980s), it also suffered from double-digit inflation in 1988.

Implementation of urban reforms also coincided with the second stage of agricultural reform. It may have been China's fiscal crisis that served to induce agricultural reformers to launch a second set of rural policies. The government did not raise urban retail food prices during the early 1980s, even in the face of rising procurement prices paid to farmers. Per capita food consumption soared, especially for meats (see Table 2). Urban food subsidies reached one-fourth of the total government budget during this period and the associated budgetary burden became excessive. The situation

<sup>17</sup> Double-track pricing established a market system of pricing side-by-side with government planned pricing.



became critical with the record harvest of 1984, which resulted in a large surplus of grain and cotton.

In an attempt to correct the situation, the government converted the 30-year-old procurement system into a so-called "contracted purchasing" system. Leaders established a new unified price which equaled the weighted average of the former quota and above-quota prices. The marginal price became the *unified* price instead of the above-quota price, which at prevailing prices meant the marginal price for grain fell by 35 percent. In addition, the quantity of cotton purchased by the central government was reduced in both 1985 and 1986. In 1985 alone, the government cut its purchases by 25 percent. Since the government was the only buyer of cotton and was the major grain buyer, the farmers responded both by reducing sown areas, and by reducing the application of manufactured inputs. Grain production decreased by 7 percent in 1985, and cotton by 34 percent.

TABLE 2. Per Capita Food Consumption: 1978-92.

Year	Meat (kg)	Fish (kg)	Poultry (kg)	Vegetable Oil (kg)	Grain (kg)	Real per capita income (yuan)
1978 .....	8.86	3.50	0.44	1.60	195.46	315
1980 .....	12.79	3.41	0.80	2.30	213.81	348
1984 .....	15.51	4.32	1.35	4.66	249.65	483
1986 .....	17.26	5.33	1.72	5.17	252.67	543
1988 .....	18.06	5.66	1.75	5.87	246.10	618
1990 .....	20.10	6.53	1.73	5.67	238.80	610
1992 .....	22.58	7.29	2.31	6.29	235.91	771
1978-92 average growth rate .....	7%	5%	12%	10%	1%	6%

Source: (ZGTJN), 1994.

When grain production did not recover to the 1984 levels, the government became concerned and took action. In 1986, leaders announced that purchasing contracts with farmers were "state contracts." Delivery quotas became compulsory again, and sales onto the free market were allowed only after fulfillment of quota obligations. In essence this was much like the original system with the above quota sales price being replaced with a voluntary negotiated price. Purchase prices for major crops were raised again, and in some regions leaders relied on sown area and procurement plans, informally implemented through local cadres. These policy measures led to resources being reallocated back towards grain production and, in many regions, away from activities (such as cash crops) for which farmers had a comparative advantage.

#### RECENT AGRICULTURAL REFORM AND MARKET LIBERALIZATION

The reform measures adopted in the second stage (i.e., mid-1980s) were quite successful in boosting industrial growth in urban areas, but they also led to high inflation by 1988. To slow down the

inflation rate, the government postponed further reforms of the price system, recentralized control over prices for many items, tightened the money supply and credit,<sup>18</sup> and cut, or postponed, investment in a wide range of projects under the "rectification program." The agricultural sector in many areas of the country suffered a severe slowdown in growth during this period.

However, recovery was quite rapid as economic development and reform both speeded up again in the third stage. Although the government had already taken some measures in late 1990 to bring the economy back from low growth during the retrenchment period, it formally declared an end to the rectification program in early 1992. Later that year, when it was announced that the socialist market economy was being set as a goal for the country, the process of reform accelerated, with the objective of establishing a market-oriented economic system, including restructuring the role and function of the government.

Agricultural production recovered in the early 1990s. Measured in real prices, the GVAO increased by 43.3 percent in 1994 over 1988, or 5.9 percent annually. The cropping, forestry, animal husbandry, and fishery sub-sectors grew at an annual rate of 3.3, 5.5, 10.1, and 12.9 percent, respectively. Major farm products, which were of particular concern to the government, all increased significantly. On average, grain production was 438.9 mmt per year during the 1988–94 time period, 19.9 percent higher than over the 1984–88 time period.

As China moved into the early 1990s, its leaders were presented with a unique opportunity to push forward with even deeper market reforms in both the urban and rural components of the food system. Such reforms would attract minimal political opposition, since urban food prices were low, grain stocks plentiful, and grain imports low, providing a "slackness" that could accommodate new reforms. At the same time, budgetary pressures were growing, adding another impetus for reform.

#### URBAN REFORMS

In this environment of low political opposition, policy makers implemented a series of policy reforms that radically changed the organization of China's food marketing and pricing institutions in the urban economy. The urban reforms can be divided into four major components:

- Elimination of grain rationing;
- Elimination of planned interprovincial grain transfers;
- Commercialization of urban grain outlets; and,
- Establishment of urban food marketing networks.

The retail prices for grain and edible oil rations in the urban areas were raised by 20.9 percent in 1991, and another 39.2 percent in 1992, bringing the rationed retail price equal to the procurement price and leaving the government to subsidize only the associated marketing and processing costs. By mid-1993, almost all cities and counties abandoned the rationing system, and the state-

<sup>18</sup>International Monetary Fund, 1993.

run grain shops in the urban areas had started conducting business as commercial enterprises.

Leaders timed the policies to come at a time of falling real and nominal grain prices and rising urban incomes. Urban ration prices had remained constant in nominal terms from 1970 to 1988 and in real terms, urban grain prices fell by over 25 percent during the 1980s. In the early 1990s, while urban wages soared in real terms, the farm gate price of grain fell sharply. When the ration subsidies were eliminated the price paid by urban consumers for rice soon rose rapidly, from 370 yuan per ton to 550 yuan in 1991. By 1992, rice prices rose to 770 yuan—almost a doubling of the real price in a few years time.

The end of formal grain rationing eliminated the need for the nation's interprovincial grain transfer plan. Beginning in 1993, provinces conducted all grain transactions on a voluntary basis.<sup>19</sup> Surplus and deficit provinces now had to work out their own delivery and pricing schedules. While provinces still retained active grain transport and planning departments, after 1993, shipments and deliveries in and out of the province were arranged directly by commercial buyers and sellers without the involvement of planners.

Within most metropolitan areas, a series of new measures made retail outlets less reliant on fiscal support, and gave grain station managers the opportunity to participate in new commercial ventures.<sup>20</sup> However, most municipal governments still require the newly commercialized grain shops to continue to sell grain and oil. Grain managers are not permitted to lay off workers and they have to continue to support retired employees. Additionally, leaders expect managers to continue to carry out certain policy functions (e.g., manage national grain stocks). In return, managers were granted the right to use their unit's assets—storefront locations, shop equipment, storage facilities, and transport fleets—for other nongrain purposes.

The policies encouraged outlets to diversify their product lines, while staying in the retail food business. Many managers increased the diversity and quality of grain products in their shops. Many grain shops also diversified into other grocery items. Innovative managers frequently kept only a part of their storefront as a grain shop, the rest of the property being partitioned off into another line of business, such as a restaurant or a general trading company. In some downtown locations, grain shops were allowed to convert their business to some other line of work in order to pay a rent commensurate with the opportunity cost of the shop's location.

Relaxation of sourcing requirements had a sharp impact on urban grain market development in many cities. For instance, grain outlets were allowed to choose suppliers freely, only one of which was their former government supplier. Private wholesalers had long participated in urban markets, providing grain to private stalls and institutional buyers alike, but seldom had they been allowed to sell to state grain stores (even for non-rationed items such as premium quality grains and flour). After the elimination of rationing, grain poured into the cities through a multiplicity of chan-

<sup>19</sup> Wu, 1995.

<sup>20</sup> *Ibid.*

nels. In some areas, managers sent their truck fleets to nearby areas to purchase and haul back grain shipments. Some outlets began to act as wholesalers for other shops.

For these new grain firms, the form of profit sharing differs among provinces and even among regions within provinces.<sup>21</sup> Some firms continue to pay employees only the basic wage and this is still a form of commercialization. However, the basic wage in most cities provides a level of support far below what is needed to maintain even a minimum standard of living. In many cases, firms implemented a collective bonus system which pays employees bonuses (above the basic wage) after a certain level of sales or profits has been reached. At the other extreme, a person (typically the former manager) entered into a contract with the government, which gave that person wide-ranging decision-making authority over the firm's business, including the level and distribution of wages and bonuses, supply procurement, and product sales and marketing strategies. Under this scheme, managers and upper level grain bureaus share after-tax profits. Regardless of the exact form of the new managerial or employment scheme, improved incentive structures were provided to both managers and employees to minimize costs and maximize profit. Financial compensation became more closely tied to performance.

Market activity also requires infrastructure, including transportation and communication networks, and the development of human capital by traders with the know-how to act as intermediaries between producer and consumer.<sup>22</sup> One important aspect of China's agricultural reform success has been the successful establishment of marketing networks for agricultural products.<sup>23</sup> In transition economies such as China's, market competition play a critical disciplining role for collective and state institutions.<sup>24</sup>

As the government gradually reduced the number of items subject to compulsory procurement, as well as the government's role in supplying agricultural products at subsidized prices, free markets continued to expand. It was reported that, by the end of 1992, about 70 percent of the total sales of agricultural products took place at market prices.<sup>25</sup> The total number of "free markets" in urban and rural areas doubled from 40,000 in 1980 to 83,000 by 1993 (see Table 3) and the value of trade in these markets increased from 23.54 to 534 billion yuan.

Markets for the exchange of agricultural products in urban areas developed throughout the 1980s (Table 3). From a level of 2,919 in 1980, the number of urban market centers expanded by nearly 15

<sup>21</sup> The relationship between grain officials and local enterprise managers, and between managers and employees varies widely. The explicit or implicit contract depends on the nature of reform in the region, the availability of fiscal resources, the characteristics of the local grain system, and the opportunity for alternative business in the local food economy. Different arrangements were negotiated regarding the degree of continued support for wages, bonuses, and retirement payments, and the assignment of the responsibility of wage and bonus payments to employees. In some cases, wage payments to outlet personnel were halted; wages were fully paid out of the earnings of the local grain station. In others, basic wage packages were still provided for all or part of the staff, but bonuses depended on firm revenues.

<sup>22</sup> McMillan, 1995.

<sup>23</sup> Rozelle, 1996.

<sup>24</sup> McMillan and Naughton, 1991.

<sup>25</sup> International Monetary Fund, 1993.

TABLE 3. Free Markets in Urban and Rural Areas.

Description	1980	1985	1990	1993
Number of markets: .....	40,809	61,337	72,579	83,001
Urban .....	2,919	8,013	13,106	16,450
Rural .....	37,890	53,324	59,473	66,551
Value of transactions (bil. yuan): .....	23.54	63.32	216.82	534.30
Urban .....	2.37	12.07	83.78	256.24
Rural .....	21.17	51.16	133.04	278.06
of which:				
Grain and edible oil .....	3.44	4.96	14.68	34.99
Meat, fowl, & eggs .....	4.21	14.01	61.88	110.25
Aquatic products .....	0.93	3.32	18.24	41.36
Vegetables .....	2.15	4.88	26.42	58.20
Dried and fresh fruits .....	0.75	2.55	18.35	40.32
Agricultural inputs .....	0.71	1.39	2.30	na
Large domestic animals .....	2.65	3.26	3.83	5.67

Source: ZGTJNJ, 1981-1994

percent per year, reaching 13,106 by 1990. During this same period, the size of each market also increased, since the value of transactions increased at a greater rate. After slowing in the late 1980s, the speed of growth resumed in the early 1990s. The number of markets in urban areas increased by 6 percent in 1991 and another 4 percent in 1992. The volume of transaction in each market expanded even more rapidly, nearly doubling in real terms between 1989 and 1992. Total investment in urban infrastructure also expanded in the early 1990s.

The number of registered traders and the amount of their trading capital has also risen continuously throughout the 1980s. There were only 241,000 private and semi-private trade enterprises registered with the State Marketing Bureau in 1980. By 1990, this number had risen to 5.2 million, over 20 times the level of a decade earlier. The average level of capital used by each of these traders also expanded from about 5,000 yuan in 1980 to more than 12,000 yuan in 1990 (although this represents a more modest increase when measured in real terms).

#### RURAL REFORMS

In the rural sector, the pace of grain market liberalization also accelerated.<sup>26</sup> Policy makers reduced mandatory delivery quotas, increased commercialization of the grain system, and raised the procurement price. Policy makers began to experiment with a new set of food economy reforms in the early 1990s as prices fell and grain stocks expanded. In 1990, Guangdong Province officially eliminated all grain and oilseed quotas, and directed grain stations

<sup>26</sup> In addition to the grain-specific reforms, other reforms also affected the agricultural economy. Parastatal control over the trade of sugar, tea, cotton, silk cocoons, and other specialty crops were reduced either by policy or in practice (Sicular, 1995). Fertilizer sales were demonopolized (Rozelle, 1994). Beginning in 1992, government agencies involved in agriculture (e.g., the grain bureau, enterprises set up by agricultural bureaus and seed companies) were allowed to buy and sell fertilizer.

to procure farmers' grain at the prevailing market price.<sup>27</sup> In 1992, farmers in nearly 20 percent of China's counties (mostly in five provinces: Fujian, Shanghai, Zhejiang, Jiangsu, and part of Sichuan) received permission to eliminate mandatory quota deliveries.<sup>28</sup>

While mandatory deliveries were not eliminated in most parts of the country, national grain officials did recommend that this form of implicit tax on farmers be removed. As part of the liberalization, in 1993, the government announced a new policy for grain entitled "freeing the price while fixing the quantity." Farmers still had an obligation to sell a fixed amount of grain and oilseed to local grain stations but under the new policy, the procurement price was to be market-determined. This policy would help reduce the tax burden on farmers, which had become an important policy issue for national leaders.<sup>29</sup>

The low market prices for grain facilitated local compliance with the new policy to procure all grain at the market price. When the policy was announced in late 1992 and early 1993, the average price of rice, wheat, and maize had been falling in real terms for three or four years. Prices of paddy rice and wheat in rural periodic markets in early 1993 were only 60 percent of their 1989 level. As a consequence, the difference between the market price and quota price on average sank to its lowest level since the mid-1980s. The implicit tax for major grains sank to only 100 yuan per ton, a level where the implicit tax on quota grain was only 16 to 29 percent of the negotiated price. In 1992, some procurement stations had stopped accepting delivery of the mandatory procurement quota because it was cheaper to buy grain on the market than at the announced quota price.

For a number of reasons, agricultural market liberalization was held back until the early 1990s and initial indications were that the implementation of market reform was a success. Rural incomes grew faster in the early 1990s compared to the late 1980s.<sup>30</sup> Food supplies to cities were abundant and improved in quality.<sup>31</sup>

In a move paralleling actions in the cities, policy makers commercialized the procurement arm of the rural grain system. Beginning in 1992, officials converted prefectural and county grain bureaus and township grain stations into commercial grain trading companies.<sup>32</sup> Although there is great regional heterogeneity, the typical contract between the grain bureau and the division or station manager resembled those signed with retail shop managers. These grain companies had to continue trading grain and oilseeds and their agreements obligated them to keep all personnel and to support retirees. They also had to carry out certain policy functions such as the procurement of quotas and the handling of grain stocks. Like other commercial concerns, these trading companies were expected to cover operational expenses and pay income tax.

In return, grain companies were allowed to use state-owned assets, the most valuable of which were the storage facilities and

<sup>27</sup> Watson, 1994.

<sup>28</sup> ZGSYNJ, 1992.

<sup>29</sup> Johnson, 1994.

<sup>30</sup> ZGTJNJ, 1992-94.

<sup>31</sup> Huang and Rozelle, 1996.

<sup>32</sup> Crook, 1994b.

truck fleets. They also were guaranteed a certain amount of steady revenue from managing national stocks, and procuring, processing, and trans-shipping grain. However, at times these activities could represent a burden for the grain firms. Profit and cost sharing arrangements, like those negotiated by urban retail outlets, varied greatly among provinces. In most cases, new incentive systems were designed to elicit greater effort from managers and workers. For example, basic wages continued to be paid to grain company employees. Additional wage bonuses now came from profits left after costs were covered and the company paid all grain bureau fees.

Grain traders also were able to use their established procurement and sales networks which had been developed during the planning and earlier reform eras. Grain trading in China during the 1980s had been largely based on planned transfers or negotiated transactions among bureaucrats who became long-time friends. Without well-developed wholesale markets (which still did not exist in many places in the late 1980s and early 1990s), information and trust within a well-connected network was a major asset; not being part of such a network could be a major constraint. For example, newly-commissioned grain traders in a commercialized grain bureau in one remote county on the border of northern Hubei and southern Shaanxi complained about not knowing how to expand their trade. Another trader in a western Liaoning county, however, entered the liberalization era with such a large set of connections that even in the first year of operation his sales force spent most of its time purchasing grain from farmers, small private traders and other grain stations in other counties and arranging for the transshipment of the grain to the firm's customers throughout China.

#### IMPACT OF RECENT MARKET REFORMS

One of the most significant aspects of the market reforms of the early 1990s may be that they went largely unnoticed. There were no sharp negative effects from market liberalization as in Eastern Europe and the Former Soviet Union, where food shortages emerged and agricultural output and income in a number of countries fell by more than 50 percent.<sup>33</sup> Instead, food prices in China in the early 1990s stayed constant or even declined in real terms. There were no major shortages in either urban or rural markets. Production expanded and grain imports fell. Even accounting for the direct wage subsidies provided by the state to urban workers, the proportion of the national budget used for food subsidies fell below 10 percent in 1991 for the first time since 1978. This section explains the impact of the economic policies implemented in the early 1990s.

While definitive quantitative evidence is still not available, developments in the early 1990s show the positive role that market liberalization may have had on rural incomes. The national average rural per capita income in 1989-90 was almost exactly the same as in 1984-85 in real terms (ZGTJNJ, 1993). Since 1991, however, rural incomes have resumed growth, rising by more than 4 percent

<sup>33</sup> Lin, Cai, and Li, 1994.

annually from 1992 and 1995. Real growth in per capita rural incomes exceeded 5 percent in 1992, 1994, and 1995—the highest persistent annual increases since the early 1980s. Between 1985 and 1994 the ratio of urban to rural incomes steadily increased from 1.6:1 to 2.2:1.

Interregional rural income inequality also may have stabilized. Between 1985 and 1990, incomes in many central and western provinces fell or grew sluggishly and erratically.<sup>34</sup> In the early 1990s, however, nearly every province began to experience real growth. According to State Statistical Bureau analyses, Gini coefficients of inter-household inequality fell in nearly every province in 1994, after increasing nationwide between 1985 and 1993.<sup>35</sup> If these developments arise from commercialization and expansion of markets, they are consistent with other observations in Fujian Province;<sup>36</sup> in Shaanxi Province's poorer counties;<sup>37</sup> and in China's Northwest and Southwest regions.<sup>38</sup>

The growth of trade of agricultural products within China's domestic market also expanded in the early 1990s. Despite depressed prices and fairly stagnant production, the volume of total grain traded in the period 1990–92 was more than 10 percent higher than the period 1987–1989. The proportion of free market trade (or procurement by non-state traders) increased throughout the early 1990s (from 10 percent in 1989 to 13 percent in 1992.<sup>39</sup> The proportion of nonvoluntary sales to state grain units also fell from 53 percent in 1990 to less than 45 percent in 1992. The proportion of grain flowing through nonstate channels fell in 1991 and 1992, not because of lower volume, but because of the increased commercial trading by state trading companies.

The increased domestic trade flow also induced local governments in rural areas to establish new periodic markets (Table 3). After expanding rapidly in the early 1980s (the number of markets grew by 7 percent per year; the transaction value by more than 15 percent), growth in both the number of markets and transaction value slowed in the late 1980s. After the market liberalization reforms, the growth of rural markets resumed. Between 1990 and 1992, the number of markets increased by nearly 10 percent and the value of the goods traded rose by more than 25 percent.

New technologies, transportation improvements and changing regional specialization have shaken the foundations of China's traditional domestic trade patterns. Historically, grain always moved from south to north.<sup>40</sup> Nearly all of China's southern provinces generated surpluses which fed the urban residents in the big cities and industrial parts of the Northeast. Few northern provinces had surpluses of grain, and even if they did, the lack of transport and marketing infrastructure in the inland made it nearly impossible to move large quantities of grain out. By the 1990s, rapid market development and other economic forces had almost completely re-

<sup>34</sup> Rozelle, 1996

<sup>35</sup> In addition to commercialization, there may be other factors contributing to this phenomenon. Rising agricultural prices, which are only indirectly related to commercialization, certainly played an important role in the slowdown of China's rural inequality measures.

<sup>36</sup> Lyons, 1992.

<sup>37</sup> Park, Rozelle, and Cai, 1994.

<sup>38</sup> Tong et al., 1994.

<sup>39</sup> ZGSYNJ, 1993.

<sup>40</sup> Brandt, 1989



versed the flow of grain. In the early 1990s, all but one of the country's surplus provinces was north of the Yangtse River. Except for Shanxi Province and the Municipalities of Beijing and Tianjin, all provinces north of the Yangtse River either expanded the size of their surplus or reduced the size of their deficit. In contrast, all provinces south of the Yangtse moved in exactly the opposite direction.<sup>41</sup>

The recent liberalization reforms reduced the budgetary burden of food subsidies. Total agricultural price subsidies fell nearly 50 percent in real terms between 1991 and 1994.<sup>42</sup> With budgets fairly stagnant, price subsidies as a proportion of total revenues fell from 10 to 6 percent during the early 1990s. Urban grain subsidization schemes no longer require central budget support because they were largely eliminated. Fiscal authorities have targeted the funds after 1993 for support of shipping, storing, and handling grain for other central government uses (especially the national grain reserve and welfare and disaster relief programs) and debt retirement.

Spatial grain price patterns across China provides an indication of how well supply and demand price signals are transmitted throughout the country. A necessary condition for competitive markets is a strong tendency for prices in different regions to move up and down together through time. This issue has been recently studied by Rozelle et al.<sup>43</sup> with cointegration analysis using a unique data set collected by the State Market Administration Bureau (SMAB) in Beijing. Every 10 days, more than 180 reporting sites from 28 provinces across China send prices on a number of agricultural commodities to SMAB's information department. The 5–15 individual market prices for each province are aggregated into provincial average prices by the Ministry of Agriculture's Research Center for Rural Economy (RCRE). Rozelle et al. (1996) tested market integration using this price series for rice, wheat, and maize between 1988 and 1995. Prices for rice were available for 23 provinces and municipalities; those for wheat for 6 provinces; and those for maize for 22 provinces. Nominal prices from the SMAB data set were deflated using monthly price consumer price indices calculated and reported by the State Statistical Bureau.

Rozelle et al. (1996) found that marketing and price reforms in the early 1990s have led to a striking increase in the integration of markets. Price variation among markets has fallen and this is one sign of increasing integration. To the extent that the narrowing of price differences among provinces was caused by improved markets, the reforms in the early 1990s appear to have succeeded in their integration goals.

More formal tests of market integration (provided by the cointegration analysis) support these results. While not perfectly integrated, most rice and maize markets have become increasingly integrated after liberalization policies of the early 1990s and this integration continued through the mid-1990s. The number of pairs

<sup>41</sup> In addition to marketization there are other factors which cause traditional trade patterns to change. Across regions, these factors include differing agricultural investment patterns, varying rates of technological change, and differing rates of growth in the non-agricultural sector.

<sup>42</sup> Huang and David, 1993

<sup>43</sup> Rozelle, Park, Huang, and Jin (1996).

of provinces that became integrated went up by more than four times in the rice markets and more than doubled in the maize markets. The number of cointegration coefficients significantly different than zero rose for all crops and the average probability of not being integrated fell for 43 of 45 cases, indicating the widespread impact of the market liberalization effort.

The price trends of rice in Guangdong versus Hunan are of particular interest because disputes over interprovincial trade have occurred periodically between the two provinces over the past 15 years. In 1988 national rice prices began to rise and this was particularly evident in Guangdong. Hunan is a neighboring surplus grain province but officials in Hunan adopted measures to try to keep rice prices low for their own consumers. Blockades were set up on all roads between the provinces. Shipping by rail was restricted by provincial officials. As a result of the great price discrepancy, many farmers began to ship rice by bag, using piece rate on trains. Government official banned the transport of more than 100 kilograms of rice by train by anyone who did not have a permit. Drawn by higher prices, Hunan farmers found it profitable to buy train tickets and haul individual sacks of rice across the border into Guangdong. Between these two provinces, prices clearly stopped moving together in the late 1980s, implying the markets were not integrated.

After 1990, however, prices between Hunan and Guangdong begin to track one another more closely. The pattern of price movement in late 1993 and early 1994 presents a dramatic contrast to the earlier period.<sup>44</sup> In the 1990s when prices in Guangdong rose, Hunan prices followed closely. However, price differences also rose somewhat. From these data it is impossible to know if the larger spread is due to higher transport costs or higher marketing costs caused to increased regulation and interference in markets by government officials.

#### THE 1994-95 FOOD PRICE SHOCK

The success of the market liberalizing reforms in the early 1990s was soon downplayed when food prices began to rise rapidly in late 1993. Food prices went up by 30 percent in one month in the coastal provinces in November 1993.<sup>45</sup> By mid-1994, the average nominal price of rice in rural periodic markets rose more than 70 percent from 1.30 yuan per kilogram to 2.30 yuan. Prices in key urban centers rose faster, nearly 80 percent in Shanghai and over than 90 percent in the markets surrounding Shenyang, Wuhan, and Guangzhou. Adjusting for inflation, rice, wheat, and maize prices all still rose, but much slower. Between late 1993 and the middle of 1995, real rice prices rose by 75 percent and those of wheat and maize by about 60 percent.<sup>46</sup>

Coming so soon after the implementation of the market liberalizing reforms in agriculture, a number of leaders postulated that pol-

<sup>44</sup> See Rozelle, Park, Huang and Jin (1996) for more detail.

<sup>45</sup> Lin, 1994.

<sup>46</sup> However, despite these jumps, real prices of rice and wheat did not recover to the level of the early 1980s until early 1995, a year after the initial surge in food prices. Moreover, at their peak, fine grain prices still were 5 to 10 percent below the 1989 price level. Reflecting in part the rising demand for feed grains, the real price of maize reached a level about 20 percent higher than the historic high.

icy played a role in causing the inflation. Officials believed that removing procurement obligations had led to falling grain sown area. Private traders and unscrupulous quasi-state traders were thought to have drained surplus areas of local stocks. Urban wholesalers were accused of building up inventories in deficit areas. Leaders could not understand why their orders to release grain did not stem the rate of price rises. Most of all there was a general perception that the government had lost control of the food economy and that policy changes were needed to regain influence over food prices.<sup>47</sup>

Since food still accounts for about 50 percent of consumption expenditures by urban residents and nearly 60 percent of the average rural consumption bundle, rapid rises in the prices of so many important food commodities were immediately seen as a threat to price stability. National policy makers started calling for price caps in urban markets. Price controls in cities could lead to short term shortages and therefore officials in many urban areas did not enforce them. In other municipal regions, maximum price controls were quickly moved up by municipal leaders afraid of causing prolonged shortages.

In other moves, national policymakers made provincial governors responsible for feeding their populations and condoned calls for regional self-sufficiency and restrictions on inter-regional shipments. Measures to limit shipments of grain among areas were largely unsuccessful however. Commercialized, quasi-government trading companies acted in their own interests and continued to ship and receive grain despite calls to do otherwise. Profit-motivated urban retail outlets were reluctant to sell low-cost grain since this also cut into their income.

Government officials found themselves facing a policy dilemma. In China's new market order, old policy strategies were not working. Given the new market arrangement, should they retrench on previous progress in liberalizing markets in order to regain direct control of the grain economy with traditional policy instruments or should they attempt to forge a new set of institutions that seek to foster a more responsive set of markets? Alternatively, should they develop new institutions to give the government stronger, albeit indirect, control over grains?

The rapid increase in retail food prices beginning in 1994 and 1995 also generated considerable interest outside of China. Why did grain prices rise so rapidly? Why did grain prices rise so much when a large grain reserve was apparently established in the 1980s?<sup>48</sup> In 1990, published reports in China estimated 490 million metric tons (mmt) of grain stocks.<sup>49</sup>

After three years of retrenchment (1988–91), China experienced another period of rapid economic growth in 1992, which led to double-digit inflation in 1993. For example, the prices of manufactured agricultural inputs increased by 14.1 percent, compared to an annual increase of 3 to 5 percent during the previous three years (1990–92). Prices of fuel and building materials increased by 32.2 percent and 28.2 percent, respectively, in the rural areas in 1993.

<sup>47</sup> Wu, 1995.

<sup>48</sup> For a discussion of grain stock estimates, see Crook (1988 and 1994a).

<sup>49</sup> Crook, 1994a.

These large increases in production costs helped push up food prices in late 1993. The inflation rate was even higher in 1994, as the consumer retail price was reported to have increased by 21.8 percent in 1994, compared with 13.2 percent in 1993.<sup>50</sup>

However, grain and cotton were brought back under tighter state control later that year, and in 1994, fixed procurement quota prices were reintroduced against farmers wishes, retail price ceilings were reintroduced in some urban areas, and exports of rice and corn were curtailed in an attempt to control prices. The 1994-95 food price increases, a perception of loss of government control over agricultural commodity circulation, and continuing market imperfections have raised the need to assess the progress of China's market reform program.<sup>51</sup> Those opposed to reform have argued that the recent breakdown in agricultural pricing policy should cause the government to reassess its commitment to reform, since many believe that market deregulation may have undermined the leadership's ability to intervene in areas which still need to be closely regulated.<sup>52</sup>

The remaining compulsory procurement system makes grain prices very sensitive to local supply and demand conditions. When the policy changed in 1993 it disturbed the imperfect grain market. At the same time, the policies sent the wrong signals to farmers in surplus areas, discouraging them from increasing production the next year. The re-introduction of fixed procurement prices at the end of 1993 was partly responsible for the 2.8 percent decline in grain production in 1994. This occurred, despite sharp increases in market prices.

The central government was concerned with the sharp increase in grain retail prices in the urban areas, out of a fear that it might threaten social stability and economic growth. The government placed a ceiling on retail prices and released 2.5 mmt of grain from reserves. Compulsory procurement was to be strictly enforced again. The signals received by farmers from the local and central governments discouraged grain production, and contradicted the free market signals, leading to a fall in grain production by 2.8 percent in 1994. By mid-1994, the central government placed a ban on rice and corn exports, and later on, several provincial governments prohibited grain shipments to other provinces.

However, as the population continued to grow at 1.1 to 1.15 percent, and per capita real incomes continued to increase (by 7.8 and 5 percent,<sup>53</sup> respectively, in the urban and rural areas in 1994), the demand for food rose. The domestic vegetable, edible oil, and grain markets experienced massive price increases from 1994 to 1995. This was partly due to expectations of provincial authorities and increasingly protective practices by provincial government trading authorities reluctant to allow food products to leave their provincial boundaries. For example, for several months in 1995, Heilongjiang Province, in the far northeast, would not permit soybean shipments out of the province.

<sup>50</sup> Statistical Yearbook of China 1994. Beijing: Statistical Publishing House, 1995.

<sup>51</sup> Duan, 1994.

<sup>52</sup> Chen, 1994b.

<sup>53</sup> RMRB, 31 December 1994.

## AGRICULTURE'S COMPARATIVE ADVANTAGE

Lardy has described the reemergence of China as a significant trading nation.<sup>54</sup> He explains that the commodity composition of trade has changed along with domestic market reforms, and that trade patterns (especially on the export side) are more consistent with China's comparative advantage, compared with the pre-reform and early reform time periods. China has shifted away from petroleum exports and has increased exports of labor-intensive manufactured goods, to the point where manufactured goods accounted for four-fifths of exports in 1993. Lardy notes that the share of primary commodities in total imports fell from a little over one-third in 1980 to about one-seventh by 1993, because food imports did not grow very much over this period while total imports surged.

China was a net grain exporter during the 1950s. However, the sharp decline in grain production during the "Great Leap Forward" (1958–61) turned China into a net grain importer. Grain imports were increased during the first stage of reform (1978–84) to reduce farmers' procurement burden, and to encourage diversification in the agricultural sector.<sup>55</sup> The annual net imports averaged 12.46 mmt during the 1979–83 period. After 1984, following large increases in production and exports, combined with reduced on-farm wastage, annual net grain imports declined to 4.5 mmt between 1984 and 1991. The growth of corn production in northeast China contributed most to the increased grain exports. China exported 7.5 mmt of corn in 1991 and more than 10 mmt in 1992 and 1993, and this turned China into a net grain exporter in the early 1990s. However, when the central government suddenly banned rice and corn exports in late 1994, China resumed its position in world trade as a net grain importer.

Wheat has been the major grain imported by China since 1961, accounting for about 90 percent of total grain imports, on average. The dominant position of wheat in grain imports may be challenged by feed grains, as more and more meat and dairy products will be demanded by consumers following income growth.

China was both a large rice exporter and importer in the last decade. Average annual exports during 1980–91 were 743,000 metric tons (mt), while average imports were 309,000 mt. Net annual exports were around 434,000 mt, on average. As the total world trade in rice was around 12 mmt per year during this time period, China's shares were about 6 and 4 percent, respectively, for total and net exports.

For many countries, during the process of economic growth, the nation's comparative advantage in agriculture declines, and this is expected to happen in China. For those nations where arable land is scarce, the comparative advantage in agriculture tends to decline more rapidly.<sup>56</sup> Generally speaking, the comparative advantage of China's agricultural sector has been declining for land-intensive crops. It is likely that China's net grain imports will increase in the

<sup>54</sup> In addition to Lardy (1994), refer to West (1993) for an in-depth discussion of China's trade reforms and trends in China's international trade patterns.

<sup>55</sup> Carter and Zhong, 1991.

<sup>56</sup> Anderson, 1990.

future, with the composition gradually changing. In the long run, some shifting in imports, from food to feed grains, seems inevitable.

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# CRISES AND INSTITUTIONAL EVOLUTION IN CHINA'S INDUSTRIAL SECTOR

By Wing Thye Woo\*

## CONTENTS

	Page
Summary .....	162
Background to the Post-1978 Reforms .....	163
Relaxation of Centralized Allocation—Decentralized Socialism .....	164
Relaxation of Centralized Ownership—Localized Socialism .....	167
Problems with the Collective Ownership Form of TVEs .....	169
Possible Future Evolution of the Industrial Sector .....	171
References .....	174

## SUMMARY

China's adoption of the Soviet economic model upon the founding of the New China in 1949 was a big mistake. Thanks to the pragmatism of the leadership that took over from the ultra-leftist Gang of Four, serious reforms of the industrial sector started in 1979 and accelerated in 1984. While these reforms had a little success in solving some of the problems, they also created a class of new problems. To oversimplify, the old but still unsolved problems centered around the lack of efficiency and innovation, and the new problems centered around the rise of inflation and corruption.

There was a slowdown in the reform of the industrial sector shortly before the 1989 Tiananmen incident. But the unsolved old problems and the post-1978 new problems together quickly created an economic crisis that made the maintenance of the status quo politically untenable. Partly in response to the crisis, new changes to industrial institutions (e.g. stock issuance and sale of state assets) were enacted in a few parts of the country without explicit clearance from the central leadership. Faced with the choice of either sponsoring these new changes at the national level and hence, maybe, leading the way out of the economic crisis, or suppressing these local initiatives without proposing alternatives, the central leadership opted for the former. The choice was a natural one because there was common recognition that the post-1978 market-oriented reforms had brought unprecedented prosperity to China in a short time period.

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The 14th Party Congress, held in October 1992, pronounced the final objective of economic reforms to be a "socialist market economy with Chinese characteristics"; the qualifying phrase effectively freeing the leadership to pursue a non-traditional course. In November 1993, the Third Plenum of the 14th Party Congress outlined a program to establish the socialist market economy. One of the most significant premises of the program was that the ambiguous property rights of state-owned enterprises (SOEs) were an important cause of their poor performance.

The current discussion within the government on SOE reform is limited by the ideological commitment to continued state domination of the commanding heights of the economy. Since a small number of large and medium SOEs produce the bulk of the total output of the state industrial sector, the definition of a socialist market economy would be satisfied by the practice of "holding on to the bigger SOEs and letting go of the smaller SOEs." This new Party line allows for a considerable range of reform policies toward the industrial sector. For example, the most progressive interpretation within the government is that the state will keep the ownership only of the 1000 largest SOEs; and the most conservative interpretation is that the state will privatize all the 84,000 small SOEs, but maintain ownership of the existing 5,000 large SOEs and 13,000 medium SOEs.

This paper assesses the response of China's industrial sector to the post-1978 reforms, and offers an opinion on the likely evolution of the industrial sector.

#### BACKGROUND TO THE POST-1978 REFORMS

The essence of the Soviet economic model adopted by China in 1949 was the allocation of resources by fiat and the complete ownership of assets by the central government, acting on behalf of the entire population. Soviet socialism, in short, was defined by the central government centralizing all production decisions and all property rights. The central plan and the state-owned enterprise (SOE) were the ultimate expressions of these two defining characteristics.

An SOE in a centrally-planned economy was a passive production unit. Profits were of no operational consequence to the enterprise because they were created by the prices and production quotas set by the planning agency and had to be transferred in their entirety to the supervising branch ministry. This near-total absence of incentives to SOEs to optimize resource utilization and to innovate led inevitably to low (negative, in some cases) technical progress, i.e. total factor productivity growth.

The post-1978 reform of the Chinese industrial sector can be described as the relaxation of centralized allocation and centralized ownership. The relaxation of the central plan took the form of transferring production, pricing and investment decisions to the SOEs, and introducing a profit-sharing scheme between the state and the SOE personnel. The relaxation of centralized property rights took the form of reducing legal discrimination against the establishment of non-state enterprises, enterprises that are not owned by the entire population.

## RELAXATION OF CENTRALIZED ALLOCATION—DECENTRALIZED SOCIALISM

The first Chinese policy response to the efficiency crisis in the SOE sector was similar to the pre-1990 reform efforts in Eastern Europe and the former Soviet Union. The reform strategy was to introduce elements of a market economy within the existing system of centralized property rights, i.e. experiment with decentralized socialism. The operational autonomy of the SOEs was expanded over time as earlier ones failed to produce the desired levels of efficiency.

Specifically, the following sequence of piece-meal SOE reforms were implemented in China: the right of the enterprise to retain a portion of its profits and dispense it for bonus and welfare expenditure, the right to sell an increasing proportion of output in the free market, the right to introduce new products, the right to raise funds for investments of its own choice, the right to fire workers, and the right to file bankruptcy (the last two rights were never seriously exercised). The surprising consequence of this steady increase in enterprise autonomy in China was a steady deterioration in the profitability of the SOEs. Almost half of the SOEs ran operating losses in 1994 and 1995, and the SOE sector actually ran a net loss in the first quarter of 1996.

Fan, Hai and Woo (1996) and others have suggested that the post-1978 enterprise losses came from the reduction in the ability of the branch ministries to supervise the firms. The freeing of SOEs from the prices and quantities set by the branch ministries meant that the only information on the financial performance of SOEs came from the SOEs themselves. Since the SOEs now had expenditure autonomy, their managers came under great pressure from the workers to grant increases in direct compensation (wages, bonuses and various subsidies) and indirect compensation (e.g. housing, recreational, transportation and dining facilities, and distribution of household goods) that exceeded the growth of labor productivity. The managers generally yield to such demands because the workers could exert political pressure through the factory's Party secretary, who typically had a voice in the promotion of the manager; and, furthermore, any resulting losses would automatically be covered by the state, e.g. by allowing the loss-making SOE to keep the sales taxes it collected.

Even if the salary of the manager were linked to the amount of profits turned over to the state, his incentive to maximize profits is blunted because he could always compensate himself by hiding his consumption expenditure (e.g. cars and banquet) as production costs. Hence, the first result of the decentralization reforms was the over-consumption phenomenon where the profits were converted into business expenses. The over-consumption by SOEs directly reduced the revenue of the state and increased inflation to the extent that the state monetized the larger budget deficit. The fiscal crisis of the state meant that the infrastructure investments needed to relieve production bottlenecks could not be undertaken, threatening both growth and price stability.

Some observers have attributed the collapse of SOE profits to the emergence of competition from new non-SOEs.<sup>1</sup> This claim is plausible only for small SOEs in some light industry sectors. The fact is that SOE profits have collapsed even in sectors and regions with little entry by non-SOEs. For example, Elliott Parker (forthcoming) found that large state firms that specialized in big construction projects which had little competition from non-state firms actually experienced a faster decline in profits than medium state firms.

The second result of the decentralization reforms was the appearance of over-investment. SOEs sought to increase future consumption by increasing future output, and that meant increasing current investment. Investment was always undertaken beyond prudential levels because managers recognized that the fruits of successful investment could be captured by the SOE employees through increases in compensation and that the losses of unsuccessful investments would be transferred to the state budget. The SOEs' high demand for investment credit has usually been accommodated by the state banks because the state banks having been decentralized themselves faced the same situation of being able to privatize their profits and to socialize their losses. The resulting explosion of investment credit has added to the inflation.

Both over-consumption and over-investment are the natural consequences of what has aptly been called "the soft budget constraint." The crux is that the state treasury or central bank had to finance the losses of SOEs because it could not avoid guaranteeing the financial integrity of activities undertaken under the name of the state. This faith on the part of the SOEs in an eventual bailout by the state is the cause of the large increase in inter-enterprise arrears whenever a tight credit policy is pursued to reduce inflation.

In the wake of the tight monetary policy adopted in mid-1993, the explosion of interenterprise arrears among industrial enterprises raised the average period of delay in payment to 114 days in 1994 from 27 days in 1992, and the ratio of inter-enterprise arrears to industrial GDP to 43 percent from 20 percent; Fan (1996a and 1996b). These inter-enterprise arrears allowed the SOEs to continue their operations as usual without the benefit of bank credit. As the Chinese government has repeatedly expanded credit to clear these inter-enterprise arrears, it has effectively compromised the credibility of future attempts to impose hard budget constraints on the SOEs.

The loss of financial control over SOEs by the branch ministries represents de facto privatization of SOE income streams by SOE employees, particularly by the managers. Recent news accounts from China make it clear that the loss of state assets has reached crisis proportion. In December 1995, the State Administration of State Property reported that asset-stripping in the SOE sector "has been about 50 billion yuan [annually] since the early 1980s."<sup>2</sup> This

<sup>1</sup> The evidence offered by the proponents of this view against the overcompensation hypothesis usually ignored the indirect compensation and various subsidies received by SOE personnel.

<sup>2</sup> "State Asset Drain Must End," *China Daily*, December 13, 1995. See also "State Toughens Stand To Protect Its Possessions," *China Daily*, June 2, 1995; "Asset Checks Can Stop Fiddlers," *China Daily*, June 7, 1995; and "Market Investigated for Losing State Assets," *China Daily*, June 2, 1995.

would mean that the cumulative loss of SOE assets in 1983–1992 was equivalent to some 24 percent of the original value of fixed assets in the SOE sector in 1992, or some 34 percent of the net value of fixed assets in the SOE sector.

This large-scale embezzlement by the managers could well lead to social unrest and erode the political legitimacy of the Chinese government. After all, the rallying cry for the 1989 Tiananmen demonstrations was to reduce inflation and corruption. And the over-consumption and over-investment of the SOEs generate both outcomes naturally.

While the financial weakening of SOEs in China under decentralization reforms is obvious, the effects on production efficiency are less clear. On one hand, one would expect an SOE manager to implement efficiency-enhancing measures, partly in response to the competition from the new non-state firms, and partly in order to generate more surplus that they could divert to themselves. On the other hand, since profits could also be generated by favored access to rationed (low price) inputs, exemption from taxes, and special retention of foreign exchange earnings, the SOE manager might continue the old habit of seeking favors from the government.

The evidence on efficiency improvements in Chinese SOEs is mixed. Some studies have found positive total factor productivity (TFP) growth in SOEs, while others could not find reliable evidence of it. Even if one believes the former, one cannot applaud the outcome without having to adopt a double standard. The fact is that the TFP growth rate in the SOE sector is at best only half of the TFP growth rate in the non-state township-village enterprise (TVE) sector, 2.4 percent and 4.6 percent respectively according to Jefferson, Rawski and Zheng (JRZ, 1992).

Using different data sets, Huang and Meng (1995) found the annual TFP growth rate for SOEs to be -5 percent in the 1986–90 period; Woo, Hai, Jin and Fan (WHJF, 1994) found it to be zero in the 1984–88 period; and Parker (forthcoming) found it to average 1 percent in the 1985–1991 period and decline over time. Parker found direct evidence against the effectiveness of the decentralized reforms: the center-supervised SOEs were more efficient than province-supervised SOEs, even though the former had less operational autonomy.

When WHJF deflated their intermediate inputs in the same way as JRZ, they found the same result, 2.4 percent for TFP growth. However, WHJF found that the JRZ deflation method caused the implicit deflator for the value-added (VAD, value-added deflator) of SOEs in their sample to decline secularly throughout the sample period when the Consumer Price Index (CPI) was rising pretty strongly. As such an opposite trend between the CPI and the VAD is internationally unprecedented, we believe the “success story” findings in a number of recent papers to be implausible.<sup>3</sup>

Recently, Woo (1996) found that:

<sup>3</sup> According to Naughton (1994), the deflation procedure in Groves, Hong, McMillan and Naughton (1995) also produced a declining VAD. Groves, Hong, McMillan and Naughton (1994) also used this deflation procedure.

1. The ending of the economic incoherence generated by the Cultural Revolution caused a one-time catch-up in the efficiency of SOEs during the 1978–84 period; and,
2. After that initial rebound, the incremental decentralization measures introduced since 1984 have failed to induce the industrial SOEs to improve their efficiency on a sustained basis.

These two findings imply that a study that finds positive TFP growth in industrial SOEs in the post-1978 period would find zero TFP growth after dropping the 1978–84 period from the estimation; and hence reconcile the findings of positive TFP growth in SOEs in the pre-1985 period<sup>4</sup> with the findings of zero TFP growth in the post-1984 period.

A recent field trip to the industrial city of Chongqing by Chen (1996) suggests that the SOEs are still mired in the traditional socialist mode of operation. Chen found:

Factory directors continue to be appointed by higher authorities, and workers cannot be easily dismissed . . . A disciplined labor market in general is absent . . . [One enterprise] must resort to locking the factory gate to prevent workers from leaving their jobs before lunch hour, for example, because if one does leave, the management will be unable to decide [on] a severe punishment [for] the worker who is most likely a neighbor of several decades.

Overall, it appears that the story of SOE rejuvenation through decentralized socialism has been greatly exaggerated in several recent academic articles. Our assessment is that the total evidence is typified by Parker's (1995) finding on state-owned construction firms: "the general response to reform is either negative, insignificant, or inconsistent." What is reasonably known is that the decentralization reforms have:

1. Allowed the SOEs to weaken the fiscal position of the state and obtain excessive bank credits, hence undermining price stability;
2. Produced social tensions because of the inequitable appropriation of income streams by SOE employees; and
3. Induced little, if any, efficiency improvements in the SOEs.

These three problems explain the occurrence of decentralization-recentralization cycles in China, and the trenchant Chinese summary of their SOE reform experience as "chaotic upon loosening, and moribund upon tightening (*yi fang jiu luan, yi zhua jiu si*)."

#### RELAXATION OF CENTRALIZED OWNERSHIP—LOCALIZED SOCIALISM

Loosely speaking, there have been two ways of establishing non-state enterprises. The first way, which is associated with Eastern Europe and Russia since 1990, is to place almost equal emphasis on privatizing existing SOEs and promoting the formation of new private enterprises, e.g. individual-owned enterprise partnerships, cooperatives, and joint-stock companies.

<sup>4</sup> Chen, Wang, Zheng, Jefferson and Rawski (1988), Dollar (1990), and Minami (1994).

The second way, which is associated with China since 1979, is to preserve the existing SOEs as much as possible, while allowing the formation of, one, new enterprises that are owned *collectively* by the local community, and, two, new private enterprises. The collective-owned enterprises (COEs) represent *localized socialism* because a significant amount of the shares are jointly owned by the local community, and that while workers may hold some of the COEs' shares, these shares are not legally transferable to non-workers. The most numerous and well-known of COEs are the rural ones known as township and village enterprises (TVEs). Until the early 1990s, TVEs faced much fewer legal discriminations than private rural enterprises, e.g. TVEs faced lower tax rates and easier registration procedures. The SOEs are in turn preferred over TVEs, e.g. SOEs have much easier access to credit from state banks and it was only from 1987 onward that most TVEs were allowed to participate directly in international trade.

The foundation for the TVEs was laid during the decade-long Cultural Revolution when the official emphasis on self-reliance and the breakdown of the national distribution system caused the rural communes to expand their non-agricultural activities. The concern for rural underemployment led to increasing liberalization of the regulations governing the formation of non-agricultural enterprises, particularly those that were registered as collective-owned. Since 1984, the terms of approval and supervision of TVEs have varied greatly across regions.

There are three main types of TVEs. The first type of TVE form is where the local authorities exercise tight controls over TVEs, and this has come to be known as the Jiangsu Model because of its concentration in southern Jiangsu province. A firm could obtain TVE status only if its initial investment was entirely from community funds; and wage rates were not allowed to differ sharply across firms. The Jiangsu authorities protected the TVEs by limiting the number of partnerships and individual firms that could be set up.

The second type of TVE form is known as the Zhejiang Model. The local governments in Zhejiang province, although the majority shareholders in many TVEs, normally refrain from intervening in the investment, dividend and personnel decisions of the TVEs provided that the enterprises make annual contributions to the village funds. Since the Zhejiang TVEs have complete operational autonomy and their financial ties to their communities are indistinguishable from the taxes that a private firm is required to pay, they are essentially "private" in their operations.

The third TVE form is where a private enterprise masquerades as a TVE. The entire capital of the enterprise is from one individual or a small group, and it pays a fee to the local authority in order to be allowed call itself a TVE, a charade that is popularly referred to as "wearing a red hat." The main reasons for the desire to disguise the true ownership are lower tax rates, easier approval procedures, discrimination against privately-produced products by state-owned retail stores, less restrictions on the size and operations of the enterprise, and shelter against possible reversal in the political fortunes of the reformers.



Until the 1990s, the Jiangsu model was considered the best TVE form because it was closest in its adherence to traditional socialist concepts. However, like the traditional SOEs, the Jiangsu-type TVEs soon ran into financial problems. The result was:

In the second half of . . . [1992, the local governments in southern Jiangsu] transferred the operation rights of some deficit ridden small-scale State or publicly-owned enterprises to private businessmen through rental or auction sales. ("Successfully Combining Socialist Market Theories," *China Daily*, December 15, 1993.)

The above taxonomic discussion makes it clear that it is hard to be precise about the nature of TVEs. It is important to stress the vagueness about the ownership and control of TVEs, the great variety of TVEs and *the evolving nature of TVEs*.

All three forms of TVEs are fundamentally different from SOEs in three important ways. The first difference is that TVEs face less of a principal-agent problem than the SOEs because of shorter supervision distance. The direct linkage in TVEs between local people's working efforts and their economic benefits not only reduces the cost of supervision but also improves the local owners' incentives to monitor the management.

The second difference is that TVEs face hard budget constraints. Being a non-state enterprise means that the rescue of a bankrupt TVE is not the state's responsibility. In the last economic downturn, the number of industrial TVEs fell from 7.7 million in 1988 to 7.2 million in 1990 while the number of industrial SOEs increased from 99,000 to 104,000.

The third difference is that TVEs can implement institutional innovations without the approval of the central government. The recent locally-initiated transformation of TVEs into "share-holding collectives" has enabled them to move closer to best international practices in corporate governance.

#### PROBLEMS WITH THE COLLECTIVE OWNERSHIP FORM OF TVEs

By any account, the TVE sector is unusual by international standards. In most countries with rural industry, such as Indonesia, ownership of small enterprises is private, often within a family. By contrast, TVE ownership is collective, at least officially. This has given rise to many debates among academic scholars and policymakers.

Some scholars have argued that collective ownership reflects deep Chinese cultural patterns. The dominance of private enterprises in rural Taiwan appears to refute this "cooperative culture" hypothesis, however. Other scholars have said that collective ownership is necessary because China lacks a sufficient number of entrepreneurs to develop on the basis of private ownership. Still other scholars have said that collective ownership is an effective way to raise capital funds for rural enterprise and to reduce the principal-agent problem by shortening the supervision distance.

We are skeptical of these explanations, at least as a general theory of TVEs. In our opinion, an adequate theory will have to be based on the following three considerations. First, and most obviously, private ownership was basically prohibited in many areas

until recently. Therefore, collective ownership of rural industry arose because no other forms of ownership were permitted. Second, TVEs faced lower tax rates and less regulations than private enterprises. Third, the collective ownership reflected the low labor mobility in the countryside, largely because of the household registration system. Community ownership was possible because the community members expected to remain in the same place indefinitely, and there was virtually no inward migration.

There are some major problems with the collective ownership of Chinese rural enterprises. One is that collective ownership invites political intervention by the local government in the workings of the enterprise. While some economists have praised this political intervention as essential to promoting enterprise formation, we note that the local government can also stifle the healthy development of the enterprise. There are innumerable stories of local officials demanding bribes or personal services from the rural enterprises. Also, good managers are sometimes forced out of rural enterprises by local officials who favor family members or other political allies. These kinds of intervention have a very long history in China, dating back for centuries. The famous China historian, John Fairbank (1992, pp181–182), has even claimed that local bureaucratic intervention in rural industries was a major reason why China did not develop a vigorous market economy in past centuries.

In a sense then, the TVEs reflect a long-standing pattern in Chinese economic history: rural enterprises under the control of local bureaucrats. The risks are the same as in past centuries as evidenced by the following recent news report:

Who really owns township enterprise is a burning question which must be answered. In rural enterprises sponsored by local communities, such as township or villages, the property right belongs to the whole community, but to no individual in particular. As a result, the community leadership randomly interferes with the enterprises' internal management, thus preventing the workers themselves from bringing their initiative into full play. ("Who Really Owns the Township Enterprises?" *China Daily*, June 6, 1994.)

Another problem is that the risks of collective ownership become much greater when mobility in the society increases. With more and more households moving within China, it does not make much sense to make financial investments mainly within one's own community. Currently, when a worker leaves the community, he cannot take his "share" of the TVE with him. It remains within the village, as part of the community property. The result is to limit mobility, and also to increase the risks facing a family if they are forced to move for one reason or another.

Still another problem is that collective ownership is the opposite of risk diversification. The community puts its wealth into the enterprises in the community. Its residents can end up losing everything—their jobs and their savings. A better strategy, therefore, is for the worker to diversify his risks, by investing in financial assets unrelated to his workplace.

Collective ownership also limits the scale of operations of the enterprise. Currently, a TVE can grow as a result of new investments by the community (including reinvestment of profits) or through bank loans. It is very difficult, however, to get new outsider investors in the TVE, since the property rights of those outside investors would not be well defined or well protected. The outside investor would also be afraid that the local government would manipulate the profits of the enterprise for the advantage of the community, and against the outside investors. The result of this is that many TVEs will fail to grow to an efficient scale.

Collective ownership also prevents a market from developing managerial control. Suppose that a rural entrepreneur has a good idea for a new enterprise. Perhaps he can convince a township government to support him, but it is possible that he will be unable to do so. In a normal market economy, he would be able to raise his own money to start the business, or would be able to purchase an existing business. Both of these options are currently very difficult in China, because of the heavy emphasis on collective ownership.

Conversely, suppose that an existing enterprise has a bad manager, but one that is favored for political reasons by the local government. This manager will be protected in his job. In a normal market setting, an outside buyer might approach the owners of the business and make a takeover bid, replacing the manager after buying the enterprise. This is nearly impossible with the collective ownership of the TVEs.

These various problems suggest one conclusion: entrepreneurship will not be adequately promoted in the long run unless there is much wider scope for truly private enterprise. With collective ownership, entrepreneurs will not receive adequate compensation, and the marketplace will do a poor job in promoting good entrepreneurs and punishing bad ones.

#### POSSIBLE FUTURE EVOLUTION OF THE INDUSTRIAL SECTOR

The Chinese experience shows that the marketization of the production of SOEs without the marketization of their property rights destabilizes the economy through inflation and the political situation through corruption. There is now common recognition in China that successful enterprise restructuring requires the decentralization of property rights. The efficient decentralization of property rights involves both the privatization of existing SOEs and the promotion of the non-state sector.

China has moved more decisively in the direction of decentralizing the property rights of the SOEs. In November 1993, the 14th Central Committee of the Chinese Communist Party (CPC) stated:

Large and medium-sized State-owned enterprises are . . . to experiment with the corporate system . . . [in order to enable] the State to get away from its unlimited responsibility for the enterprises . . . As for the small State-owned enterprises, the management of some can be contracted out or leased; others can be shifted to the partnership system in the form of stock sharing, or sold to collectives or to individuals. (Decision of the CPC Central Com-

mittee on issues concerning the establishment of a socialist market economic structure, *China Daily*, Supplement, November 17, 1993).

There are now 25 official property rights exchanges and about 150 unofficial property rights exchanges where state assets are sold to the public, with the latter disappearing temporarily whenever there appears to be a swing back to more orthodox socialism at the center (Fan, 1995). Recent reports indicate that full-scale sales of small and medium SOEs have occurred in several places. The most well-known example is Zhucheng city in Shandong province, which started privatizing SOEs in 1992 when two-thirds of its SOEs were losing money or just breaking even.<sup>5</sup> Almost 90 percent of county-supervised SOEs in Zhucheng have already been privatized. Sichuan province has been steadily selling off money-losing SOEs, and Guangdong province has been selling profitable SOEs as well in order to finance local infrastructure and clear the debts of unprofitable SOEs to prepare them for sale. Heilongjiang province has just announced plans to privatize 200 SOEs after having sold 160 successfully.<sup>6</sup> China has certainly not been an exception to absorbing the positive international experience with privatization of SOEs.

The quick growth of the TVE sector should not be taken as an indicator of the adequacy of that organizational form. The fact is that, under the planning system, China had a great shortage of small enterprises. Therefore, as soon as small rural industries were allowed to develop, they tended to grow rapidly, to fill the gaps in the planning system. Poland provides a vivid example of this rapid growth. The number of small businesses in Poland grew from 700,000 in 1989 (the eve of Poland's radical reforms) to 1,800,000 in 1993, boosting employment in small businesses from 1.2 million in 1989 to 3.2 million in 1993. In 1993, both the Polish small businesses and the Chinese TVEs employed around 20 percent of the labor force, with the difference being that Poland achieved this employment transformation in four years compared to the fifteen years taken by China.

There has been a recent development that has pushed the TVEs to "clarify" their property rights. The capacity expansion of many of the coastal TVEs in southern China has forced them to rely increasingly on migrant labor from the poorer provinces. The original inhabitants want to prevent the new residents from having an automatic share in the dividends of the collective-owned enterprises, and so they have corporatized the TVEs and divided the shares among themselves. The fact that the government has not clamped down on what could be the first step in de-collectivizing the TVEs (legal de-collectivisation occurs when the shares are transferable to non-residents) has been viewed as implicit approval, and this has accelerated the conversion of TVEs to shareholding co-operatives.

Furthermore, with the further relaxation of discrimination against private ownership since early 1992, many TVEs are taking off their "red hats," albeit with difficulties in many cases:

<sup>5</sup> "China City Turns Into a Prototype for Privatization," *Wall Street Journal*, June 10, 1995.

<sup>6</sup> "Heilongjiang Puts 200 Firms on the Block," *China Daily*, June 7, 1996.

As China heads toward a market economy, an increasing number of private companies are no longer feeling the need as register as "red cap," or collectively-owned ventures . . . [because the] difference in preferential treatment between private and public units has been narrowed. . . . But there is a problem. The collective units are now arguing that private firms could not have developed without their help. As the so-called "owners" of the companies, the State firms usually ask for high compensation for the "divorce" or ask the companies to merge with them. ("Private Firms Jump To Take 'Red Caps' Off," *China Daily*, November 4, 1994.)

The spurt in investment in TVEs since early 1992 may well be caused by the clearer signal from the authorities that the Stalinist abhorrence toward private ownership will decrease further in the near future. The fact that there are informal markets for these legally non-transferable shares speaks volumes about popular expectations about the future institutional structure of today's TVEs. The TVE experience, in short, suggests that localized socialism is not a viable third way to the stark choice between centralized socialism and private property. The TVE is a transitional form created by the heavy legal discrimination against the latter.

There is no doubt that the Chinese leadership recognizes that the performance of the industrial sector would be improved by the privatization of SOEs and the establishment of more new private enterprises. In light of, one, the social acquiescence to the large-scale privatization in a number of areas, and, two, the critical financial situation in the SOE sector (which posted an unprecedented overall net loss of 3.4 billion yuan in the first quarter of 1996), it is highly likely that there would be more privatization of SOEs in the near future. Almost surely, when the privatization occurs, it would be under a terminological haze that could, for example, describe the creation of a shareholding corporation by an SOE going public as progression from "state socialism" to "people's socialism."

The present leadership also recognizes that unless the financial situation of the SOEs is improved, many other key reforms will have to be put on hold. In 1994, the state banks were ordered to operate on commercial principles because they would no longer be directed to extend cheap policy loans to SOEs. However, when the SOE sector began running a net loss in early 1996, the state banks were ordered in mid-1996 "to satisfy the funding demands of the large and medium-sized State enterprises."<sup>7</sup>

The lesson is that piece-meal reform, even when implemented at the more aggregative level of sector by sector, is inherently contradictory. Experience shows that there cannot be viable reforms of the SOEs without instituting new mechanisms to take over their social welfare functions, and there cannot be viable reforms of the financial sector when its primary clients lack the incentives to be financially prudent. "What is to be done" is clear, especially given the wealth of reform experiences to be drawn on from other transition economies and the fast growing capitalist economies of East and Southeast Asia. As long as Dengist pragmatism continues to

<sup>7</sup>"Central Bank Urges Support for Faltering Enterprises," *China Daily*, July 8, 1996.

be the trademark of the Chinese leaders, we expect them to soon mobilize the enthusiasm of the masses to decentralize property rights further and support comprehensive reforms in order to institutionalize the socialist market economy *with Chinese characteristics*.

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# OWNERSHIP REFORM AS A PROCESS OF CREATIVE REDUCTION IN CHINESE INDUSTRY

By Gary H. Jefferson and Inderjit Singh \*

## CONTENTS

	Page
Summary .....	177
Introduction .....	177
Persistence of Institutional Weaknesses .....	179
Incomplete Specification of Property Rights .....	179
Extensive Social Obligations .....	179
A Weak Financial System .....	180
Ownership and Performance .....	180
The Dominant Role of Public Enterprise .....	181
The Improving Performance of State Industry .....	182
Structure .....	184
Conduct .....	184
Performance .....	185
Profitability .....	185
Profit .....	187
The Institutional Context for Enterprise Reform .....	189
Decentralized Supervision .....	190
Incipient Competition .....	191
Fiscal Dependence on Industrial Profits .....	191
Chinese Industry as a Hierarchy of Heterogeneous Enterprise Types .....	192
Chinese Economic Reform as a Process of Creative Reduction .....	192
Government Initiation of Partial Reform Measures .....	192
Partial Reform: Destabilization of Outcomes and Intensification of Competition .....	193
Competition To Reduce Profitability .....	193
Response to Financial Pressures .....	194
Government Reaction to Financial Pressures and Enterprise Lobbying .....	194
Feedback Effects: Acceleration of the Impact of Reform .....	194
Effect of Experience on Attitudes, Expectations, and Behavior .....	194
Outcomes of the Process: Enterprise Reform and Creative Destruction .....	195
Growth of the Periphery .....	195
Restructuring the PE Sector .....	196
Effect Exit from the State Sector through Conversion and/or Liquidation .....	197
Conclusions .....	199
References .....	200

## TABLES

Table 1. Chinese Industrial Performance, Real Output Growth 1980-1992 .....	181
Table 2. Shares of Output in Total Industrial Output .....	181

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Table 3. Growth Accounting for State and Collective Industry, 1980–1992 .....	186
Table 4. Rates of Growth of Capital Productivity .....	186
Table 5. Productivity of State Enterprises by Performance Category: Conversions and Loss-Makers .....	187
Table 6. Profit Rates of Different Ownership Types .....	188
Table 7. Total Losses in State-Owned Enterprise .....	188
Table 8. Industrial Output Composition for State Owned Enterprises by Industrial Branches .....	193
Table 9. Impact of Performance on Reform .....	198

## FIGURE

Figure 1. Histogram of Decision-Making Authority in Chinese Enterprise .....	183
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## SUMMARY

China's industrial reforms have stood on three legs—growth of the nonstate sector, restructuring, and exit from the nonstate sector to other ownership types. We describe these avenues of reform and evaluate enterprise performance by ownership type. Most important, we see enterprise reform as the outcome of an underlying process of Creative Reduction which has substantially reduced the role of the state in Chinese industry, even in the absence of widespread privatization and liquidation. We describe how certain initial conditions in China's economic system are giving rise to various pressures that are motivating deep institutional change in China's industrial economy.

INTRODUCTION<sup>1</sup>

The reform of China's state-owned enterprises stands at the core of the next phase of China's economic reform. The conditions that make state enterprise reform so crucial include the following:

1. Net profits are comparatively low; in 1995, approximately 44% of China's industrial state-owned enterprises (SOEs) incurred losses amounting to one percent of GDP;
2. State-owned enterprises capture approximately twice their share of investment resources relative to nonstate industry on which they generate a substantially lower return to investment;
3. The continuing need for "policy loans" and lending at below-market rates hinders reform of the financial system and overall macroeconomic management; and
4. Soft budget constraints and the blockage of exit through the absence of effective bankruptcy law create moral hazard problems within state enterprises that retard incentives and thereby reduce the potential for successfully restructuring state industry.

In their monograph, *Public Enterprise Reforms in Transitional Economies*, Gelb and Singh (1994) identify three "pure" strategies for reducing the burden of the public enterprise (PE) sector. These are:

<sup>1</sup>This paper draws on materials from Gelb and Singh (1994), Jefferson and Singh (1996), and Jefferson and Rawski (1995, 1996b). Ongoing research in this area has benefited from the support of the World Bank, the Henry Luce Foundation, the William Davidson Institute, the American Council of Learned Societies and the Chiang Ching-Guo Foundation. We appreciate the thoughtful contributions of Tom Rawski as background to this paper.

1. "Grow out of" the PE sector, and so reduce its weight in the economy. This is easiest if the PE sector is not too large initially and the private sector grows rapidly;
2. Restructure the PE sector to raise efficiency. This has two aspects:
  - a) change the environment of the PEs: liberalize product markets, harden budget constraints, eliminate subsidies, etc. The aim is to encourage a decentralized process of enterprise-level restructuring; and
  - b) change the corporate governance of the PEs: introduce management contacts and incentives, corporatize, restructure the PEs from above, using the state's ownership prerogative, etc.
3. Effect exit from the PE sector, through privatization and/or liquidation.

This structure is useful in that it presents three analytically distinct or "pure" options. In its tilt toward the experience of Eastern Europe, however, the Gelb-Singh framework departs from the Chinese situation in three important respects.

First, it does not recognize the pervasive influence of publicly-owned nonstate enterprises, particularly those in the collectively-owned township and village enterprise (TVE) sector. Although less than one-third of China's industrial output now originates from state-owned industry, it and collective-owned industry together account for more than two-thirds of industrial production. These township and village enterprises, for the most part public owned, have been instrumental in driving China's dramatic industrial transformation.

Second, in China, the conversion of state enterprises, as contrasted with their restructuring, generally does not entail either privatization or liquidation. The absence of an effective bankruptcy law and policy and financial restrictions on widespread privatization of state enterprises means that most conversions entail shifts to new ownership types that retain substantial public ownership.

Third, and most important, the Gelb-Singh perspective views enterprise reform as a strategy or policy event, i.e. "restructuring the PEs from above." In China, however, enterprise reform can be most usefully understood as a *process*. The reform avenues described by Gelb and Singh are outcomes of this process; in order to understand specific reform scenarios, it is necessary to understand the process that motivates these scenarios. Despite these shortcomings of the Gelb-Singh framework for public enterprise reform, it does capture three important aspects of enterprise reform. We retain it as a useful starting point for analyzing ownership reform in Chinese industry.

The objective of this essay is to establish a context for enterprise restructuring and ownership reform in Chinese industry. This is critical to understanding enterprise reform as a process rather than as a policy event. The context of enterprise reform includes decentralized authority over public enterprise, the reliance of local governments on revenues from the industrial sector, a hierarchy of heterogeneous enterprise types, and the scissors effect on state enterprises of growing competition from both the external sector and the rural sector. Together, these conditions are creating a dynamic process that is driving enterprise reform, including the outcomes

described by the Gelb-Singh framework, which consist of a rapidly growing periphery, enterprise restructuring, and exit.

Even as China's state industry has grown at annual rates of nearly 8 percent since the beginning of the reforms, its share in total industrial output has fallen from nearly 80 percent in 1978 to below one-third currently. Restricted use of bankruptcy has limited the use of liquidation or destruction as a significant avenue of reform. State industry's reduction in the share of industrial production has instead been achieved by a growing nonstate sector, the restructuring of nonstate enterprises, and exit to a variety of new ownership types. These elements are not separate and distinct policy events, rather they are complementary parts of an integrated process that are bound by a single story that we refer to as Creative Reduction.<sup>2</sup>

Before describing the process of Creative Reduction, we review the institutional weakness of Chinese industry that lie at the heart of the reform problem and then discuss the paradox of rapid industrial growth both in state and nonstate industry.

#### PERSISTENCE OF INSTITUTIONAL WEAKNESSES

Despite a succession of market-supporting institutional developments, considerable expansion of managerial authority at the enterprise level, and growing pressure to implement the principle that enterprises "should be fully responsible for both profits and losses," Chinese industry, particularly state industry, continues to suffer from three institutional weaknesses.

#### INCOMPLETE SPECIFICATION OF PROPERTY RIGHTS

Across Chinese industry, rules of taxation, property rights, and commerce are not always clearly defined nor are they consistently enforced. Competing firms in the same industry or locality often face widely differing fiscal, legal, and regulatory regimes. Neither domestic nor foreign firms can rely on China's legal and regulatory system to uphold trademarks, licensing agreements and other intellectual property rights in a consistent manner. Government intervention in business affairs still extends well beyond the boundaries observed in heavily regulated market economies (e.g. Japan, Korea). As Broadman observes (1996, p. 2): "... the emerging multi-tiered network of state asset management committees, state asset management bureaus, state asset operating companies and state asset supervisory committees appears to be unduly complex, non-transparent, and lacking in independence from the old-line bureaus and ministries which are supposed to be phased out."

Official involvement in industrial affairs frequently has the effect of softening budget constraints, thereby weakening incentives for innovation and productivity growth, particularly, though not exclusively, in the state sector.

#### EXTENSIVE SOCIAL OBLIGATIONS

China's state-owned industrial enterprises employ more than 43 million staff and workers. What makes many SOEs different from

<sup>2</sup>This concept is inspired by Schumpeter's notion of a "process of creative destruction" (Schumpeter, 1942, Chapter VII).

the conventional capitalist firm is that they perform the function of a "small society," guaranteeing employment, but also extending housing, health, education and pension guarantees. In this respect, many state enterprises are like towns or small cities, sometimes with populations in excess of one-quarter million, where the role of the manager is as much that of mayor as corporate manager.<sup>3</sup>

As an artifact of central planning the Chinese Communist Party, these enterprises embody serious principal-agent and organizational boundary problems. The mix of corporate enterprise and social purpose, complicated by a system of vaguely defined property rights, confounds the task of making an economic profit and also legitimizes soft budget constraints that weaken incentives and the financial system. While reform of China's housing and social security systems is beginning to relieve many enterprises of these burdens, it remains the case for many state enterprises that their closure would destroy the productive base of whole communities, including most employment opportunities and social service services.

#### A WEAK FINANCIAL SYSTEM

The development of China's financial markets lags behind the proliferation of markets for commodities and for labor. Since state-owned enterprises traditionally provide their workers with housing and other services, whose transfer to the market or to government-operated social insurance programs remains incomplete, China continues to use bank loans to support chronic loss-making state enterprises and their employees. While banks, long accustomed to a passive and subordinate role within the former planned economy, are moving toward a commercial mode of operations in which profit forecasts and enterprise credit ratings determine the availability of funds, they continue to provide substantial "policy loans" and subsidies to state industry. Some observers see this practice as a potential threat to China's macroeconomic stability (Sachs and Woo, 1993; Woo et al., 1994).

The cost of these institutional shortcomings, although difficult to quantify, appears large. The question is, in light of these serious institutional deficiencies that would generally cause the economic and business communities to predict economic stagnation, how have China's state-owned enterprises and nonstate enterprises which face many of the same problems, if not quite so pronounced, established such a dynamic record of economic growth?

#### OWNERSHIP AND PERFORMANCE

Against the background of the serious institutional weaknesses described above, China's recent industrial achievements appear to be paradoxical. In particular, the paradox centers on the persistence of institutional weaknesses combined with the continued dominance of the public sector enterprise and improving performance of state industry.

<sup>3</sup> Figures from the early 1990s indicate that 93 percent of employees of state-owned industrial firms are provided with housing, with 51 percent of urban residents occupying housing furnished by state enterprises (Du and Shang 1993, p. 46). The budgets of state firms include massive social outlays that have grown rapidly with rising medical costs and the aging of the SOE work force. SOEs must draw on current revenues to support the pensions and medical expenses of retirees. SOE-run schools educate tens of millions of children.

## THE DOMINANT ROLE OF PUBLIC ENTERPRISE

Although the share of state industry's contribution to China's gross industrial output has rapidly declined, industrial production continues to be dominated by public enterprises. The decline in state industry's share of industrial output has not resulted from its stagnation; Table 1 shows an average annual rate of growth of 7.9 percent. Rather the decline in share shown in Table 2 has come from the spectacular growth of China's nonstate sector, principally the TVE sector. Together the TVE and SOE sectors, of comparable magnitudes in 1994, account for approximately two-thirds of China's industrial economy. Urban collectives account for another 7–8 percent. Other major ownership forms, including joint stock companies and foreign joint ventures, which account for another 15 percent of industrial output are also, for the most part, publicly owned.

TABLE 1. Chinese Industrial Performance, Real Output Growth 1980–1992.

Ownership Type	Index of Real Output (1980=100)					Average Annual Growth Rates (%)	
	1980	1985	1990	1992	1994	80/94	90/94
State .....	100	148	210	257	289	7.9	8.0
Collective .....	100	247	554	914	1,613	22.0	26.7
Individual .....	100	21,752	126,057	241,455	642,312	87.1	40.7
Other <sup>a</sup> .....	100	492	3,530	8,736	27,451	49.3	51.3
Total .....	100	176	328	480			

Source: Jefferson, Rawski, and Zheng, 1996a.

<sup>a</sup> Shareholding, foreign-invested, miscellaneous.

TABLE 2. Shares of Output in Total Industrial Output (%).

Ownership Type	1980	1985	1990	1992	1994
State .....	76.0	64.9	54.6	48.4	34.1
Collective					
Urban .....	13.7	13.3	10.3	11.8	7.6
Township-Village .....	9.9	18.8	25.3	26.2	33.4
Individual <sup>a</sup> .....	0.0	1.9	5.4	6.8	11.5
Other <sup>b</sup> .....	0.5	1.2	4.4	7.2	13.6
Shareholding .....					
Foreign-invested .....	0.5		4.4		
Miscellaneous .....					
Total .....	100.0	100.0	100.0	100.0	100.0
Total Output (¥ billion) .....	515.4	971.6	2,392.5	3,706.6	7,690.9

Source: Yearbook, 1993, pp. 409, 413; Rawski 1993.

Note: Percentage totals may not add due to rounding.

<sup>a</sup> Privately owned firms employing less than 8 workers.

<sup>b</sup> Includes private firms employing 8 or more workers, joint ventures, foreign-owned firms, and other ownership forms.

The explosive growth of TVE production has aroused intense interest in the operations of these firms. Use of the term "nonstate enterprise" to describe TVEs conveys the impression that rural collectives operate independently of officialdom. Some authors have speculated that TVE firms "mimic private enterprise" or operate like "loosely-structured cooperatives."<sup>4</sup>

In fact, TVE enterprises, although different in many respects from SOEs, are *public* enterprises. Built on the foundation of earlier industrialization efforts undertaken by local governments (Perkins and others 1977), TVE's and their operations are closely monitored and often controlled by "local government entrepreneurs" (Zweig 1991, p. 720) who "exhibit characteristics of both *de facto* owners and senior managers of township corporations" (Whiting 1993, p. 6).

Like their predecessors, many, but not all, TVE firms of the 1980s and 1990s operate under close supervision from the township or village industrial departments which contribute start-up funds, appoint managers,<sup>5</sup> and "are intimately involved in major strategic decisions."<sup>6</sup> Figure 1 demonstrates the relative distribution of decision rights in samples of state-owned and TVE enterprises. While the two distributions show that TVEs enjoy more decision autonomy on average, many of them enjoy less autonomy than that of the average SOE, and a substantial number of SOEs enjoy more autonomy than many TVEs.<sup>7</sup> Thus the public enterprises in China's collective industries which have blossomed in China's rural areas during the past decade are very different from those constituting the "burden of the public enterprise sector" envisaged by Gelb and Singh.

#### THE IMPROVING PERFORMANCE OF STATE INDUSTRY

No one disputes the scale and significance of the contribution that TVE industries have made to the growth of production, exports, productivity, employment, incomes, and material welfare in China's economy. That most, if not all, of China's old-line state enterprises have improved their efficiency by behaving less like passive bureaucratic followers and more like profit-seeking commercial businesses is a more controversial proposition. We intend to demonstrate this improvement with reference to an expanded version of the Structure-Conduct-Performance (SCP) paradigm found in the traditional industrial organization literature.<sup>8</sup> In this expanded SCP paradigm, we anticipate that *structural* and institutional reforms such as those in product, labor and financial markets and enterprise incentives, should give rise to changes in wage-employment, investment, and innovation behavior. These changes in en-

<sup>4</sup> Singh, Ratha and Xiao (1993); Weitzman and Xu (1994).

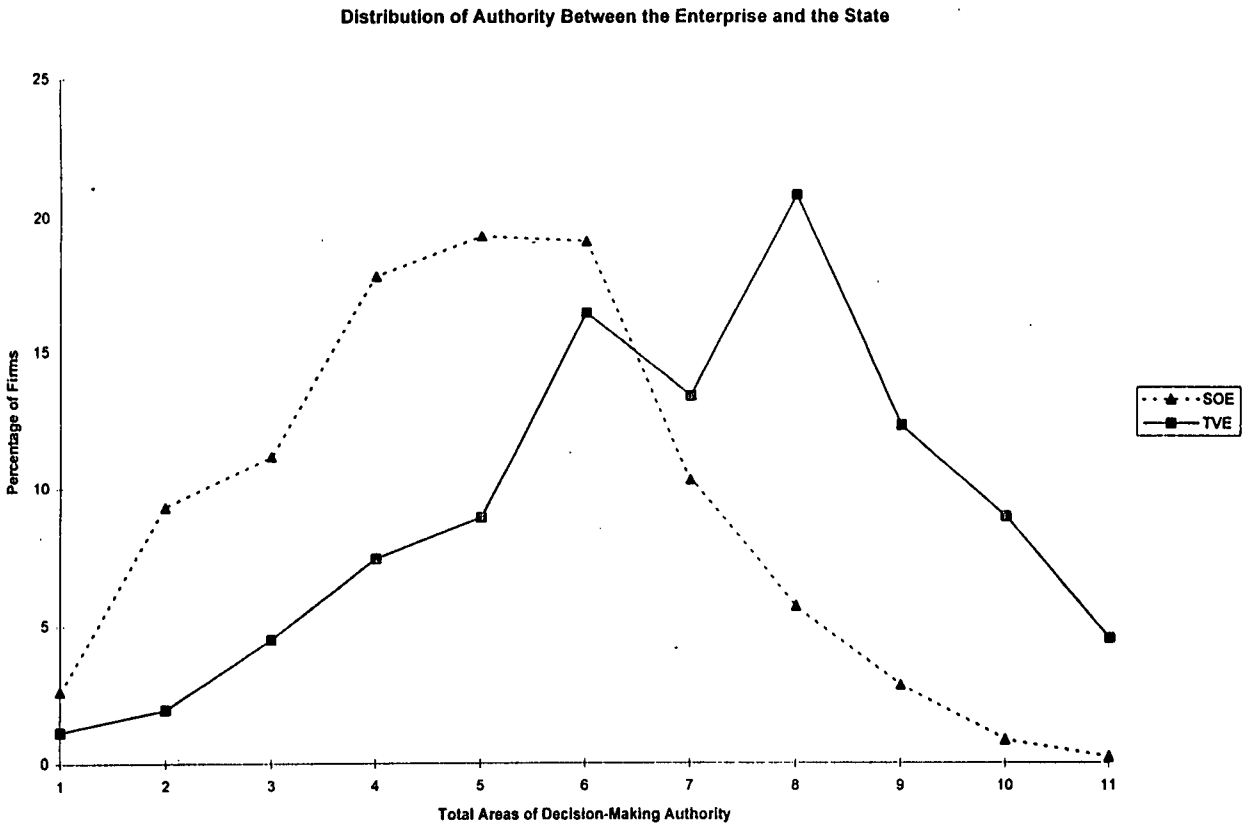
<sup>5</sup> A 1990 survey of 285 TVE firms found that only 16 percent had the authority to appoint their own leaders. In 60 percent of cases, the supervisory authority (i.e. the local government) appointed enterprise leaders without consultation (Jefferson, Lu, and Zhao 1994).

<sup>6</sup> Ody 1991, p. iv. Walder (1994) observes that "the control of top [local] officials over public firms is the greatest" in "the smaller rural jurisdictions" where "the party secretaries or other top officials . . . play an active role in the management of their valued industrial assets."

<sup>7</sup> See Whiting (1995) for an overview of the development of China's TVEs; for an account of one of China's most successful and autonomous TVE conglomerates, see Chen and Jefferson (1996).

<sup>8</sup> See Bain (1951) for an early, formal construction and empirical application of this model.

Figure 1. Histogram of Decision-Making Authority in Chinese Enterprise.



Source: Jefferson, Lu and Zhuo (1996).

terprise *conduct*, in turn, can be expected to affect the productivity, export and profit *performance* of the reformed enterprises.<sup>9</sup>

### Structure

We do not dwell on the specific features of China's state enterprise reforms. These are well documented by Naughton (1994), a variety of World Bank reports, and others. In summary, reforms at all levels, including the Open Door Policy and the dual track pricing system, have contributed to the development and gradual strengthening of market institutions, including the laws and enforcement mechanisms, physical infrastructure, and human capital needed to make them work. In addition to the emergence of a market environment with substantial ties to international product and financial markets, the central government has sought to strengthen the management of state enterprises through the Contract Responsibility System, the 14 Autonomous Management Rights, and other initiatives. What impact, if any, have these reforms had on the conduct and performance of state industry?

### Conduct

The impact of reform on objectives, incentives, and "corporate culture" within state firms, while neither universal nor complete, has brought substantial improvements in performance. We summarize various empirical evidence that documents change in state enterprise conduct:

- State enterprises, formerly devoted to plan fulfillment, now take profit as their chief objective.<sup>10</sup>
- Data on SOE performance generate increasingly robust statistical relationships of the kind expected from profit-seeking firms operating in a competitive market setting. These include statistically significant and increasingly robust associations between wages and productivity, bonuses and profitability, and investment activity and profit.<sup>11</sup>
- Most SOEs have sharply increased the pace of R&D efforts, new product development and process innovation. Enterprises of all types report state-owned enterprises as the major innovators in their product lines. (Jefferson, Rawski, and Zheng 1996b).<sup>12</sup>
- Exports of SOE manufactures, which increased at an estimated annual rate of 18 percent between 1985 and 1992, reflect the impact of greater attention to quality, variety, customer requirements, and cost control.<sup>13</sup>

<sup>9</sup> For a discussion of the extended Structure-Conduct-Performance paradigm, see Jefferson and Xu (1991) and Jefferson and Singh (1996).

<sup>10</sup> See Jefferson, Zhang and Zhao (1996) and Rawski (1994b).

<sup>11</sup> See, for example, Groves, McMillan, Naughton (1994); Hay, Morris, Liu, and Yao (1994); Rawski (1994b), Jefferson and Rawski (1994); Jefferson and Xu (1992); Jefferson, Hu, Singh and Wang (1996); and Jefferson, Hu, and Singh (1996).

<sup>12</sup> This observation is also based on the authors' interviews at approximately 70 Chinese enterprises, mostly SOEs, over the past decade.

<sup>13</sup> The estimated growth annual rate of SOE manufactured exports was much lower (7.8 percent) for 1988–92 than for 1984–88 (34.4 percent). However, the figure for 1988–92 probably understates actual growth, which may have surpassed a 10 percent annual rate (Rawski 1994a). Survey data indicate 20 percent annual export growth for a sample of 244 large SOE firms during 1986–89 (Rawski 1996). Nicholas Lardy points out that SOE exports have benefited from direct subsidies (in the 1980s) and special export credits (in the 1990s).



## Performance

The performance of Chinese industry may be evaluated with respect to productivity, a measure of technical efficiency, or profit, a measure of economic efficiency.

## Profitability

Based on his review of the literature on Chinese industrial productivity, most of which analyzes data accumulated during the 1980s, Wu (1993) summarizes the impact of the reforms on productive efficiency:<sup>14</sup>

Subject to (various) qualification, current studies illustrate that ongoing economic reform in China has offered Chinese enterprises great incentives to economize in their behavior. As a result, productivity in both state and nonstate industry has risen in recent years. The nonstate enterprises, dominated by the rural township, village and private enterprises, tend to perform better than their state counterparts, because of their ownership relation and external environment (p. 63–64).

A recent accounting of productivity growth in state and collective industry, shown in Table 3, finds continuing increases in productivity growth during 1988–1992 (Jefferson, Rawski, and Zheng (JRZ) 1996). Relative to the pre-1988 period, however, these results reveal a slowdown in productivity growth throughout Chinese industry. The decline is somewhat more pronounced for the state sector than for collective industry. JRZ suggest that the apparent general decline in industrial productivity growth can be accounted for by the *business cycle* which caused capacity utilization rates and hence levels of productivity to be lower in 1992 relative to 1988 thus depressing the measure of productivity growth from 1988–92. The more pronounced decline within the state sector, the authors suggest, can be partly accounted for by two additional conditions. The first is declining capital productivity resulting from acceleration of capital deepening in state industry and structural weaknesses in the financial system discussed above. Calculations by JRZ demonstrate that during 1980–84, shown in Table 4, capital productivity in state industry rose by an annual rate of 3.53 percent, during the next four year period, it remained virtually flat at 0.39 percent, and during 1988–92, capital's productivity declined at an annual rate of 3.42 percent. Continued weaknesses in China's system of industrial finance must account in part for this pattern of slowing, then declining growth in capital's productivity.

The second source of slowing productivity growth in state industry is the phenomenon of *selectivity bias*. Table 5B displays productivity outcomes for chronic SOE loss-makers—firms that recorded consecutive annual losses during 1989–92—many of which avoided bankruptcy only because of their SOE status. The data, drawn

<sup>14</sup> Woo and others (1994) employ sample data to show a declining trend for productivity in several branches of industry, but only by assuming a common trend for product and input prices during a period of rising relative prices for industrial materials. Jefferson, Rawski and Zheng (1996b) examine, in some detail, the implication of various survey price data for estimates of productivity growth in state industry and conclude that their results of moderate positive growth are robust.

from a panel of large and medium-size enterprises, show not only that the chronic loss-makers shown in Table 5B exhibit low levels of single factor productivities, but, of greater relevance for productivity *growth*, their growth rates of labor and capital productivity are far less than those for the full sample of SOE firms shown in Table 5A. For both labor and capital productivity, disparities in rates of growth between the full sample and the loss-makers exceeds 10 percentage points. Such distortions remain muted in the collective sector: the impact of joint ventures is smaller, and failed enterprises routinely disappear.

TABLE 3. Growth Accounting for State and Collective Industry, 1980–1992.

Type of Industry and Period	$g_Q$	$\alpha_k g_K$	$\alpha_l g_L$	$\alpha_m g_M$	Productivity
State					
1980/92 .....	6.90	1.38	0.33	2.69	2.50
		6.73	2.73	3.98	
1980/84 .....	7.06	0.72	0.35	3.74	2.24
		3.53	2.93	5.55	
1984/88 .....	8.52	1.67	0.44	2.73	3.68
		8.13	3.64	4.05	
1988/92 .....	5.11	1.75	0.20	1.59	1.58
		8.53	1.64	2.35	
Collective					
1980/92 .....	12.36	1.36	0.37	7.19	3.43
		10.20	3.19	9.60	
1980/84 .....	13.54	1.14	0.53	9.06	2.80
		8.54	4.54	12.10	
1984/88 .....	15.65	1.92	0.55	8.66	4.52
		14.36	4.73	11.55	
1988/92 .....	7.90	1.03	0.03	3.86	2.98
		7.71	0.29	5.15	

Note: Figures between the lines are growth rates for factor inputs. The values of  $\alpha_k$ ,  $\alpha_l$ , and  $\alpha_m$  used in these calculations are 0.205, 0.120, and 0.675 for the state sector and 0.134, 0.117, and 0.749 for collective industry. Both sets of calculations, for state and collective industry, derive measures of real output for by applying the price index for urban industry shown in the upper panel of Table 3 in JRZ (1996) to the official figures for nominal output of state and collective industry respectively, shown in Table 2 of JRZ (1996).

Source: JRZ (1996).

TABLE 4. Rates of Growth of Capital Productivity.

Period	SOE	COE
1980–92 .....	0.16	2.16
1980–84 .....	3.53	4.99
1984–88 .....	0.39	1.29
1988–92 .....	-3.42	0.19

Source: JRZ (1996), Table 4.

TABLE 5. Productivity of State Enterprises by Performance Category: Conversions- and Loss-Makers.

Performance Category and Year	Q/L <sup>a</sup>	Q/K <sup>a</sup>	Q/M <sup>a</sup>
A. Balanced sample of large & medium state enterprises, 1988-1992 (N=2345)			
1988 .....	29,079	2.08	1.65
1992 .....	43,380	2.14	1.63
Change (%) .....	11.56	0.93	-0.27
B. Persistent Losers, firms with negative profit throughout 1989-1992 (N=62)			
1988 .....	15,800	1.49	1.49
1992 .....	13,464	0.98	1.48
Change (%) .....	-3.98	-10.50	-0.21
C. Firms exiting SOE classification during 1989-1992 and entering a new classification involving state enterprises (N=73)			
1988 .....	44,701	3.35	1.62

<sup>a</sup>Col. 1: gross output (current prices) divided by unadjusted year-end employment. Col. 2: gross output (current prices) per unit of year-end net fixed assets (undeflated). Col. 3: gross output (current prices) per unit of (undeflated) outlay on materials, fuel, and power.

Source: Data on 2345 large and medium enterprises in selected branches of industry provided by the State Statistics Bureau. The total number of large and medium industrial enterprises in 1992 was 16,903 (Yearbook 1993, p. 417).

Selectivity bias also operates through the creaming of SOEs in the conversion process and the blockage of exit channels for chronically poor performers depresses measures of state industry productivity growth, the phenomenon of selectivity bias is becoming increasingly pronounced. We discuss this phenomenon in a later section of the paper.

### Profit

Examining profit performance across ownership types, Table 4 shows considerable differences in 1994, the most recent years for which we have comparable data. While overseas-funded joint ventures report the lowest rates, followed by collectives, the highest rates are reported by share-holding enterprises. Somewhat surprisingly, according to statistics reported by the State Statistics Bureau (1995), state-owned enterprises appear to enjoy rates that are robust compared with the collective and foreign sectors.

Table 7 shows a rise cumulative state industry losses. As a percentage of GDP, these losses ranged from 0.5% to 0.6% over the 1986-88 period. The macroeconomic stabilization program of 1988 aggravated the losses, which as a share of GDP peaked in 1990 at 1.98%. Since 1990, SOE industry losses as a share of GDP have fallen to 1.1 percent in 1994. Since the late 1980s, the share of industrial state enterprises incurring losses has increased, from just 13 percent in 1986 to more than 30% in 1991 (*Hua*, 1992). In 1995, the share of loss-making enterprises rose further to 44 percent (Broadman, 1996, p. 1). Table 7 shows that in 1991 approximately 36 percent of these losses were concentrated in the coal and oil sectors.

Within Chinese industry, all ownership groups exhibit declining rates of profit. This pattern of declining rates was most clearly doc-

TABLE 6. Profit Rates of Different Ownership Types.  
(Percent of total pre-tax profit/total revenues)

Type of Ownership	1985	1988	1992	1993	1994
Total .....			10.8		11.6
By size:					
Large .....			13.3		16.3
Medium .....			10.7		9.4
Small .....			8.5		8.0
By ownership:					
SOE .....	23.6 <sup>a</sup>	14.7	11.7	10.8	13.0
Large .....					16.3
Medium .....					9.2
Small .....					6.5
COE .....	14.3 <sup>a</sup>	9.0	8.4	8.9	
Township .....			10.0		
Other .....			10.2		
Share-holding .....				17.2	16.9
Foreign-funded .....				11.4	11.8
Overseas-funded .....				8.1	7.8
Large .....					16.1
Medium .....					9.9
Small .....					8.8

<sup>a</sup> Total pre-tax profit/gross value of industrial output rather than total revenues.  
Source: Statistical Yearbooks.

TABLE 7. Total Losses in State-Owned Enterprise.  
(¥ 100 million)

Measure	1986	1988	1991	1994
Loss .....	54.4	81.9	367.0	482.0
Of which:..				
Coal .....	21.8	37.0	75.1	
Oil .....	n.a.	13.1	57.0	
Iron & steel .....	0.6	0.6	12.1	
Chemical Fertilizer .....	8.4	2.4	13.1	
Textile .....	1.7	1.3	33.7	
Light Industry .....	4.1	4.6	37.9	
Tobacco .....	0.1	1.3	14.8	
% of SOE industry losses .....	67.5	73.6	66.4	
% of GDP .....	0.6	0.6	1.9	1.1

Source: Fax from Hua to Harrold (September 19, 1992) and Yearbook (1995), pp. 6 and 7.

umented by Naughton (1992, Table 1).<sup>15</sup> Table 6 demonstrates that declining profit rates are not limited to state industry. Profitability

<sup>15</sup> Note that some, including Naughton and official statistical sources, use a ratio of profit to capital to assess profitability. Because of ambiguities concerning the economic meaning of reported measures of fixed assets in Chinese industry, we choose to use the profit-sales ratio as a measure of profitability.

has fallen in the collective and TVE sectors, the foreign sector and the domestic joint venture sector, and the shareholding sector, as well as in state industry.

Investigating sources in the decline in industrial profitability, *Naughton* (1992) reports three findings that suggest a pattern of growing competition that has eroded monopoly rents throughout Chinese industry. Three changes are found in this important study. First, consistent with the competition hypothesis, *Naughton* notes that within state industry the sum of remitted enterprise profits and indirect taxes, representing 24.7% of GNP in 1978, fell to just 10.7% of GNP in 1989. Second, profits have tended to equalize across state industrial branches. In 1980, profit rates (profit + tax/total capital) across industrial branches varied considerably. In that year, the standard deviation of branch profit rates across China's 38 branches was 19.7, while the coefficient of variation was 0.78. By 1989, these statistics had fallen to 7.4 and 0.44, respectively. Third, *Naughton* found that the superprofits earned in the nonstate sector after initial entry declined over time, from 40% in 1978 to about 13% in 1990. *Naughton* argues that the success of the nonstate sector in bidding away superprofits within the state sector has reduced profitability generally throughout Chinese industry, as the state's monopoly has increasingly been eroded.

An explanation of the relative decline in SOE profitability may be that if productivity is growing in both the state and collective sectors, but more rapidly in the collective sector, then the relative decline of unit costs in the nonstate sector relative to the state sector may be depressing profits in the state sector. Consistent with this conjecture, *Singh, Ratha and Xiao* (1993) find that profits in state industry have been falling most rapidly in those provinces in which the share of nonstate industrial output has been growing most swiftly. In addition, they find that, with a lag, the productivity of state industry has grown most rapidly in areas in which competition from the nonstate sector has grown most rapidly. The fact of growing competition from the nonstate sector helps to explain the paradox of rising productivity and falling profitability in state industry. These seemingly unrelated phenomena of growth of the periphery, differential productivity growth between state and nonstate enterprises, rising competition and falling profit rates provide the starting point for our model of Creative Reduction.

#### THE INSTITUTIONAL CONTEXT FOR ENTERPRISE REFORM

At the outset of their paper, *Jefferson and Rawski* (1995) observe that many researchers view the reform of former socialist economies as a process driven by the abolition of planning, the removal of price controls, the privatization of state enterprises, and other policy changes directed and controlled by the state. According to this view, from the top down, reformers replace old institutions with new structures. In this linear view of reform, the self-interested response of agents within the economy is expected to stimulate profit-seeking behavior and market activity. If progress is inadequate, planners can impose further rounds of reform.

*Jefferson and Rawski* do acknowledge that the role of exogenous, centrally directed reform has played a role in China's economic transition. It was the central leadership that initiated China's eco-

conomic reforms in the late 1970s, expanding the role of prices and of market allocation, rolling back long-standing barriers to international trade and investment, transferring authority from central planners to enterprise managers and local governments, creating a unique system of dual (plan and market) pricing for industrial goods, and so on. But unlike the post-Communist leaders in countries like Poland and the Czech Republic, China's policy-makers embarked upon a path of reform with no clear vision of what a restructured economy should look like and no consensus about the policy mix or institutional arrangements that best suited their twin objectives of political continuity and accelerated economic growth.<sup>16</sup> Not surprisingly, policy announcements from the center were partial and tentative. The center ratified but did not direct the momentous shift from collective to household farming. Central initiatives in the reform of industry focused on incremental relaxation of controls over state-owned enterprises. Even the revolutionary "open door" strategy, reflected in a sequence of central decisions that shattered long-standing barriers to China's participation in the world economy, concentrated on expanding trade and investment activity in a small number of provinces and special zones along China's southeast coast.

Developing this model of endogenous reform, Jefferson and Rawski (1995) depict China's industrial reform as a cumulative process which begins when partial relaxation of institutional constraints associated with socialist planning initiates competition in the markets for industrial products. Competition reduces profits, creating financial pressures that induce technical innovations, economizing behavior, and fresh rounds of market-leaning institutional change. These pressures to restore profits and revenues invite decentralized reactions involving the creation of enterprise alliances and groups, restructuring and conversions, that the center can neither anticipate nor control. Governments at all levels become participants, sometimes even followers, as well as leaders of reform. Reform unfolds as a process replete with interactions among governments, enterprises, workers, and consumers rather than a sequence of events in which the state makes decisions to which businesses and individuals react.

This model rests on four key institutional features of China's industrial economy: supervision, competition, industrial profits, and heterogeneous enterprise types.<sup>17</sup>

#### DECENTRALIZED SUPERVISION

Central control of China's industrial enterprises was never as tight as in Eastern Europe and the Soviet Union (Granick, 1990). Decentralization increased during the late 1960s and 1970s as the central government transferred the supervision of many firms to provincial and municipal governments. This system of decentralized supervision encouraged provinces and localities to create and

<sup>16</sup> These assertions are amply documented by Hua, Luo, and Zhang (1993); Shirk (1993); and Naughton (1994).

<sup>17</sup> While there are factors beyond China's domestic industrial economy that have facilitated the reform process, namely the successful agricultural reforms, relative macroeconomic stability, and the resources and complementarity of the Hong Kong and Taiwan economies, cited by Hussain and Stern (1994), Jefferson and Rawski focus on the initial, underlying conditions that are specific to the industrial system.

pursue their own industrial development strategies. When reform began, decentralized decision-making also made it possible to introduce piecemeal reforms and to conduct local policy experiments without disrupting the whole economy. Successful local reforms inspired widespread emulation.

#### INCIPIENT COMPETITION

The term "incipient competition" well describes the circumstances of domestic Chinese markets for industrial products on the eve of reform. Prior to the reforms, competition had been sharply limited by policies that had the effect of creating strong barriers to entry. Removal of these barriers, however, quickly revealed multiple competitors in nearly every product line. In China, unlike Russia, other former republics of the Soviet Union, and Eastern Europe, deregulation leads to industrial competition, not monopoly.

Once liberalization commenced, competitive pressures arose from three sources. China's "open door policy," including the establishment of 14 special economic zones, led to a rapid expansion of trade and investment. China's southern regions, in particular, took advantage of the new policy to promote industrial growth with the aid of capital, skill, and commercial contacts from overseas Chinese, most of whom trace their ancestry to the southern coastal provinces of Guangdong and Fujian. From within China, China's rural reforms led to the rapid rise of agricultural productivity which in turn generated a rural labor surplus and ballooning rural savings that provided the resources for the rapid entry and growth of new rural enterprises. Entrepreneurial leaders in hundreds of counties and thousands of production brigades were poised to take advantage of deregulation by bursting into markets that they had coveted for years. Finally, China's long-standing policy of building complete sets of state-owned industries in most provinces provided a ready-made source of competition.

#### FISCAL DEPENDENCE ON INDUSTRIAL PROFITS

Industrial profit deliveries and tax payments are a key component of fiscal revenue at every level of government. State enterprises contributed 80 percent or more of "adjusted budgetary revenues" in every year during 1978-87. In 1988 state industry accounted for 73 percent of profits and profit taxes from all state enterprises,<sup>18</sup> implying a share in total revenue of around 60 percent. By 1994, state industry's share had fallen but remained substantial at nearly 40 percent of total revenue. (Yearbook, 1995, pp. 215 and 403).

The fiscal reforms of the 1980s created a system in which each level of government collected taxes from enterprises under its jurisdiction, "turned over a contractually specified amount to the next higher level of government, and could keep the residual." The result was "a shift toward local fiscal power at the expense of the center, as the center's proportion of total government revenue fell" from 50 percent in the 1970s to less than 30 percent in the 1980s (Walder, 1994).

<sup>18</sup> Sicular (1992), Table 5 and p. 3.

## CHINESE INDUSTRY AS A HIERARCHY OF HETEROGENEOUS ENTERPRISE TYPES

The universe of domestic industrial enterprises is heterogeneous; there is a hierarchy of domestic firms: foreign-linked firms, state enterprises, TVE collectives, and private businesses. These groups of firms exhibit systematic differences in technological capabilities, cost structures, and institutional arrangements. There is an inverse relation between innovative capability and labor costs. State enterprises suffer the greatest restriction from institutional constraints; TVEs are least affected by institutional limitations. The interaction of these different enterprise types creates a kind of innovation and competition ladder.

Jefferson and Rawski's analysis, and the extension of that to the Creative Reduction paradigm, begins with the idea of international product cycles and quality ladders developed by Vernon (1966) and Grossman and Helpman (1991). Their models focus on interactions between innovative firms in the "North" and imitators in the "South." Northern firms rely on product innovations to support their high-cost manufacturing operations. Southern firms, with lower production costs, can capture markets by replicating Northern products. The North retaliates with a fresh round of innovation. Rivalry among different types of producers leads to an ongoing evolution of product characteristics, while the locus of manufacturing activity may shift back and forth between firms located in the "industrial" North and in the "developing" South.

This approach fits nicely with China's current industrial capabilities. Chinese industrial goods rarely match the quality and characteristics of products manufactured by global leaders. But Chinese firms, either on their own or with the cooperation of foreign partners, can produce reasonable substitutes at low cost. Rapidly growing exports of textiles, garments, footwear, machinery, and consumer durables illustrate China's participation in international quality ladders.

Before describing types of firms, we explain how the reform process unfolded.

### CHINESE ECONOMIC REFORM AS A PROCESS OF CREATIVE REDUCTION

These institutional conditions create the underpinning for a process of creative destruction. What emerges is a picture of economic momentum arising from a cumulative and mutually reinforcing process of market competition, technical innovation, and institutional change, including the three avenues described by Gelb and Singh for reducing the role of public enterprises—growth of the periphery, restructuring and conversion. The sequence of responses that transforms partial reform into improved performance is simple and direct.<sup>19</sup>

#### GOVERNMENT INITIATION OF PARTIAL REFORM MEASURES

Chinese industry includes several types of firms—joint ventures, state firms, urban collectives, township-village enterprises, and pri-

<sup>19</sup> The following seven steps are summarized from Jefferson and Rawski (1995).



vate producers. There is a distinct hierarchy of capabilities, product quality, and labor costs, all of which are highest in joint ventures and state-owned firms. Competition occurs within a framework of "product cycles" in which low-wage firms increase sales and profits by imitating goods introduced at higher levels of the hierarchy; advanced firms strive to maintain their advantage by upgrading the quality and variety of their products. Reform begins when the government implements partial reform measures that reduce entry barriers and lower the cost of many types of transactions. These initiatives have a differential impact on the opportunity sets available to various groups of firms. Partial reform accelerates the domestic product cycle by facilitating the transmission of cost pressures and technologies up and down the hierarchy of industrial enterprises.

#### PARTIAL REFORM: DESTABILIZATION OF OUTCOMES AND INTENSIFICATION OF COMPETITION

The unequal impact of reform efforts destabilizes the existing division of industrial resources and product markets among different types of firms. Competition in industrial product markets intensifies. Table 8, for example, shows dramatic reduction in state industry's share of the industrial economy's total production of machinery, textiles, apparel and chemical goods.

TABLE 8. Industrial Output Composition for State Owned Enterprises by Industrial Branches (%).

Type of Industry	1987	1994
Metallurgy .....	75.08	68.56
Electricity .....	94.57	80.26
Coal .....	74.04	77.47
Petroleum .....	80.74	93.58
Chemicals .....	72.47	46.10
Machinery .....	70.38	37.11
Building materials .....	33.69	36.06
Forestry and wood products .	39.30	34.08
Food processing .....	79.17	61.38
Textiles .....	83.96	39.21
Apparel .....	18.63	6.78
Leather goods .....	30.70	10.89
Paper .....	57.30	36.30
Cultural and art goods .....	23.13	12.18
Other .....	73.66	44.83

Note: The 1987 figures are calculated using the shares reported in T. Rawski, "An Overview of Chinese Industry," in Jefferson and Singh (1996).

Source: China Statistical Yearbook, 1988, pp.318, 319; China Statistical Yearbook, 1995, pp. 388, 392.

#### COMPETITION TO REDUCE PROFITABILITY

Stronger competition diminishes flows of profits created by entry barriers and market segmentation. At the micro-level, reduced profitability limits the growth of wages and bonuses for some firms;

others are thrown into a position of financial loss. At the macro-level, erosion of profits limits the growth of revenues accruing to local and provincial authorities and to the central government. As documented above, reform has brought dramatic reductions in industrial profits. The dominance of the public sector has made governments the chief victim. Tax and profit deliveries from industry lag far behind the growth of output and expenditures. Moreover, widespread tax evasion exacerbated the fiscal consequences of falling profits. This decline in earnings affected all segments of domestic industry.

#### RESPONSE TO FINANCIAL PRESSURES

Firms react to financial stress by choosing one or more of the following strategies: restructuring, lobbying for further deregulation to facilitate profit-seeking, or lobbying for subsidies or official intervention to restore the initial financial position. We will see that market conditions, enterprise efficiency, and the size and level of supervision of the enterprise all affect the form and extent of response of the enterprise to financial pressures.

#### GOVERNMENT REACTION TO FINANCIAL PRESSURES AND ENTERPRISE LOBBYING

Government's declining share of economic output is a key link in Chinese reform dynamics. Lacking funds to provide all firms with "soft budget constraints," central officials repeatedly faced an unwelcome choice between escalation of fiscal deficits and forcing state enterprises to seek sustenance from market activity. Central officials frequently, although not always, selected the latter option. Provincial and local governments, whose share of revenues rose at the expense of the center, also restricted subsidies. Again, competition provides an explanation. Provincial and local governments compete for foreign and domestic investment. With little access to credit markets, local governments fear that large subsidy payments will cripple local competitive strength by delaying vital infrastructure projects.

#### FEEDBACK EFFECTS: ACCELERATION OF THE IMPACT OF REFORM

The induced responses of firms and governments further erode entry barriers and reduce transaction costs. Beneficial feedback effects accelerate every dimension of the reform process by intensifying competition, further diminishing profits, and motivating additional reform efforts on the part of enterprises and governments. These changes initiate further rounds of economizing efforts, technical development, and institutional reform.

#### EFFECT OF EXPERIENCE ON ATTITUDES, EXPECTATIONS, AND BEHAVIOR

This entire process affects the attitudes of enterprise personnel and government officials toward the direction and outcome of reform. Changing attitudes affect the objectives and strategies of all participants. The experience of partial reform created pro-market sentiment among former advocates of central planning. Susan Shirk finds that managers of large-scale industry "changed from

lazy conservatives coddled by the state to active reformers challenging the state" (Shirk, 1993, p. 288; see Rawski, 1994b). The thinking of government officials and political leaders experienced similar gradual changes.

The rise of pro-market sentiments among the political and administrative elite represents the biggest feedback of all. By the early 1990s, ideas that only ten years earlier stood outside the limits of permissible discussion now took center stage. Ambitious bureaucrats began to resign their official posts to pursue private business careers.<sup>20</sup> China's Communist Party formally announced a national goal of creating a decentralized market economy decision in 1993. This remarkable change in outlook, combined with intense fiscal pressures, has sparked a series of policy innovations aimed at broadly reforming China's industrial sector.

#### OUTCOMES OF THE PROCESS: ENTERPRISE REFORM AND CREATIVE DESTRUCTION

This process of industrial reform described by Jefferson and Rawski gives rise to expanding competition and the spread of financial and fiscal pressures on thousands of governmental jurisdictions and millions of industrial enterprises to improve their economic performance. A look at Table 5 gives some insight into the firms that are most affected by this process. The top of that table shows profit rates of all large and medium-size enterprises, both state and nonstate. While these data only span a two-year period, they show a clear and consistent pattern in which larger firms enjoy higher profit rates than smaller firms. Moreover, while rates of profit of the largest firms have risen from 1992 to 1994, for medium and small firms, rates have fallen. Within state industry, we see even greater disparities of profit rates; small enterprises on average report rates of only 6.5 percent, less than the 8.8 percent rate recorded for small nonstate enterprises. By comparison, the profit performance of large enterprises is very similar, regardless of ownership type. This pattern of profitability strongly suggests that the growing number of loss-making enterprises reported in state industry are largely concentrated in the small enterprise sector. It is also entirely consistent with the process of economic reform described in the previous section, a process which gives rise to competitive pressures to which the small enterprise sector is most vulnerable.

Against this background, industrial reform is proceeding through the three avenues identified by Gelb and Singh. These are growth of the periphery, restructuring the PE sector, and conversion.

#### GROWTH OF THE PERIPHERY

The decline in the output share of state between 1980 and 1994 from nearly 80 percent to approximately one-third reflects dramatic gains in the share of industrial output contributed by the nonstate sector. Not only has the number of small enterprises outside the state sector proliferated, creating close to 10 million industrial enterprises in China, but large and medium nonstate enterprises have also begun to establish a presence. During the 1980s, vir-

<sup>20</sup> Kathy Chen, "Chinese Bureaucrats Take Hopes Private," *Wall Street Journal*, 26 January 1994, A10.

tually all of China's large and medium-size enterprises were state-owned. Few collectives or joint ventures were classified as large or medium. By 1993, however, this profile had already begun to show dramatic change. Among the 18,471 large and medium-size enterprises in that year, a quarter of the total were classified in nonstate categories, including approximately 2,800 collectives, 400 joint stock companies, and 900 foreign and overseas firms, both joint ventures and wholly-owned. That no more than 130 were reported as either individually owned or wholly foreign or overseas owned, indicates the still limited role of pure private ownership among large and medium-size industrial enterprises. In this sense, the Gelb-Singh strategies of "growing out of the PE sector" and privatizing are not pervasive among China's large and medium enterprise sector.

#### RESTRUCTURING THE PE SECTOR

The second element of the process of Creative Reduction through which the state reduces its control of industry is through restructuring. In Chinese industry, restructuring has involved a relaxation of state control over enterprise decision rights and as residual claimant. Using a large set of enterprise data spanning state-owned and township and village enterprises, Jefferson, Lu and Zhao (JRZ, 1996) formally investigate their version of the Induced Reform Hypothesis. The hypothesis asserts that competition and low or declining profits enables managers to seek more autonomy and control a larger share of the residual. Relatively inefficient enterprises can also be expected to be subject to relatively intense pressures to reform management systems to improve efficiency.

At the same time, the status of the enterprise, both its size and the level of government at which it is supervised, is likely to affect the motivation of authorities at the state and lower jurisdictions to advance or withhold reform. We expect this for two reasons. First, governments that are most susceptible to fiscal pressure arising from financially strapped enterprises are lower levels of jurisdictions that are unable to print money and enjoy limited access to financial markets for the purpose of issuing debt. Faced with poorly performing enterprises and sagging revenue growth, lower-level supervisory bodies are more likely to press for enterprise reform. We also observe that the central government has formulated a different reform agenda for the largest SOEs, over which it tends to exercise more direct authority.

In light of these considerations, JLZ anticipate that the size of the enterprise, designated by the State Statistics Bureau as large size, medium size, or small size will affect the extent of reform of its property rights. In general, for reasons suggested above, they expect that small enterprises, both SOEs and TVEs, that are supervised by lower levels of government facing tighter budget constraints and distanced from the more measured reform agenda of Beijing, would demonstrate the greatest degree of reform. Large enterprises, those most directly under the control of the center and most able to benefit from the largess of policy loans and other subsidies, will be least reformed. The medium-size enterprises would generally experience fewer of the two conflicting sets of pressures,

so that their pattern of reform would tend to fall in-between that of the large and small-size enterprises.

JLZ use the following relationship to investigate the hypothesis of induced property rights reform:

$$(1) \quad INDEX_i = b + b_1COMP_i + b_2PRO8990_i + b_3TFP8990_i + b_4SIZE_i + \varepsilon_i.$$

In equation (1), *INDEX* is a measure of restructuring based on a geometric weighting of measures of enterprise autonomy, coordination of internal authority, and profit retention using enterprise data collected in 1991. On the right hand side of Equation (1), *COMP* is a composite measure of two separate measures of the degree of competitiveness of the enterprise's market environment.<sup>21</sup> The variable *PRO8990* is the pretax profit to sales ratio averaged over 1989–90; *TFP8990* is a measure of total factory productivity, also averaged over 1989–90; and *SIZE* is a categorical variable for the official size classification of the enterprise with 1 = large size, 2 = medium size, and 3 = small size.

JLZ estimate Equation (1) for their samples of SOEs and TVEs; the results are shown in Table 9. For the state sector, we see that estimates of the coefficients of all four explanatory variables are of the predicted sign and statistically significant. For the TVE sector, each of the estimates is consistent with the predicted sign, but the fit of the relationship is not nearly as statistically robust as it is for the state sector. We conclude that SOEs conform well with the story of induced reform, but the TVE sector conforms only weakly. In the process of Creative Reduction, described in the last section and captured in Equation (1), we see has a significant statistical impact on restructuring state industry by reducing the control of the state over decisions and profits.

#### EFFECT EXIT FROM THE STATE SECTOR THROUGH CONVERSION AND/OR LIQUIDATION

A well-known feature of China's industrial reform is the limited incidence of bankruptcy or liquidation. The common means of exit from the state sector is through conversion of state-owned enterprises into one of 13 other official ownership categories.<sup>22</sup> Only one of these, collective-owned enterprise, is a pure form of public ownership, and even some of these conversions may be "red hats" in the sense of being essentially privately owned but disguised under the umbrella of a collective for political advantage.

Although official documents avoid terms like "ownership reform" or "privatization" to describe these changes, recent initiatives amount to a policy of gradual and induced privatization. Ministries, provinces, and localities have begun to lease state-owned industrial firms to private agents (including foreign companies). Some loss-

<sup>21</sup> The first, ranked on a scale of one to three, asks the respondent to rank the intensity of competition within the industry in which the enterprise operates. The second, also ranked on a scale of one to three, asks the respondent to estimate the demand elasticity for the principal product of the enterprise (i.e., no response, relatively inelastic, very elastic). The variable *COMP* combines these measures along a scale of two to six.

<sup>22</sup> The categories include collective-owned enterprise, individual enterprise (less than 7 employees), domestic joint venture (JV), joint stock company, limited stock company, limited liability company, foreign JV, foreign cooperative, foreign wholly owned, overseas JV, overseas cooperative, overseas wholly owned, and other. Among these, only collective-owned enterprise is a kind of pure public enterprise.

TABLE 9. Impact of Performance on Reform.  
(Dependent Variable = INDEX)

Item	SOE	TVE
Constant .....	4.015 (11.232)	3.629 (5.521)
INDEXO .....	-13.314 (99.568)	-12.798 (26.871)
COMP .....	0.164 (2.344)	0.293 (0.235)
PRO8990 .....	-2.320 (2.635)	-0.035 (0.769)
TFP8990 .....	-0.583 (2.692)	-0.254 (1.206)
SIZE .....	0.146 (1.863)	n.a.
Adjusted $R^2$ .....	0.957	0.791
Number of observations .....	467	210

Source: Jefferson, Lu and Zhao, 1996.

making firms are forced to merge with stronger enterprises, with substantial loss of jobs;<sup>23</sup> Others are auctioned off to the highest bidder. The government has also begun to support the reorganization of state enterprises into limited-liability entities owned by government, corporate, and private share-holders.

Within the TVE sector, the phenomenon of creating stock companies is becoming increasingly widespread. The result of this process is to individualize ownership (*gerenhua suoyozhi*) by conveying shares in the enterprise to workers, managers, and residents. While township and village governments generally retain substantial portions of these shares, the process of individualization does reduce, if not eliminate, public ownership and the problem of ambiguity of property rights.

One effect of the reclassification of successful state enterprises into new organizational forms directly reduces the measured growth of productivity in the state sector. To examine the contribution of these forms of selectivity bias to the productivity slowdown in the state sector, we investigate differences in productivity performance among large and medium-size state enterprises. Table 8 compares the productivity levels of enterprises that were classified as SOEs in 1988 but exited from the SOE classification between 1989 and 1992, for the most part due to ownership reform. Table 5C shows that average productivity of labor and capital was much higher for departing SOE firms than for those that remained with the SOE category. Thus one effect of conversion, the third leg of the Creative Reduction process, is that it tends to cream the best performing SOEs, thus intensifying the crisis of state industry.

<sup>23</sup> One report notes that "the biggest problem with mergers is the job losses." Many of the enterprises acquiring loss-making firms "are only interested in obtaining the equipment and extra space," which creates a "problem of redundancies" (Huang Zhiling, 1994)

## CONCLUSIONS

We describe an on-going process of Creative Reduction in Chinese industry that is leading to a declining role of the state. Competitive pressures, both competition among the growing proliferation of industrial enterprises and the quest of local jurisdictions for revenues, jobs and investment, are squeezing profit margins and local revenue thus forcing new rounds of technical change and institutional innovation. Growth of the periphery, one avenue of Creative Reduction, was principally fueled during the 1980s by the explosive growth of the township and village enterprise sector; increasingly, in the 1990s, the foreign and domestic private sectors are driving the growth of nonstate industry.

We also find that different kinds of enterprises are subject to different reform scenarios. Smaller, less profitable and less efficient enterprises operating in competitive settings are more often the subject of restructuring, or sometimes outright privatization or merger. Larger, more successful enterprises, are often the target of conversion, involving foreign investment or publicly-traded shareholding companies.

Understanding these processes of Creative Reduction is important for understanding the impact of enterprise reform on performance. A simple correlation between performance and a measure of restructuring may yield weak or negative results that obscure the two-way nature of the reform process. Low productivity and weak profit performance that give rise to reform can be mistakenly interpreted as the effect of reform. Alternatively, among larger enterprises that are converted from state-ownership, high profits and productivity may reflect the tendency to cream the best state enterprises rather than, at least in the short-run, the advantages of nonstate ownership.

Finally, continuation of the process of Creative Reduction depends on vibrant competition through expanding domestic and international trade. Reductions in tariff rates, such as those implemented during the first half of 1996, will help to sustain this important process. Other initiatives, such as those of local jurisdictions intending to protect local industry against outside competition, are likely to slow the process of Creative Reduction and should be resisted.

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# CHINA'S FINANCIAL REFORM AND MONETARY POLICY: ISSUES AND STRATEGIES

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## CONTENTS

	Page
Summary .....	203
Introduction .....	204
Performance of the Financial System .....	205
Micro-Efficiency .....	205
Macroeconomic Stability and Monetary Policy .....	208
The 1994 Reform .....	211
Policy Issues and Strategies .....	212
Policy Loans and the Credit Plan .....	213
Relation to Enterprise Reform .....	214
Bond Market Reform .....	215
Interest Rate Policy .....	216
Monetary Policy .....	218
References .....	219

## FIGURE

Figure 1. Annual Output (GDP) Growth, Money (M2) Growth, and Inflation (1979-1995) .....	209
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## SUMMARY

This paper presents a brief, critical review of the principal features of China's financial system and conduct of monetary policy. It shows that despite its impressive growth since 1979, the financial system in essence still functions as it did before reform. With centrally allocated credits and administered interest rates, it lacks a mechanism to ensure efficiency in capital allocation. Moreover, a stop-go monetary policy combined with the inherent arbitrariness of the credit plan has produced frequent cycles of inflation alternating with growth recession.

Aware of the system's weaknesses, the authorities launched in 1994 a comprehensive financial reform program. This paper reviews the program's main elements and implementation to date. It points to several challenges of critical importance to the reform's success: policy loans, relation to enterprise reform, bond market reform, interest rate policy, and monetary policy. It also proposes concrete reform strategies, including a bond-for-policy-loan pro-

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gram, a gradualist approach to interest rate deregulation, a way to mop up excess reserves, and a choice between open-market operations and central bank lending as the principal tool of monetary policy.

## INTRODUCTION

After seventeen years of widely acclaimed economic reform, by 1996 China finds itself still shackled by two vestiges of its pre-reform days: a large, inefficient state enterprise sector and an essentially unreformed financial system. The former continues to absorb and waste an enormous amount of the nation's resources, and the latter squanders the nation's precious savings in an arbitrary manner and generates recurrent bouts of rising inflationary pressures. Both are major hurdles on the nation's way towards attaining its goal of building a "socialist market economy" by early next century.

To describe China's financial system today as "essentially unreformed" may surprise many. The impressive growth of its financial sector from a mono-bank system of the Soviet command-economy type prior to reform to the large variety of financial institutions and markets today is an undisputed fact. What is "essentially unreformed" is the manner in which the system absorbs the nation's savings, creates money, and converts all these into credits for distribution to final users of capital. It is in the performance of this basic function of finance that China's financial system continues to be in essence more akin to the Soviet type than to that of a market economy.

Because of the central importance of finance in a national economy, this vestige of the past can be compared to a faulty cardiovascular system in an otherwise healthy human body. Parts of the body that are close to the heart receive a disproportionately large amount of the blood supply; terminuses or blocked areas must depend on newly grown bypasses that manage to siphon from the main arteries. What is particularly dangerous is an inherent tendency for the heart to beat too fast—and, if unchecked, increasingly fast—that routinely disrupts the normal functioning of the whole body and at times can lead to life-threatening conditions.

The rest of this paper attempts to substantiate this simile. Section II critically reviews the principal features of China's financial system, with regard to its microeconomic allocative efficiency and conduct of monetary policy in relation to macroeconomic stability. Aware of its many deficiencies, the authorities launched in 1994 a comprehensive and thorough reform of the financial system. Section III examines the highlights of the reform program and its implementation to date. Section IV presents our thoughts on several major challenges in carrying out the reform program—policy loans, relation to enterprise reform, bond market reform, interest rate policy, and monetary policy—as well as our recommendations on reform strategies in these areas. Specifically, we propose a bond-for-policy-loan program, a gradualist approach to interest-rate deregulation, a way to mop up excess reserves, and the use of either open-market operations and central-bank lending as the principal instrument of monetary policy.

## PERFORMANCE OF THE FINANCIAL SYSTEM

## MICRO-EFFICIENCY

Since economic reform began in 1979, the financial industry has been one of the fastest growing industries in China. From 1979 to 1994, while nominal GDP grew ten times, bank deposits (BD) increased 18 times, so that the BD/GDP ratio rose from 0.33 in 1979 to 0.56 in 1994. Using a wider measure to include deposits in some nonbank financial institutions, the M2/GDP ratio increased from 0.58 in 1985 to 0.82 in 1990 and 1.00 in 1994.<sup>1</sup> These measures reflect the rapid "monetization" or "financial deepening" of the Chinese economy.

Financial deepening is also reflected in the rapid growth of a wide variety of financial institutions and markets in China. Starting from only one single bank, the People's Bank of China (PBC), in 1979, the system now consists of one central bank, four large state banks—which together accounted for 72 percent of total financial assets—16 other nationwide and regional banks, tens of thousands of rural and urban credit cooperatives, and scores of other types of nonbank financial institutions, such as trust and investment companies, insurance companies, finance companies, leasing companies, securities dealers, and mutual funds.<sup>2</sup> In addition, there are active money and capital markets. Together, the system offers households, businesses, and the government a much wider choice of channels and instruments in which to put their savings and from which to seek credits.

Yet, despite its phenomenal growth in size and form, China's financial system today is functionally faulty and incompatible with the vibrant market forces that have been released since 1979 by reforms in the rest of the economy. The root of the problem lies in the pervasive government control of the financial system.

The problem is manifested in several characteristics of China's financial system. First, virtually all the financial institutions are directly or indirectly owned and operated by the government. Bank staff carry out government directives and have little experience in assessing financial risks. The situation is further complicated by the decentralization of the government itself. Following a pattern mandated by former economic planning, the bank branch networks coincide with the political division of the country; and each local bank branch is under the "dual leadership" of its head office and the local government, as before reform. Where local interests are in conflict with the center's, as often happens, the local authorities usually have the upper hand, because the branches must rely on local support for their day-to-day operations. The result has been fragmentation of the financial system and sometimes local protectionism that impedes the development of nationwide financial markets and interregional fund transfers.

*Second*, until recently credit was allocated according to the old credit plan. Although the scope of the credit plan has been reduced and its mode of operation significantly altered (See Section III below), there are reasons to suspect that the change has involved

<sup>1</sup> World Bank, 1996, Annex, Tables 1, 14, and 16, pp. 35, 48, and 50, respectively; and World Bank, 1990, Annex, Table 1.1b, p. 132.

<sup>2</sup> World Bank, 1996, Vol. I, Table 3.1, p. 24.

only a shift in form, not in substance, and that the old credit plan continues to lurk behind in a changed form to dominate the functioning of the financial system. (See Section IV.1 below.) In any case, whether this suspicion is well founded, it is essential to have a clear idea of how the credit plan worked in the past in order to understand its pervasive influence in the financial system and appreciate the significance of the changes that are currently taking place.

Prior to 1995, each year the local branches of the PBC worked with the finance and economic planning bureaus of the local governments to draft credit plans that gauged the working capital and fixed capital needs of local businesses in the next year. These draft local plans were then submitted to the PBC head office in Beijing to work out a national credit plan in consultation with the Ministry of Finance and the State Planning Commission, before being submitted for the State Council's approval.<sup>3</sup>

There were two dimensions to the credit plan. The vertical dimension specified the total credit ceilings of the six nationwide major banks and other major financial institutions, and the horizontal dimension the total credit ceiling for each of the 29 provinces and autonomous regions and the two special municipalities, Shanghai and Shenzhen. The vertical dimension was monitored by the PBC head office, and the horizontal by the PBC provincial or municipal branches. The plan set separate credit ceilings for working capital and fixed capital.

Direct credit control has been used in market economies as well, but nowhere has it been as specific and detailed as in China, where the credit plan specified the credit ceilings not only for each bank and each province but also for each industry and each enterprise within the plan. Those that were included in the plan were assured of receiving the coveted credit; those that were left out must fend for themselves to seek financing from institutions and markets that are either not included in the plan or included but subject only to lax enforcement.

Third, interest rates have been used as a tool to attract and retain bank deposits, but thus far have played virtually no role in the allocation of credits. As prior to reform, they are still set nationally by the highest executive organ of the government, the State Council. The rates have consistently been below market-clearing levels and often, as in 1987–89 and again in 1993–95, below the prevailing inflation rate. Cheap credit means arbitrary allocation by the authorities nominally according to national and local priorities, but in practice often also the result of political influence or unadulterated corruption. Moreover, in many cases it leads to excessively capital-intensive production or investment with dubious returns. Anecdotal evidence suggests that in China today, even amidst a booming economy, there are factories with newly installed machinery standing idle, and fully-staffed luxury hotels more than half empty, because the expected market is not there.

Fourth, the banks are loaded with bad debts. Under the old credit plan, if an enterprise was included in the credit plan, its bank must provide it its allotted credit, regardless of its creditworthi-

<sup>3</sup> World Bank, 1990, pp. 37–40; World Bank, 1995, Annex 3.1, pp. 116–117.

ness. Since no detailed audit has ever been conducted, no one knows the extent of nonperforming loans in bank portfolios. One official estimate is 20 percent, which may be too low. The World Bank calculates that the net worth of the four large state banks is probably negative.<sup>4</sup>

Fifth, there has been phenomenal growth of various types of financial institutions and markets outside the banking sector. Other countries that have experimented with direct credit controls have found that the market has marvelous ways to get around the controls. In China too, by-passes have developed through less-regulated nonbank financial institutions and informal curb markets which are not regulated at all.

Nonbank financial institutions developed in the late 1980s. Then, as now, local governments were anxious to have their regions participate in the rapid economic growth that was then just starting, but were frustrated by the tight control of the credit plan. This led the local branches of the state banks as well as local enterprises to establish urban credit cooperatives, trust and investment companies, and finance companies, in order to operate outside the credit plan. In the liberalizing environment at that time, these actions were looked upon with favor as innovations to broaden the scope and structure of the financial system. By 1989, however, after the financial crisis of the summer of 1988, the political atmosphere changed, and all the nonbank financial institutions were brought into the folds of the credit plan.

Enterprises also raise funds through an informal channel called the curb market. For instance, an enterprise might distribute a handbill inviting its employees, their relatives and friends or acquaintances—in fact, anyone—to leave their money with the enterprise for, say, one year for a 20 or 25 percent return, significantly higher than the current one-year bank deposit rate of 9.18 percent.<sup>5</sup> These informal channels are prevalent among developing nations with repressed financial systems. They are a part of what the authorities would call “leakages” in their credit controls, but perhaps have been an important factor in keeping the sectors that are left out of the credit plans growing rapidly even during periods of austerity and tight credit control.

Sixth, credit control and interest rate restrictions have also limited the development of money and capital markets. China's bond market is dominated by Treasury bonds, which accounted for 70 percent of the total capital market turnover in 1994.<sup>6</sup> The Ministry of Finance began to issue these bonds in 1981, but because the terms were unattractive they had to be sold by compulsory subscriptions to enterprises and individual workers through their workplaces. A bond market has developed only since 1986 to include besides Treasury bonds also small amounts of enterprise bonds, financial institution bonds, and local government bonds.

Stock exchanges began operation in Shanghai in 1990 and in Shenzhen the next year. They are noted for their high price volatility. Despite the attention they have attracted both from abroad and domestically, by the end of 1994 the cumulative amount of cap-

<sup>4</sup> World Bank, 1996, Vol. I, p. 32.

<sup>5</sup> World Bank, 1990, p. 31; *The People's Daily*, May 1, 1996, p. 1.

<sup>6</sup> Almanac, 1995, p. 312.

ital raised in these markets was only RMB 64 billion, a minute amount compared to the gross domestic investment of RMB1.9 trillion in 1994.<sup>7</sup>

China's money market consists of an interbank market and markets for Treasury bills, commercial paper, and negotiable certificates of deposit. The interbank market has had some unusual problems, as unscrupulous financial institutions have used this market not for very short term liquidity management, but to fund long-term loans, and even for land and stock market speculations.<sup>8</sup>

All issues in the money and capital markets must be approved by the authorities. Besides prudential considerations, the principal motivation for controlled access has been a desire to protect the banks, which are the primary channel of credit control, against competition from the open market.

Seventh, a basic problem with China's financial system is the lack of the requisite social infrastructure to insure its soundness and stability. Basic essentials, which are taken for granted in market economies—such as dependable accounting systems, contract and securities laws, trained banking personnel, rules of bank supervision and regulation, a nationwide fund clearing and settlement system—are either still being developed or waiting to be implemented. These problems are by no means unique to China, but they are worse in China than in other developing countries.

#### MACROECONOMIC STABILITY AND MONETARY POLICY

Allocating savings to their most productive uses is only one function of a financial system. Another is to provide an appropriate growth rate of the money supply to keep the price level relatively stable. In China, even if the price level were stable, the money supply would have to increase at a high rate, both because of the high growth rate of real income, and also because of the increasing monetization of the economy, which is a common feature of the early stages of economic development. Moreover, in China the demand for money is also increased by the shift from centrally-planned economic control to a market economy. Unless this growing demand is met by sufficient money creation, sales growth will be retarded, inventories will pile up, prices will fall, production will be cut back, and unemployment will rise.

In modern times, the management of the money supply, i.e. monetary policy, is a responsibility of the nation's central bank. The central bank creates money indirectly either by purchasing assets (e.g. gold, foreign exchange, bonds, commercial bills) or by directly lending to institutions (e.g. governments, banks, and other kinds of financial institutions). It finances these purchases and loans by issuing claims on itself, claims that take the form of currency in circulation and deposits of the financial institutions with the central bank. These claims, created by the central bank simply by making entries on its books, serve as reserves for banks and are used by banks for multiple deposit creation.

In China, this monetary policy function is the responsibility of the People's Bank of China. To see how well the PBC has per-

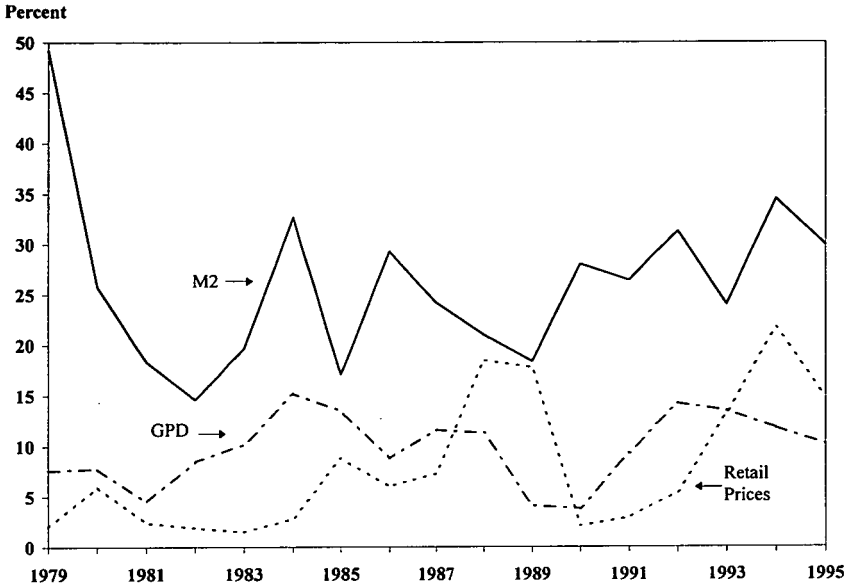
<sup>7</sup> Almanac, 1995, p. 312; and Yearbook, 1995, p.36

<sup>8</sup> Mao, 1994, pp.179-183.



formed this function, Figure 1 plots the annual growth rates of GDP, retail prices, and broad money (M2),<sup>9</sup> for the years 1979–95.

**Figure 1. Annual Output (GDP) Growth, Money (M2) Growth, and Inflation (1979–1995).**



Since besides monetary policy there are many other factors—such as the gradual lifting of price controls, foreign trade liberalization, and fluctuations in harvests—that could have affected output and inflation, a close association of the money growth rate with output growth and inflation is not to be expected. Indeed, Figure 1 shows only a weak relationship between changes in the money growth rate, GDP, and prices.

Nonetheless, Figure 1 does show an interesting pattern of association. During these 17 years, output, money growth and inflation all display a high degree of instability. But, since 1984, ignoring some erratic peaks and troughs, they have moved roughly together. Thus, the extraordinarily high M2 growth in 1979 and 1980 was accompanied by rapid GDP growth in those two years. Rising inflation then induced the authorities to restrain money growth tightly for three years (1981–83). It was in that period of low and relatively stable monetary growth that China enjoyed a rare episode of rising output growth coupled with low inflation. The abrupt leap of M2 growth in 1984 broke the spell. Thereafter, an unstable M2 growth rate has been followed by sharp fluctuations in output growth and inflation.

<sup>9</sup>The selection of broad money (M2) over narrow money (M1) and currency in circulation (M0) is based on the results of the vector autoregression (VAR) study in IMF, 1994, Appendix II, pp. 54–59, which indicates a superior predictive power of M2 over the other two for fixed investment, industrial production, and inflation during the sample period 1985–93.

Unstable money growth in China reflects a stop-go monetary policy that was practiced also in many other countries (e.g. Britain in the 1960s) and subsequently abandoned when it was discovered to be the principal source of macroeconomic instability. In China, too, the authorities, anxious for rapid output growth and job creation, tended to adopt monetary policies that were too expansionary, and then, in the face of rising inflation, to clamp down on credit and money creation. Disturbed by the resultant slower growth and rising unemployment, they then again relaxed credit and monetary controls, thus setting the stage for the upswing phase of the next cycle.

Operationally, there are three major channels through which the PBC funnel base money to the national economy. They are: lending to the government, purchase of foreign reserves, and lending to financial institutions. The central bank's balance sheet shows that fiscal access to the central bank was an important source of money creation prior to 1988, but since then has largely fallen into disuse.<sup>10</sup> Purchase of foreign reserves has been a sporadic source, except in the last two years, 1994 and 1995, when it accounted for 71 percent and 63 percent respectively, of base money creation, reflecting the large foreign capital inflows in those two years. In contrast, lending to financial institutions has been the only consistent, major channel of base-money creation.

In China, base money creation is a by-product of the credit plan. The PBC, by lending to financial institutions, provides them with the reserves they need to make the loans required by the credit plan. As previously described, the credit plan is a vestige of the old central planning regime. Although reforms have reduced the physical production plan, its counterpart, to a mere shadow of its former self, until recently the credit plan has remained both the guideline and the principal instrument of monetary and credit policy in China.

The strictness with which the plan was enforced by the central government reflected swings of the pendulum between the government's policy of centralization and decentralization. Thus, in the heyday of decentralization from 1985 to 1988, the credit plan was administered in a way that gave local PBC branches much autonomy, which they wielded with considerable liberality. Moreover, in many cases the local authorities also took it on themselves to use their considerable political power to get the central authorities to raise the credit ceilings. In some years, credit ceilings were lifted so many times that the final quotas for the year were not firmly established until the end of the year. But, then, by the summer of 1988 when inflation accelerated to a dangerous point, the central authorities clamped down abruptly and demanded strict enforcement of the credit plan.

However, the cynics have learned from experience that tight credit inevitably inflicts pain, and when pain becomes strong enough, credit will again be eased. Moreover, during such stop-go cycles, many channels, both legal and illegal, have been developed to circumvent credit control, so that even during times of tight con-

<sup>10</sup> World Bank, 1996, Annex, Table 15, p. 49.

trol credits are still plentiful for those who know the ropes and can afford to pay.

### THE 1994 REFORM

In November 1993, China unveiled a new and ambitious reform program, which was launched in early 1994. Unlike the tentative and piecemeal reform measures that had been successively adopted since 1979, this program was at once comprehensive and systematic, aimed at completing the extended reform process by early next century in order to have in place the overall structure, if not the details, of "a socialist market economy with Chinese characteristics." The program covers the reforms of a wide spectrum of economic sectors.<sup>11</sup> In this paper, we discuss only the reform of the financial system.

The financial reform program aims at a fundamental overhaul of the entire financial system: the central bank, commercial banks, nonbank financial institutions, and money and capital markets. Starting with the enactment of basic laws governing the mode of operations of each of these components, it seeks to develop an integrated, market-oriented financial system for attaining macroeconomic stability and allocative efficiency, while taking account of the government's policy objectives.

Implementation of the reform program has already started. In March 1995, a Central Bank Law was passed.<sup>12</sup> It has several especially noteworthy features: First, the aim of monetary policy is "to maintain the stability of the value of currency and thereby promote economic growth." Thus, China has become one of a small number of nations that have legislated price stability as the sole aim of monetary policy. Second, the central bank is prohibited from providing advances to the central government or direct subscription to government bond issues. Third, the law also prohibits the central bank from lending to local governments, nonbank financial institutions, other organizations or individuals—except as directed by the State Council. It expressly states that the central bank is to carry out its monetary policy and bank supervision-regulation functions "under the leadership of the State Council." The centralization of authority in conducting monetary policy is made even more explicit by stipulating civil and criminal penalties against local government officials, other organizations and individuals for forcing the central bank and its officials to provide credits against the provisions of the law; however, there is no similar stipulation on State Council officials.

In addition, the central bank has decided to shift gradually from the credit plan to indirect monetary policy measures. It plans to use open-market operations as the principal policy instrument, supplemented by changes in reserve requirements, discount rates, and administered interest rates.<sup>13</sup>

The reform also envisaged a complete overhaul of the banking system. In May 1995, a Commercial Bank Law was passed.<sup>14</sup> It

<sup>11</sup> For a comprehensive analysis of the reform program, see IMF, 1994.

<sup>12</sup> Almanac, 1995, pp. 333–335.

<sup>13</sup> IMF, 1994, p. 19.

<sup>14</sup> Almanac, 1995, pp. 335–339.

provides that after a transition period of unspecified duration all the state banks will be transformed into commercial banks operating according to market principles: that is, to maximize profits and minimize risks. Once transformed, the commercial banks will operate as corporations, observe internationally accepted prudential rules (such as meeting capital requirements and limiting lending to any single borrowers), establish internal auditing control procedures, and be subject to the central bank's supervision and regulations. Their present policy-lending responsibility will be shifted to three new policy-loan banks. Both deposit and lending interest rates will continue to be set by the central bank but may vary within prescribed limits. To ensure equal treatment, all deposit-taking institutions—including the 5,000 urban credit cooperatives, 50,000 rural credit cooperatives, and the 26,000 postal savings offices—will be considered as commercial banks.<sup>15</sup>

To protect depositors, commercial banks will not be allowed to invest in nonbank financial institutions, nor will they be permitted to engage in trust, stocks and real-estate investments inside China. They will be required to divest the large number of nonbank financial institutions they currently own.

Three policy banks were established by the 1994 reform. The State Development Bank is to provide low-interest, long-term loans for infrastructure and "key" industry fixed investments. The Agriculture Development Bank is to finance state procurement of agricultural products and agricultural infrastructural development projects. And the Import and Export Bank is to provide long-term funding of capital-goods imports and exports, especially for the machinery and electrical industries.

The financial reform program also envisages strengthening the regulation and supervision of nonbank financial institutions and of the money and capital markets. Laws were passed in 1995 to regulate financial and commercial bills, debt-instrument guaranties, and insurance. In January 1996, the previous regional interbank markets were unified into an integrated national market.

Lastly, the credit plan has been substantially changed. Information on the changes is scanty, as unlike in the case of other measures of financial reform, there has been no public announcement of the changes. The best we can make out from inquiries to sources within the PBC is that since the first half of 1995 only the six large nationwide state banks are still subject to direct credit control; all the other banks and nonbank financial institutions are subject only to PBC regulations on asset/liability ratios. Total credit quotas are assigned by the PBC to the head offices of the six large state banks, which in turn allocate quotas to their provincial branches. The PBC provincial branches supervise the implementation of the quotas but cannot interfere with their distribution within their respective jurisdictions.

#### POLICY ISSUES AND STRATEGIES

The 1994 reform is the most ambitious economic reform program China has undertaken since 1978, and financial reform constitutes a crucial part of this program. It embodies a well-conceived ap-

<sup>15</sup> Almanac, 1995, pp. 567 and 578.

proach to transform the present backward, chaotic, and bureaucratic financial structure into a modern system guided by market principles and appropriate prudential regulations. However, its implementation will require careful sequencing, staunch and steady support at all levels of the government, as well as fundamental changes in thinking. We will examine some of these issues, discuss their inter-relationships, and propose a few specific reform measures, without any pretense of offering a comprehensive plan of action for the implementation of the reform program.

#### POLICY LOANS AND THE CREDIT PLAN

It would be an illusion to imagine that the mere establishment of the three policy banks will solve the policy-loan problem of banks. Aside from the management problems of these three banks, which are enormous, a more fundamental question is how helpful to the rest of the banking system these banks can be. Without a complete and thorough audit of all bank portfolios, which we understand has never been undertaken, there is no way to determine how large a portion of total policy lending the three banks cover. The uncovered portion must be quite large, as all of the presently mandated bank lending to support loss-making state enterprises, promote the expansion of enterprises in what the authorities deem to be "key" industries, and help economic development in the nation's poor regions may fall into that category. Given the present state of the government budget, it is hard to see how the burden of the basically fiscal policy objectives of policy loans could be lifted off the backs of the state banks; yet, it is equally difficult to see how with that burden still on their backs these banks could become truly autonomous commercial banks operating on market principles.

The problem is rooted in the society's thinking. In both market and centrally-planned economies, the primary role of banks is to meet the economy's credit needs. In market economies, the needs are the general needs of the economy. But, in China the perceived needs are sector-specific, region-specific, and even firm-specific. The old credit plan was the policy instrument for meeting these needs and was clearly incompatible with the market approach to credit allocation.

The authorities' recent action to replace the old credit plan was a major step toward letting the market allocate credit. It has taken the central bank out of specific credit control. But, it would be naive to think that therefore specific credit allocation is dead. Within the bureaucracy in China, the action could very well mean only that the job has been passed on to the six large state banks. To reach a judgment on the action's true significance, one would have to wait and see how much autonomy the banks really have in managing their portfolios. Simple logic would suggest that so long as the perceived specific credit needs still dominate the functioning of the financial system—and there has been no sign of their decline in importance—the banks must continue to carry the burden of policy loans, and progress toward a market approach of conducting monetary policy would continue to be impeded.

Despite the recent action by the PBC, therefore, the financial system today is still confronted with two major challenges: (1) How

to resolve the policy loan problem? and (2) How to develop effective indirect monetary control? The rest of this paper will explore these two questions.

#### RELATION TO ENTERPRISE REFORM

A major part of the policy loan problem has been the dependence on banks to bail out loss-making state-owned enterprises (the SOEs). Even in the boom year of 1994, about half of the 100,000 SOEs incurred losses. Though accounting for only about 40 percent of total industrial output, the SOEs absorbed two-thirds of total domestic credit that year.<sup>16</sup> That is obviously too much. Seemingly, the government is caught in an unsolvable dilemma: refusing loans to loss-making enterprises would cause widespread bankruptcies and unemployment, which is politically unacceptable, but continuing to provide loans to them would wreck financial reform. Some have argued that therefore financial reform must be held off till enterprise reform is essentially completed.

The argument has a chicken-or-egg character to it. If loss-making state enterprises depend on continued supply of bank credit to stay afloat, indiscriminate credit supply also relieves them from pressures to improve their financial performances. Only by simultaneous reforms of both sectors could this vicious circle be broken. But, how?

One possibility is to replace bank financing by bond financing. The basic idea is to gradually shift the burden of policy lending from banks to the governments that sponsor the loss-making enterprises. If currently they do not have the means to bear the costs, they must borrow and be held financially responsible for their debts. To be able to borrow, they must possess taxing power. In China, only the central government or the provincial and special-municipal governments have this power.

The shift from bank financing to fiscal financing cannot be made overnight. Sufficient time must be allowed for all parties to make the necessary adjustments. During the transition period, say, over ten years, the sponsoring government of loss-making enterprises would be authorized to issue a special Enterprise Reform Bond to the full amount of the policy loans under its sponsorship. The bond would be backed by the taxation authority of the issuer. In the first year, the banks would be required to subscribe to the full amount of the bond issue in proportion to their shares of the policy loans. The bond issue would decrease in subsequent years according to a pre-determined schedule, to zero after the tenth year.

During the first year, nothing is changed: the banks would continue to provide policy lending as they do now. But, everyone, including the sponsoring governments, would be put on notice that policy lending will be phased out as scheduled. In the meantime, the governments must work with the enterprises under their sponsorship to come up with schemes to reduce and ultimately eliminate the enterprises' losses or, if they wish, for the governments to assume the responsibility of subsidization.

This approach incorporates the principle of fiscal accountability and compels local governments to take responsibility for solving

<sup>16</sup>IMF, 1994, p.41.

local problems. Too often, the central government takes it on itself to find solutions for problems of the whole nation. With a limited number of already overworked, competent staff members in the central government's ministries and commissions, and the diversity of conditions in a vast nation, it would be folly to expect the central government to design an enterprise-reform program and establish rules that would fit all localities. Under our combined financial/enterprise reform approach, all local governments that are the ultimate sponsor of the currently loss-making local enterprises within their respective jurisdictions would be called on to work with these enterprises in order to find their own solutions within the prescribed transition period. At the same time, the central government must set an example and not seek relief by pressuring the central bank to come to the assistance of failing state enterprises under its jurisdiction.

This approach does not represent a radical departure from the experimental enterprise-reform program the government has already begun. Under that program, in addition to the central government's own experiments with different forms of enterprise ownership, 18 major cities have been selected to design and experiment with their own plans for comprehensive reform of the state-owned enterprises within their respective jurisdictions.<sup>17</sup>

Our scheme, however, takes the program further by requiring each province and special municipality as well as the central government to take responsibility for the failing state-owned enterprises under its sponsorship and not leave the burden on the banks. It is the explicitly stated, gradually hardening budget constraint that is lacking in the present segmented enterprise reform program, and characteristic of our integrated financial/enterprise reform proposal.

The transition period is a feature that requires highlighting. The scheme's success will depend critically on how well the time is used to effect the requisite changes. Given the prospect of being ultimately freed from policy lending, the banks can focus on preparing for their transformation into market-oriented commercial banks. The central and local governments will have time to strengthen their revenue base for servicing their enterprise-reform bonds, as well as to work with the failing state enterprises on stopping their financial hemorrhage. And the enterprises themselves facing gradually hardening budget constraints will be compelled to find ways to lessen their dependence on state subsidies.

In short, as already stated but is worth reiterating: the proposal gives explicit recognition to the close interdependence of financial reform and enterprise reform; the two must proceed together for either to succeed.

#### BOND MARKET REFORM

Assuming no reform of the bond market, the financial/enterprise reform scheme just proposed would require banks to purchase the bonds and hold the bonds. With bond market reform, however, compulsory subscription could be replaced by voluntary holding,

<sup>17</sup> IMF, 1944, p. 44; World Bank, 1996, pp. 16-17.

much to the benefit of the banks and the financial system as a whole.

China resumed bond issuance in 1981.<sup>18</sup> At first, only the central government was allowed to issue bonds, and their purchase was forced upon local governments and enterprises as another form of taxation. A bond market began only in 1986 when a few banks and enterprises were authorized to issue bonds and purchases of all bonds became voluntary. Thereafter, the market developed rapidly. From Y40 billion at the end of 1986, outstanding bonds rose to Y300 billion by the end of 1993. The volume of issue tripled from Y38 billion in 1993 to Y113 billion in 1994, and was expected to reach Y150 billion in 1995. Secondary markets were opened in 1988. They developed even faster: trading volume rose from Y2.2 billion in 1989 to Y105 billion in 1993. Trading technology also improved rapidly. The facilities on the Shanghai and Shenzhen exchanges now are comparable to those in advanced countries, with screen-based, satellite-linked systems, continuous order matching, and the capacity for same-day settlement.

All the same, the development of the bond market has been hampered by the government's ambiguity toward the market. While appreciating its advantages, the government also views the bond market as a potential drain of funds from the banking system, hence from controlled channels of credit. Not only have bond issues been strictly limited, but also their interest rates have been pegged to long-term bank deposit rates in order to minimize their competition with banks for funds.

Although conditions are in general better in the secondary markets than in the primary markets, the former too suffer from a serious lack of liquidity, thus limiting the attractiveness of holding bonds. This lack of liquidity is due to the underdeveloped state of money markets for bond investors to move funds. And the underdeveloped state of the money markets in turn can, again, be traced to interest rate ceilings and the credit plan which controls short-term money-market issues.

Increasingly, though, the authorities have come to appreciate the importance of a well-functioning bond market. Their decision to ban the government's access to central bank credits has forced the Treasury into the bond market. It was the principal factor behind the tripling of bond issues in 1994 from 1993. The central bank, too, has decided to experiment with open-market operations as an instrument of monetary policy. Hence, for both fiscal and monetary policy operations as well as the general health of its financial system, China needs to strengthen its capital and money markets.

#### INTEREST RATE POLICY

Under the credit plan, interest rates have been used only to attract bank deposits, but played little role in credit allocation. As in all countries that use quantitative controls to allocate capital, interest rates are kept low in the mistaken belief that this policy would stimulate capital investment and hence economic growth. However, other countries have found that low interest rates reduce domestic savings and encourage capital flight, hence in the long

<sup>18</sup> Data on this subject are from World Bank, 1995b.



run do not add to domestic capital formation, but result in misallocation of capital.

In China, an additional consideration for keeping interest rates low has been the perceived dependence of state-owned enterprises on low-interest bank loans. It is alleged that through long-established tradition these enterprises have come to view low-interest bank credits as a right, and many have become dependent on them for survival. Those that are making losses do not service their debts in any case, and are therefore immune to changes in interest rates. Those that are profit-making loudly claim that they are already bearing most of the tax burden, and that interest rate deregulation would surely drive them into bankruptcy. The combined opposition of these politically powerful voices has made it difficult for the central bank to deregulate interest rates. Moreover, it is argued that the banks have been accustomed to function only as loan-dispensing agents under the credit plan, and therefore are institutionally not prepared to evaluate credit risks and respond to changing market conditions. Thus, in the minds of many a vicious cycle has been created: control over interest rates cannot be eased because allegedly the market is not ready for it, but the market cannot be developed without the easing of interest rate controls.

Fortunately, the cycle exists only in the minds of men. It is broken as soon as one realizes that interest rate deregulation is not an on-off, yes-or-no matter. There are many kinds of interest rates. Deregulation does not necessarily mean lifting controls on them all at once. It is true that through arbitrage all interest rates are closely related to one another in market economies where funds are free to move across markets. But, in countries like China, where the markets are highly segmented through existing differentiated quantitative controls, gradual interest rate deregulation is still feasible with proper sequencing and coordination with other parts of the reform program.

Thus, if banks and their borrowers need time to adjust, then for the time being let bank lending and deposit rates be administered as they are now, but make sure that the banks and their borrowers work out transition plans to prepare for eventual interest-rate deregulation. What can be and should be quickly deregulated are money and capital market interest rates. Since early 1996, inter-bank rates have already been freed. Short-term rates should be next. Money markets—such as those for commercial paper, Treasury bills, negotiable certificates of deposit—would develop quickly, once controls over issuance are eased and interest-rate limits are abolished or widened. Development of these markets is crucial for the central bank's open-market operations as well as for facilitating liquidity management of financial institutions and the government. Moreover, it would pave the way for the development of a well-functioning long-term bond market.

A concern about partial interest rate deregulation is that it would divert funds out of the banking sector and thus cause disintermediation. However, disintermediation has already occurred on a large scale as a result of bank interest-rate regulations, with financing outside the banks being conducted in a chaotic, unorganized manner. A program to develop money markets through interest rate deregulation *and* establishing rules of participation

would bring order to what already exists. Moreover, competition may be what the banks fear, but it is only through competition that they would be pressured to reform and gain experience in the market. Also, concerns over "excessively" high money-market interest rates could be eased by the authorities' continued oversight. If necessary, they could adjust the volume of bond issuance to moderate the demand for credit in the market.

#### MONETARY POLICY

The People's Bank of China already possesses an almost full complement of indirect monetary control tools: reserve requirements, open-market operations, discount facilities, and loans to banks. However, though well equipped, it has conducted monetary policy in effect only through the credit plan. The result of this failure to use indirect monetary policy instruments has created a bewildering set of reserve requirements in China.<sup>19</sup> Banks are required to hold 13 percent of reserves and another 5 to 7 percent excess reserve against their deposits, for a total of 18 to 20 percent. Moreover, the 13 percent required reserves are frozen assets; only the excess reserves can be used to settle payments.

This peculiar arrangement came out of the operations of the credit plan. To meet the ever-rising funding requirements of the credit plan, the central bank has supplied a rising volume of reserves through lending to banks. This resulted in mounting bank reserves, which became excess reserves whenever the credit plan was the binding constraint in credit extension. To mop up the resultant excess reserves, the People's Bank of China froze the required reserves and slapped on top of them excess reserve requirements. Excess reserves continued to accumulate and exceeded the total reserve requirements to the extent of between 15 and 18 percent of the total bank deposits at the end of the three years 1989, 1991, and 1993.<sup>20</sup> Normally, in a market economy where a reserve-based, indirect monetary policy is operative, huge excess bank reserves would signal a monetary policy out of control and rising inflationary pressure. But, not in China, where the effective monetary control has been the credit plan, not any of the indirect monetary policy tools.

The planned shift to indirect monetary control, therefore, would necessitate a thorough house-cleaning to sort out the various existing hitherto unused policy tools and get them in shape for use. Specifically, means must be found to mop up the huge accumulated excess reserves. One way would be for the central bank to issue a bond to mop up the excess reserves. The bond issue could be sold by auction to banks only. It would be redeemable only when called by the central bank, and in amounts to be determined by the central bank as a means to inject reserves into the economy. Since the initial issue could be as large as desired, the central bank could use the opportunity to combine the present excess and regular reserve requirements and lower the total to, say, 10 percent,<sup>21</sup> with-

<sup>19</sup> World Bank, 1995a, pp. 41-42.

<sup>20</sup> *Ibid.*, Table 3.3, p. 42.

<sup>21</sup> High reserve requirements weaken banks' competitive position in the market and thereby encourage disintermediation.

out the expansionary effect on the money supply usually associated with a reduction in reserve requirement.

The bond would not be counted as part of reserves, but could be marketable among banks so that a bank with good lending opportunities could obtain additional reserves by selling its bonds to another bank with surplus reserves. To the extent that the bond is as transferable as bank reserves, this would turn into another interbank market parallel to the existing interbank funds market, to facilitate banks' liquidity management. Like the interbank funds market, the interbank bond market would not affect the total reserves.

In addition, the central bank should experiment with various indirect monetary control tools to see which one would serve best. From other countries' experiences, the choice is between open-market operations and lending to banks. Both provide the flexibility and effectiveness needed for monetary policy. Open-market operations might appear to have the advantage of non-arbitrariness in the distribution of reserves, but the same effect can be achieved if lending to banks were operated on an auction basis to achieve allocation through the price mechanism. Lending to banks has the advantage of minimal extraneous requirements, such as well-functioning money markets, which China presently lacks.

Lending to banks by auction is quite different from the discount facility of most central banks, including China's, which makes reserves available on tap, that is, open to all qualified institutions that come with eligible paper. In contrast, lending to banks by auction would distribute reserves on a fixed schedule, say, weekly, for a pre-announced amount of reserves. The interest rate would be determined by the market, not set by the central bank as in the case of the discount rate. This new facility could exist side by side with a usual discount facility available on tap, such as used by the German central bank, with the former adjusting the banking system's total reserves and the latter assisting in individual banks' reserve management.

Whether open-market operations or lending to banks by auction is chosen as the principal monetary policy instrument, in either case interest rates must be allowed to vary and the banks must be truly market-oriented. Neither condition exists in China today. Both are challenges the monetary authorities must meet in the next several years if financial reform is to succeed.

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# LAW REFORM AND CHINA'S EMERGING MARKET ECONOMY

By Pitman B. Potter \*

## CONTENTS

	Page
Summary .....	221
Market-Oriented Law Regimes in the PRC .....	223
Contract Law .....	223
Property Law .....	224
Dispute Resolution .....	224
Courts .....	225
Arbitration .....	225
Finance Reform: Foreign Exchange, Taxation and Securities .....	226
Foreign Exchange .....	226
Taxation .....	227
Individual Income Tax .....	227
Value Added Taxes .....	227
Tax Enforcement .....	228
Securities Regulation .....	228
Administrative Reform .....	230
Foreign Economic Relations: Trade and Investment .....	231
Trade .....	231
Foreign Investment .....	232
Obstacles to Enforcement and Implementation .....	235
Problems of Approach: Instrumentalism and Formalism in the Role of Law .....	235
Problems of Implementation: Policy Indeterminacy and Regulatory Inconsistency in the Management of Foreign Investment .....	237
Problems of Policy Indeterminacy .....	237
Inconsistent Regulatory Performance .....	239
Conclusions .....	241

## SUMMARY

The Chinese government's economic reform program during the post-Mao era has been supported in part by a parallel effort at legal reform. China has enacted since 1978 an impressive number of laws and regulations aimed at supporting the transition towards a socialist market economy. Legal relationships such as contract, property and foreign business relations have been brought gradually within the ambit of a range of formal and increasingly detailed legislative and regulatory enactments. However, enforcement remains a serious problem, and as a result the PRC law regime tends to be ineffectual in lending predictability to economic activity. Approaches to the role of law that focus on instrumentalism and formalism tend to lead in turn to problems of policy indeterminacy

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and regulatory inconsistency. These pose serious obstacles to the capacity of China's legal system to support long term economic reform.

Since 1978, the Chinese government has attempted to coordinate its efforts at economic reform with a parallel program of reforms in the legal system.<sup>1</sup> Yet there are many reasons to question the ultimate success of this linkage. Among Chinese communities generally, there exists a significant gap between the reception of formal legal norms and local practices where informal ties based on notions of relationships (*guanxi*) and personal empathy (*ganqing*) have been a dominant factor in economic life.<sup>2</sup> Drawing on an historical tradition where formal legal rules have generally not been the source of norms governing economic relations, Chinese communities have often relied extensively on family networks and clan and guild rules to set the standards for commercial behavior.<sup>3</sup> Economic activities in many Chinese communities have come to be characterized by long-term relationships rather than short-term transactional approaches. The formation of agreements has tended to be based on informal promises, while enforcement has been achieved through flexible processes that take into account the circumstances of the parties.<sup>4</sup> Disputes are often handled informally and typically involve compromise by both parties in order to preserve their long term relationships. In the context of China's formerly state-planned economy, these relational approaches have been essential, since access to raw materials, bureaucratic approvals and business opportunities has depended mainly on political rather than economic resources.

The reform policies in China since 1978 have created the foundation for change, as market forces have been permitted to play a greater role.<sup>5</sup> Complementing these economic reforms has been a

<sup>1</sup>Of course legal reform addressed other goals as well, such as the need for institutional restraints on Maoist excesses, but the complementary role of law in supporting economic reform has been a major theme. See generally "Zhongguo gongchandang di shi yi jie zhongyong weiyuanhui di san ci quanti huiyi gongbao" (Communique of the Third Plenum of the Eleventh CCP Central Committee), in *Hongqi* (Red Flag), 1979, No. 1, pp. 14-21, at p. 19. Also see Peng Zhen, "Explanation on the seven draft laws made at the second session of the fifth NPC on 26th June, 1979," *NCNA*, in *Selections From World Broadcasts*, July 4, 1979, at p. FE/6158/C1. Also see James V. Feinerman, "Economic and Legal Reform in China 1978-91," in *Problems of Communism*, Sept.-Oct., 1991, p. 62; and Yin Liangpei, ed., *Jingji gaige yu jingji fazhi* (Economic reform and the economic legal system) (Shenyang: Liaoning University Press, 1985).

<sup>2</sup>See e.g. Ssu-fa Hsing-cheng pu (Department of Justice and Administration), *Tai-wan Min-shih Hsi-kuan Tiao-ch'a Pao-kao* (Report on Investigation of Civil Customs in Taiwan) (Taipei: 1968); Also see Donald DeClopper, "Doing Business in Lukang," in Arthur Wolf, ed., *Studies in Chinese Society* (Stanford, 1978) and Michael J. Moser, *Law and Social Change in a Chinese Community: A Case Study From Rural Taiwan* (Oceana, 1982).

<sup>3</sup>See e.g., Hui-chen Wang Liu, *The Traditional Chinese Clan Rules* (New York: J.J. Augustin, 1959); Susan Greenhalgh, "Families and Networks in Taiwan's Economic Development" in Edwin A. Winckler and Susan Greenhalgh, eds., *Contending Approaches to the Political Economy of Taiwan*, Armonk, N.Y. and London: M. E. Sharpe, 1988, p. 224; Hwang Kwang-kuo, "Modernization of the Chinese Family Business," in 123 *Int'l J. of Psychology* 593 (1990); and Thomas B. Gold, "Urban Private Business and Social Change," in Deborah Davis and Ezra F. Vogel, eds., *Chinese Society on the Eve of Tiananmen: The Impact of Reform* (Cambridge, MA and London: Council on East Asian Studies/ Harvard University, 1990). For discussion of the extent to which formal law remained influential in traditional China, see Hugh Scogin, "Between Heaven and Man: Contract and the State in Han Dynasty China," in 63 *S. Calif. L. Rev.* 1325 (1990).

<sup>4</sup>See e.g., Stanley B. Lubman, "Mao and Mediation: Politics and Dispute Resolution in Communist China," in 55 *California Law Review* 1284 (1967). Also see Pitman B. Potter, *Legitimacy and Contract Autonomy in the People's Republic of China: The Economic Contract Law of China* (Seattle and London: University of Washington Press, 1992).

<sup>5</sup>For an overview of economic reform policies after 1978, see e.g. Harry Harding, *China's Second Revolution: Reform After Mao* (Washington, D.C.: The Brookings Institution, 1987); Eliza-

vigorous effort at legal reform. While it is evident that many people in China welcome the legal reforms of the post-Mao period and have adjusted their activities to take them into account, it is also evident that old customs have been slow to fade, and relational economic activities are still dominant over transactional ties.<sup>6</sup> As a result expectations that Chinese legal reforms will be effectively enforced to support economic reforms often go unfulfilled. This paper examines China's economic law reforms in the context of the obstacles to implementation.

### MARKET-ORIENTED LAW REGIMES IN THE PRC

Since 1978, the PRC government has enacted a wealth of statutes and regulations aimed at supporting the market-oriented reform policies. While virtually all aspects of the Chinese legal system bear some relation to the economic reform program, several key areas of particular significance are discussed below.

#### CONTRACT LAW

China has two basic contract laws, one for domestic transactions and one for transactions involving foreigners, as well as a general civil code which contains a number of general principles applicable to contract relations.

The Economic Contract Law ("ECL," 1991, rev. 1993) governs Chinese domestic contracts, including contracts between foreign invested enterprises registered in China and Chinese owned companies.<sup>7</sup> The ECL contains basic provisions for ten different types of contracts, including sales contracts, construction contracts, lease contracts and contracts for storage of goods. Of particular importance in the original ECL were provisions recognizing the rights of the parties and authorizing strict contract enforcement, while the recent revisions replace references to the state plan with references to state policies. The law was a major component of the post-Mao economic reform policies, and represents a compromise between the market-oriented concept of "freedom of contract" and the policies of central planning.

The 1985 Foreign Economic Contract Law of the PRC (FECL), applies to all contracts between Chinese and foreign firms, and governs nearly all foreign trade, foreign investment, or technology transfer transactions.<sup>8</sup> The effect of the FECL is qualified by the UN Convention on Contracts for the International Sales of Goods, which China joined effective Jan. 1, 1988. The Convention augments and in some instances displaces FECL provisions in in-

both Perry and Christine Wong, eds., *The Political Economy of Reform in Post-Mao China* (Cambridge, MA.: Harvard University Press, 1985).

<sup>6</sup> See Pitman B. Potter, "Riding the Tiger: Legitimacy and Legal Culture in Post-Mao China," in *The China Quarterly* (June, 1994).

<sup>7</sup> See generally, James V. Feinerman, "Legal Institution, Administrative Device, or Foreign Import: The Role of Contract in the People's Republic of China," in Pitman B. Potter, ed., *Domestic Law Reforms in Post-Mao China* (Armonk, N.Y. and London: M.E. Sharpe, 1994), pp. 225-244; Pitman B. Potter, *The Economic Contract Law of China: Legitimacy and Contract Autonomy in the PRC* (Seattle and London: University of Washington Press, 1992).

<sup>8</sup> For an English language text of the FECL with analysis, see Jerome Alan Cohen, "The New Foreign Contract Law," in *The China Business Review* July-Aug. 1985.

stances where the foreign contracting party is from a signatory state.<sup>9</sup>

As well the General Principles of Civil Law (GPCL), enacted in 1986, contain provisions for civil contract relations.<sup>10</sup> The law contains important doctrinal rules on legal capacity, contract and property relations, and the consequences of infringement of legal rights. As the distinction between the FECL and the ECL suggests, the Chinese legal regime makes a basic distinction between laws applicable domestically and laws applicable to foreign matters. This was complicated further by the introduction of the GPCL, and the jurisdictional boundaries between and among the three main Chinese contract statutes are often unclear. A unified contract code is currently being drafted and may clarify matters somewhat.

#### PROPERTY LAW

The General Principles of Civil Law contain a number of important provisions on property rights.<sup>11</sup> The statute recognizes private ownership of personal property such as wages, dwelling place, books, animals and inheritance. However, ownership of land and natural resources is reserved to the state and the collective, which then may transfer usage rights to individuals and enterprises.<sup>12</sup> The GPCL also recognizes intellectual property rights, complementing a range of laws and regulations describing the rights of inventors, writers and designers. The PRC Trademark Law (1982, rev. 1993), Patent Law (1984, rev. 1993) and Copyright Law (1990) and their associated Implementing Regulations purport to protect the rights of intellectual property owners in these sectors. China's intellectual property laws and regulations are heavily influenced by the international treaty regime, as China is a signatory to most international intellectual property conventions, including the WIPO Treaty and the Berne Convention. However, reception and assimilation of the norms contained in many of China's intellectual property rules have been problematic. For these reasons, as well as due to institutional weaknesses and the role of economic self interest, enforcement has been particularly difficult.

#### DISPUTE RESOLUTION

The Chinese economic reforms have contributed to increased levels of commercial disputes, as the bureaucratic compromises that had worked effectively under the state planning system in preventing and resolving these conflicts have become less acceptable to economic actors increasingly concerned with profit and loss. As a result, China has paid increased attention to building institutions

<sup>9</sup> U.N. Doc. A/Conf. 97/18, reprinted in 19 *I.L.M.* 668 (1980).

<sup>10</sup> For an English language text with commentary see generally, William C. Jones, ed., *The General Principles of Civil Law of the People's Republic of China* (Armonk, N.Y.: M.E. Sharpe, 1989).

<sup>11</sup> For general discussion of the General Principles of Civil Law, see Edward J. Epstein, "The Evolution of China's General Principles of Civil Law," in 36 *Am. J. Comp. L.* 705 (1986); William C. Jones, "The Significance of the *Opinion* of the Supreme People's Court for Civil Law in China" in Pitman B. Potter, ed., *Domestic Law Reforms in Post-Mao China* (Armonk, N.Y. and London: M.E. Sharpe, 1994), p. 97; Jonathon Ocko, ed., "The Emerging Framework of Chinese Civil Law," 52 *L. and Contemp. Prob.* 1 (1989).

<sup>12</sup> Recent regulations on real property have clarified the ways in which land use rights are registered and protected. See Donald C. Clarke and Nicholas C. Howson, "P.R.C. Property and Real Estate Law: Anomalies and Strengths of China's Long-Awaited Revised Land Registration Rules," in 18 *East Asian Executive Reports* 9 (1996).



for dispute resolution. Of particular importance are the courts system and the arbitral system.

### Courts

Commercial litigation in China is generally handled by the People's Courts, which have within them different specialized chambers that handle cases in distinct subject areas, such as criminal law, civil law, economic law, foreign business law, intellectual property law and administrative law. The overall jurisdictional structure is set forth in the Organic Law of the PRC for the People's Courts.<sup>13</sup> The Supreme People's Court, which administers the court system as a whole, also acts as a trial court at the national level and as a court of last appeal. At the provincial and prefecture levels, respectively, the Higher and Intermediate Level People's Courts hear appellate and trial cases. The Basic Level People's Courts hear trial cases at the county level.

The procedural rules for civil litigation in the People's Courts are set forth in the PRC Civil Procedure Law (1991, draft 1982).<sup>14</sup> The People's Courts are also involved in carrying out foreign arbitral awards under the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, to which China acceded effective 1987.<sup>15</sup> There have been many problems with this process in China, however.<sup>16</sup>

### Arbitration

China has a variety of separate arbitration systems. Arbitration of disputes involving Chinese domestic enterprises may be handled by various administrative departments with jurisdiction over the subject matter: for example, labour disputes are handled by the local Labour Administration, while contract disputes are under the authority of the State Administration for Industry and Commerce.<sup>17</sup> Under China's new Arbitration Law (1994), arbitration committees are being established under the local people's governments to handle a wide array of economic disputes.<sup>18</sup> Maritime dis-

<sup>13</sup> See "Organic Law of the People's Courts of the People's Republic of China," in Yu Manking, ed., *A Full Translation of the Criminal Law Code and 3 Other Codes of the PRC* (Hong Kong: Great Earth Book Co., 1980), p. 111.

<sup>14</sup> See "Civil Procedure Law of the People's Republic of China in CCH Australia, Ltd., ed., *China Laws for Foreign Business*, (hereafter, "CCH") para. 19-200.

<sup>15</sup> See Convention on the Recognition and Enforcement of Foreign Arbitral Awards, TIAS 6997, 330 UNTS 3; Supreme People's Court of the PRC, "Notice Concerning the Enforcement of United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards Acceded to by Our Country," (Circular No. 5, April 10, 1987, author's copy); Christian Salbaing, "Dispute Settlement in China," in Streng & Wilcox, *Doing Business in China*, (Irvington-on-Hudson, N.Y.: Transnational Juris, looseleaf), Chapter 21.

<sup>16</sup> The case of Revpower is one of the more prominent cases involving refusal of Chinese courts to recognize or enforce a foreign arbitral award, but by no means the only such incident. See Alberto Mora, "The Revpower Dispute: China's Breach of the New York Convention?," in *China Law & Practice*, (ed.), *Dispute Resolution in the PRC: A Practical Guide to Litigation and Arbitration in China* (Hong Kong, China Law & Practice, 1995) at 151. Also see testimony of Robert A. Aronson, CEO of Ross Engineering before the House Ways and Means Trade Subcommittee May 23, 1995 (Federal Information Systems, 1995). Also see Matthew Bersani, "Enforcement of Arbitration Awards in China," *China Business Review*, May-June, 1992, p. 6. Also see Bersani, "Enforcement of Arbitration Awards in China" in *International Arbitration*, Vol 10, No. 2 (1993), p. 47.

<sup>17</sup> See "Regulations on Arbitration for Economic Contracts of the People's Republic of China," in CCH, para. 10-620.

<sup>18</sup> See "Arbitration Law of the People's Republic of China" (1994), in CCH, para. 10-470(8).

putes are subject to the China Maritime Arbitration Commission.<sup>19</sup> Arbitration and conciliation between Chinese and foreign parties in economic and trade matters are under the jurisdiction of the China International Economic and Trade Arbitration Commission (CIETAC) under the China Council for the Promotion of International Trade (CCPIT) in Beijing and its sub-councils in Shanghai and Shenzhen. The CIETAC Arbitration Rules have been amended several times over the past few years, to accommodate the concerns of foreign parties and to accord with the requirements of the PRC Arbitration Law.<sup>20</sup>

#### FINANCE REFORM: FOREIGN EXCHANGE, TAXATION AND SECURITIES

China's economic reforms have included changes in the financial system—particularly in the areas of foreign exchange, taxation and securities regulation. Reforms in the foreign exchange area have seen the elimination of the dual currency system and movement toward full convertibility of the Chinese Yuan (*renminbi*). Changes in the tax system have included changes in domestic income and turnover taxes and rationalization of the foreign tax system. New approaches to securities markets have also been introduced to add greater fluidity to the finance system.

#### *Foreign Exchange*

Prior to 1980, China's currency was not convertible on the world market. A partially convertible currency was introduced in 1980, resulting in a two currency system. The domestic currency (*renminbi* or RMB) was intended for use exclusively in the local economy, while the convertible currency (*waihuijuan* or foreign exchange certificates) was intended for use in connection with China's foreign economic relations. The system gave the central authorities an administrative mechanism for controlling China's balance of payments.<sup>21</sup> Effective January 1, 1994, the "foreign exchange certificates" were formally abolished,<sup>22</sup> although the RMB was not yet made freely convertible. Administrative procedural restrictions and controls on the identity and number of banks authorized to engage in foreign currency transactions serve to limit full convertibility.<sup>23</sup> An inter-bank market is planned for setting the exchange rate,

<sup>19</sup> See "Arbitration Rules of the China Maritime Arbitration Commission issued by the China Council for the Promotion of International Trade" in CCH, para. 10-545.

<sup>20</sup> See "Arbitration Provisions of the China International Economic and Trade Arbitration Commission," in CCH, para. 10-505. Also See Zhang Yuling, "Towards the UNCITRAL Model Law: A Chinese Perspective," in 11 *J. of Int'l Arb.* 87 (1994).

<sup>21</sup> Under the Provisional Regulations on Foreign Exchange Control all foreign exchange transactions were to be made in accordance with the foreign exchange plan, prepared by the State Administration of Exchange and Control (SAEC), approved by the State Council, and supervised by the Bank of China (BOC) and MOFERT (later MOFTEC). See "Provisional Regulations of the PRC Governing Foreign Exchange Control," in CCH, para. 8-550. The SAEC is an administrative organ under the supervision of the People's Bank of China (PBOC), and is responsible for controlling foreign exchange. See Carsten Holz, *The Role of Central Banking in China's Economic Reforms* (Ithaca: Cornell University Press, 1992), pp. 68 *et seq.* The Bank of China is a specialized bank, supervised and monitored by the PBOC and the State Council, responsible for the management of foreign exchange and the provision of loans and export credits to foreign enterprises and joint ventures. See generally, Che-ning Liu, "From Cashiers to Banks: Banking Reform in the People's Republic of China and the Emergence of Banks as Financial Intermediaries," in 6 *China L. Rep.* 103 (1990).

<sup>22</sup> See "Announcement of the People's Bank of China on Further Reforming the Foreign Exchange Management System" (Dec. 28, 1993), in *China Economic News* Jan. 10, 1994, p. 9.

<sup>23</sup> See "Provisional Regulations on the Management of Settlement, Sales and Payment of Foreign Exchange," in *China Economic News*, Apr. 25, 1994, p. 6 and May 2, 1994, p. 7.

thereby linking China's foreign exchange reforms with changes in the state banking system aimed at increasing institutional diversity and competition.<sup>24</sup> Increased foreign participation in the banking sector is also significant.<sup>25</sup>

### Taxation

Taxation in China is subject to a wealth of laws and regulations. Of particular importance are the Individual Income Tax Law (IITL) and its associated regulations, the various value added tax regulations imposing tax on sales of goods, land and services, and the foreign business taxes.

#### Individual Income Tax

The PRC Individual Income Tax Law (IITL 1980, rev. 1993) and its Implementing Rules were intended initially to impose tax on income received by foreign expatriate personnel living and working in China.<sup>26</sup> However, with the expansion of China's economy and the concomitant increases in living standards, amendments were made to bring Chinese income earners within the ambit of the law. Identification of the taxpayer is based on domicile, and the assessed tax is based on net income from all sources, although the tax rate and the calculation of net income differ depending on the source of the income.<sup>27</sup> Although each individual income earner is responsible for paying the proper amount of tax and registering with taxing authorities, the employer generally acts as the withholding agent and must also report to taxing authorities. Thus, the IITL operates as a mechanism for social control as well as for income generation.

#### Value Added Taxes

Prior to January 1, 1994, China's primary domestic business tax was the Industrial and Commercial Consolidated Tax (ICCT).<sup>28</sup> Ef-

<sup>24</sup> See "Law of the PRC on the People's Bank of China" (1995), in *China Economic News* 1995 Suppl. no. 3 (Apr. 24, 1995); *Law of the PRC on Commercial Banks* (1995), in *China Economic News* 1995 Suppl. no. 6 (June 12, 1995).

<sup>25</sup> See "Procedures of the People's Bank of China for the Establishment of Representative Offices in China by Overseas and Foreign Financial Institutions" (1983) ("PBOC Procedures on Establishment of Foreign Financial Rep Offices"), in CCH, para. 7-540(4); "Administrative Measures of the People's Bank of China on Establishment in China of Resident Representative Offices by Foreign Financial Institutions" (1991), in CCH, para. 7-542.

<sup>26</sup> For a text of the 1980 law and regulations, see "Individual Income Tax Law of the People's Republic of China"; "Rules for the Implementation of the Individual Income Tax Law of the People's Republic of China," both in *China's Foreign Economic Legislation* (Beijing: Foreign Languages Press, 1982, at pp. 75 and 85, respectively). The revised text appears in Individual Income Tax Law of the People's Republic of China in CCH, para. 30-500; Implementing Regulations for the Individual Income Tax Law of the People's Republic of China (1994), in CCH, para. 30-305. For a general discussion of these measures, see generally, Pitman B. Potter, "Taxation of Foreign Individuals" in William P. Streng and Allen Wilcox, *Doing Business in China* (Irvington-on-Hudson: Transnational Juris Publishers, looseleaf). Also see Timothy Gelatt, "China's New Individual Income Tax Law: Implications for Foreign Business," in *East Asian Executive Reports*, November 1993, p. 1.

<sup>27</sup> Article 2 of the IITL provides that individual income tax shall be levied on income derived from wages and salaries, royalties and compensation for personal services (ie accounting, consulting, medical and legal services rendered, etc.); interest, dividends, and bonuses, rental income; and other income specified by the Ministry of Finance. The definitions of these kinds of income are set forth in the IITL Implementing Regulations.

<sup>28</sup> See Regulations on Industrial and Commercial Consolidated Tax (1958) ("*Zhonghua renmin gongheguo gong shang tong yi shui tiaoli*"), in State Taxation Bureau, *Zhongguo she wai shuishou fagui ji* (Volume of PRC laws and regulations on foreign taxation) (Beijing: Finance and Tax Publishers, 1989), p. 217; Detailed Rules for the Implementation of the Regulations on Industrial and Commercial Consolidated Tax (1958) ("*Zhonghua renmin gongheguo gong shang*

fective January 1, 1994, the ICCT was abolished, replaced by a series of new taxes including a Value Added Tax, Consumption Tax, and Business Tax.<sup>29</sup> The Value Added Tax applies to virtually all transactions in goods and services, although exports are not subject to the VAT.<sup>30</sup> The Consumption Tax applies to the production, processing or importation of consumer goods,<sup>31</sup> while the Business Tax applies to the provision of labor services, and the transfer of tangible or intangible assets.<sup>32</sup> In replacing the ICCT, the new regime of transfer taxes makes clear distinctions between goods and services, and between transfers where value is added and where it is not. A Land Value Added Tax was also enacted to cover gains in real estate transactions.<sup>33</sup>

### *Tax Enforcement*

Tax enforcement issues are generally governed by the "Law of the PRC to Administer the Levying and Collection of Taxes" and its Implementing Regulations.<sup>34</sup> These measures replace earlier regulations on tax administration,<sup>35</sup> and afford Chinese tax authorities broad discretionary authority to conduct investigations regarding tax compliance and impose sanctions in events of non-compliance with the tax laws and regulations.<sup>36</sup> As a result, tax enforcement tends to involve protracted negotiations over the amount and sourcing of income and the details of payment and enforcement.

### *Securities Regulation*

After an extended period of debate, a system of securities laws and regulations was enacted that extended the economic reforms to the finance sector. While the effort remains incomplete (as indicated by the failure as of early 1996 to enact a Securities Law despite extended drafting and debate<sup>37</sup>) much has been accom-

tong yi shui tiaoli shixing xize"), in State Taxation Bureau, *Zhongguo she wai shuishou fagui ji* (Volume of PRC laws and regulations on foreign taxation) (Beijing: Finance and Tax Publishers, 1989), p. 228. Also see Alex Easson and Li Jinyan, "The Evolution of the Tax System in the People's Republic of China," in 23 *Stanford J. Int'l L.* 399 (1987).

<sup>29</sup> See "Decision on the Use of Interim Regulations Concerning Value-Added Taxes, Consumption Taxes and Business Taxes on FFEs and Foreign Enterprises" (1993), in *China Economic News*, Jan. 31, 1994, p. 7.

<sup>30</sup> See "Provisional Regulations of the PRC on Value-Added Tax," in *China Economic News* Jan. 3, 1994, p. 9. Also see VAT Implementing Rules in "Special Supplement on Taxation," in *China Economic News*, Supp. No. 1, Jan. 31, 1994, p. 2.

<sup>31</sup> See "Provisional Regulations of the PRC on Consumption Taxes," in *China Economic News* Jan. 17, 1994, p. 7. Also see Consumption Tax Implementing Regulations in "Special Supplement on Taxation," in *China Economic News*, Supp. No. 1, Jan. 31, 1994, p. 6.

<sup>32</sup> See "Provisional Regulations of the PRC on Business Taxes," in *China Economic News* Jan. 17, 1994, p. 10. Also see Business Tax Implementing Regulations in "Special Supplement on Taxation," in *China Economic News*, Supp. No. 1, Jan. 31, 1994, p. 9.

<sup>33</sup> See "Provisional Regulations of the PRC on Land Value-Added Taxes," in *China Economic News* Jan. 17, 1994, p. 7.

<sup>34</sup> See "Law of the PRC to Administer the Levying and Collection of Taxes" (1992) (hereafter, "Tax Administration Law"), in CCH, para. 30-545; "Detailed Rules for the Implementation of the Law of the People's Republic of China to Administer the Levying and Collection of Taxes" (1993) (hereafter, "Tax Administration Implementing Regulations"), in CCH, para. 30-355.

<sup>35</sup> See "Provisional Regulations of the PRC Concerning the Administration of Tax Revenues and Tax Enforcement" (State Council Econ. Laws and Regs. Res. Center and Secretariat of the Soc'y for Res. in Chinese Econ. Law), *Zuixin jingji fagui* (Latest economic legislation) (Machinery Industry Publishers 1987), pp. 116-124. A translation of these regulations appears in *The China Investment Guide*, 19.01 N.3, *supra*, at 553-558.

<sup>36</sup> See Tax Administration Law, Arts. 32, *et seq.*; Tax Administration Implementing Rules, Chapter VI.

<sup>37</sup> See "Analyst Say NPC Plans Securities Laws," *South China Morning Post*, Aug. 6, 1993, p. 9, in *FBIS Daily Report-China*, Aug. 6, 1993, p. 33; "Economist Li Yining Says Securities Law Scheduled," Beijing Xinhua English Service, Mar. 11, 1994, in *FBIS Daily Report-China*, Mar.

plished—most notably the establishment of a national regulatory system<sup>38</sup> and the enactment of the 1993 Company Law of the PRC.<sup>39</sup>

The national regulatory effort began in earnest with a series of eight separate regulations issued between June and August 1992,<sup>40</sup> of which the most important was the "Regulations on Enterprises' Shareholding System Experiment," issued jointly by the State Commission on Restructuring the Economy, the State Planning Commission, the Ministry of Finance, the People's Bank of China, and the State Council Production Office.<sup>41</sup> The "Shareholder System Regulations" governed the use of shares as the basis for enterprise ownership, and complemented other measures addressing issues of financial management,<sup>42</sup> taxation,<sup>43</sup> commercial transactions,<sup>44</sup> and the formation and supervision of joint stock companies.<sup>45</sup>

In January and in April 1993, the State Council issued provisional regulations on the issue and trading of stock, which addressed such matters as stock issues and trading; takeovers; custody, clearance, and registration of shares; information disclosure; inspection and penalties; and dispute resolution.<sup>46</sup> The regulations charged the State Council Securities Policy Committee (SCSPC) with overall administration of the national stock market, while the China Securities Regulatory Commission (CSRC) was to be SCSPC's executive agency responsible for supervision and regula-

11, 1994; "Ideological Debates Block Passage of Securities Law," *Eastern Express* (HK), Mar. 8, 1994, in *FBIS Daily Report*, Mar. 9, 1994; Mei Shengshi, "Wo guo zhengzhuan li fa de que he luan ji qz zhi" (The deficiencies and disorder in our securities legislation and their resolution," in *Zhongguo zhengjuan bao* (China securities reporter) Jan. 25, 1994, p. 7.

<sup>38</sup> Much of this discussion is drawn from the author's "Securities Regulation: A National System Begins to Emerge" and "P.R.C. State Council Issues National Stock Regulations," in *East Asian Executive Reports*, May 15, 1993 p. 9 and July 15, 1993 p. 9, respectively.

<sup>39</sup> See Company Law of the PRC, in *China Economic News*, Supplement No. 2, March 7, 1994.

<sup>40</sup> These included (i) Regulations on Enterprises' Shareholding System Experiment (May 15, 1992); (ii) "Temporary Provisions on Several Issues Concerning Financial Management in Experimental Shareholding Enterprises" (June 27, 1992); (iii) "Temporary Provisions on Issues Concerning Tax Revenue of Experimental Shareholding Enterprises" (June 12, 1992); (iv) "Interim Procedures Governing the Supply and Marketing of Goods and Materials by Experimental Shareholding Enterprises" (June 30, 1992); (v) "Provisional Regulations on the Macroeconomic Control of Experimental Joint-Stock Enterprises" (July 6, 1992); (vi) "Interim Regulations Governing Labor and Wages in Enterprises Experimenting With Share-Holding Systems" (June 1, 1992); (vii) "Provisional Regulations on Auditing at Experimental Shareholding Enterprises" (July 19, 1992); and (viii) "Interim Provisions on Administering Land Assets of Experimental Shareholding Enterprises" (July 9, 1992).

<sup>41</sup> See "State Regulations on Shareholding Experiment," in *FBIS Daily Report—China*, June 22, 1992, p. 31.

<sup>42</sup> See "Temporary Provisions on Several Issues Concerning Financial Management in Experimental Shareholding Enterprises" in "Provisions on Financial Management of Stock Firms," *FBIS Daily Report—China*, July 6, 1992, p. 52. Also see "Provisional Regulations on Auditing at Experimental Shareholding Enterprises," in "Regulations on Shareholding Enterprise Auditing," *FBIC Daily Report—China*, July 22, 1992, p. 37.

<sup>43</sup> See "Temporary Provisions on Issues Concerning Tax Revenue of Experimental Shareholding Enterprises," in "Rules on Taxing Experimental Shareholding Firms," *FBIS Daily Report—China*, July 6, 1992, p. 57.

<sup>44</sup> See "Interim Procedures Governing the Supply and Marketing of Goods and Materials by Experimental Shareholding Enterprises" in "Rules on Marketing by Pilot Shareholding Firms," *FBIS Daily Report—China*, July 6, 1992, p. 58.

<sup>45</sup> See "Provisional Regulations on the Macroeconomic Control of Experimental Joint-Stock Enterprises" in "Regulations on Forming Joint-Stock Enterprises," *FBIS Daily Report—China*, July 14, 1992, p. 37.

<sup>46</sup> See "Interim Provisions on the Management of the Issuing and Trading of Stocks," in *China Economic News*, June 7, 1993, p. 7 and June 14, 1993, p. 7. Also see *South China Morning Post*, June 8, 1993, p. B 4. These measures were foreshadowed by the State Council's January 1993 Circular on Further Strengthening Macro-Control of Securities Markets. "State Council Circular on Securities Markets," *FBIS Daily Report—China*, Jan. 25, 1993, p. 24

tion.<sup>47</sup> The CSRC subsequently established a special Commission for examining and approving share issues.<sup>48</sup> These national rules complemented local measures already enacted to govern securities exchanges in Shanghai and Shenzhen,<sup>49</sup> while also paving the way for listing Chinese domestic stocks on foreign markets such as Hong Kong and New York.<sup>50</sup> The PRC Company Law grew out of the national-level regulations enacted in 1992–1993.<sup>51</sup> The law formalizes the rules and procedures for company operations, but also refines the regulatory system for company shares.<sup>52</sup> Based on a draft that had been submitted the previous March after undergoing years of refinement and debate,<sup>53</sup> and on various “opinions” on stock companies and limited liability companies,<sup>54</sup> the Company Law went into effect July 1, 1994, and addresses the establishment and organization of companies, bond issues, accounting matters, mergers, bankruptcy and liquidation, responsibilities of branches of foreign companies, and other matters.

#### ADMINISTRATIVE REFORM

The enactment of the Administrative Litigation Law of the PRC (“ALL”) signalled an effort to make administrative agencies more accountable through provisions for limited judicial review.<sup>55</sup> Under the ALL, individuals and enterprises may challenge in court the legality of decisions by Chinese administrative organs. While only the administrative organizations themselves may be defendants under the ALL,<sup>56</sup> a cause of action may arise as a result of an individual official’s act.<sup>57</sup> The ALL permits judicial review of a variety of regulatory decisions, including the imposition of fines; restric-

<sup>47</sup> Under the January Circular, the chief organ was labelled the Securities Committee of the State Council (SCOSC), while the executive organ was the China Securities Supervision and Control Committee (CSSACC). See Pitman B. Potter “China’s Regulation of Securities: A National System Begins to Emerge,” *East Asian Executive Reports* Vol. 15 No. 5, May 15, 1993, p. 9.

<sup>48</sup> See “Overseer for share issues established,” in *South China Morning Post*, June 25, 1993, p. B 1.

<sup>49</sup> See generally, Pitman B. Potter, “Recent Developments in Securities Market Regulation in China: Balancing State Regulation with Investor Confidence,” in *China Law Reporter* (1992).

<sup>50</sup> Following enactment of the State Council measures, the Hong Kong Stock Exchange’s Listing Rules were amended to permit Chinese domestic firms to list on the Hong Kong Stock Exchange. See “New rules governing mainland listings in HK,” *South China Morning Post*, June 20, 1993, p. Money 9. The Qingdao Brewery became the first Chinese entity to list on the Hong Kong stock market. For discussion of the volatile H Share Market in Hong Kong, see David Whittall, “Heavy Hitting H Shares,” in *The China Business Review*, May–June, 1994, p. 44.

<sup>51</sup> See generally, Pitman B. Potter, “China Securities Regulation: A National System Begins to Emerge,” in *East Asian Executive Reports*, May 15, 1993, p. 9.

<sup>52</sup> See “Company Law of the People’s Republic of China” (hereafter, “PRC Company Law”), in *China Economic News*, Supplement No. 2, March 7, 1994. A number of preliminary analyses have emerged addressing this legislation, including Preston Torbert, “Broadening the Scope of Investment,” in *The China Business Review*, May–June 1994, p. 48 and David Ho, “China’s New Company Law: Something Concrete to Go By,” in *East Asian Executive Reports*, Feb. 1994, p. 9.

<sup>53</sup> See “Draft Corporate Law Submitted,” *FBIS Daily Report—China*, Feb. 16, 1993, p. 29; and “Speech by Qiao Shi at Closing of NPC,” *FBIS Daily Report—China*, Apr. 1, 1993, p. 22. One source from which many of the Company Law’s provision were drawn is the Provisional Regulations of Shenzhen Municipality on Companies Limited by Shares (Mar. 17, 1992), reprinted in *China Law & Practice*, May 7, 1992, at p. 12.

<sup>54</sup> See e.g. “Gufen you xian gongsi guifan yijian” (Opinion on standards for limited liability stock companies), in *Renmin ribao* (People’s Daily) June 19, 1992.

<sup>55</sup> An English language text of the ALL appears in Pitman B. Potter, “The Administrative Litigation Law of the PRC” in *China Law and Government*, Fall, 1991. Also see Pitman B. Potter, “Judicial Review and Bureaucratic Reform: The Administrative Litigation Law of the PRC,” in Potter, ed., *Domestic Law Reforms in Post-Mao China* (Armonk, N.Y., and London: M.E. Sharpe, 1994), p. 270.

<sup>56</sup> ALL, Article 25.

<sup>57</sup> ALL, Article 2.

tions on property rights; interference in business operations; and denial of business licenses.<sup>58</sup> In addition, the ALL permits challenges against administrative agencies to be filed as a result of individual officials abusing their official powers to elicit graft from business enterprises.

However, the ALL does not permit review of discretionary decisions lawfully conferred on administrative agencies. In light of the textual ambiguities of Chinese laws and regulations, discretionary decisions are widespread and abuses of discretion are common. Nonetheless, these are outside the scope of ALL review. In addition, ALL review does not extend to the lawfulness of administrative regulations themselves: administrative agencies can in effect legislate their own immunities from ALL review.<sup>59</sup> Finally, applicants seeking judicial review must first exhaust administrative remedies within the department being challenged, and under the Regulations of the PRC on Administrative Reconsideration administrative agencies have virtually unlimited power to dictate the governing procedures and to limit the availability of appeal to the courts.<sup>60</sup>

#### FOREIGN ECONOMIC RELATIONS: TRADE AND INVESTMENT<sup>61</sup>

Reforms in China's foreign economic relations extend to virtually all aspects of the Chinese legal system. Many of the relevant issues have been touched upon in the preceding discussion. What follows is a brief survey of reforms in the foreign trade and investment sectors.

#### *Trade*

During the early years of reform, Chinese foreign trade relations were governed by a variety of disparate and often unconnected laws and regulations governing such matters as trade licensing, commodity inspection, and the administration of tariffs. The formation in 1982 of the Ministry of Foreign Economic Relations and Trade ("MOFERT") out of the former Ministries of Foreign Trade and Foreign Economic Relations and the State Commissions on Foreign Investment and Imports & Exports heralded a major effort to unify the foreign trade structure under a single ministry in charge. Among MOFERT's internal departments were the import and export administrations, which oversaw such matters as licensing and the approval of trade contracts. The recent re-naming of the MOFERT as the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) had little to do with foreign trade issues but rather reflected increased attention paid to attracting foreign investment.

<sup>58</sup> See ALL, Article 11. Also see Pitman B. Potter, "China's Administrative Litigation Law May Offer Some Protection Against Abuse of Power," *East Asian Executive Reports*, Nov. 15, 1990, p.9.

<sup>59</sup> This generally occurs as a result of requirements that applicants exhaust the process of administrative reconsideration (*fuyi*) before filing for judicial review. See generally, Pitman B. Potter, "The Administrative Litigation Law of the PRC," *Chinese Law and Government*, Fall, 1991.

<sup>60</sup> See "Xingzheng fuyi tiaoli," (Regulations on administrative reconsideration) in *Fazhi ribao* (Legal system daily), Dec. 28, 1990, p. 2.

<sup>61</sup> Much of the following discussion is drawn from the author's *Foreign Business Law in the People's Republic of China: Past Accomplishments, Future Challenges* (San Francisco: The 1990 Institute, 1995).

Throughout the 1980s, China's foreign trade was in the main conducted by national foreign trade corporations (NFTCs) organised under MOFERT or under its provincial or local commissions and bureaux.<sup>62</sup> These NFTCs had a near monopoly on the conduct of foreign trade. Under this system, the local branches of the NFTCs were subject to supervision both by local government authorities and by the head office in Beijing. In 1988, China worked to decentralize its state trading corporations by establishing the former provincial branches of the NFTCs as separate subsidiaries. Initially at least, the relationship between the former branches and their former central offices remained close, and fell far short of the arms-length relationship normally expected between subsidiary and parent.<sup>63</sup> Gradually, in response primarily to domestic political pressures, other companies were granted the authority to conduct foreign trade, and the monopoly enjoyed by the MOFERT NFTCs was eroded significantly. An agency trading system has begun to emerge by which the NFTCs act in exchange for service fees, and the Chinese producer or consumer bears the commercial risk of the transaction.<sup>64</sup>

In May 1994, the PRC enacted a comprehensive Trade Law.<sup>65</sup> The act was aimed in part to meet concerns of China's trading partners over issues of regulatory transparency and market access,<sup>66</sup> and to pave the way for China's entry into the GATT and the International Trade Organization, although the law's actual effects cannot be ascertained fully as yet. While the PRC Trade Law clarified the decentralization in China's foreign trade companies, it also affirms China's right to restrict imports and exports in pursuit of national policy goals. As well, the legislation formally authorizes retaliatory measures in response to what China considers protectionist treatment by its trading partners.

### *Foreign Investment*

The Chinese legal regime for foreign investment has evolved significantly since its inception following the Third Plenum of the 11th Central Committee of the Chinese Communist Party in 1978.<sup>67</sup> The first foreign investment laws governing equity joint

<sup>62</sup> See generally, Jamie Horsley, "The Regulation of China's Foreign Trade," in Michael J. Moser, ed., *Foreign Trade, Investment and the Law in the People's Republic of China*, 2d ed., (Hong Kong: Oxford University Press, 1987).

<sup>63</sup> See e.g. the listing of "branches" of the China National Native Produce and Animal By-Products Import and Export Corporation, in Sun Yuzong, ed., *Dui wai jingji maoyi gongzuo shouce* (Handbook on Foreign Economic and Trade Work) (Beijing: Economic and Trade Publishers, 1988), pp. 835-849. Also see Qiu Demin, *Zhongguo wai mao tizhi gaige gailun* (General Theory on the Reform of China's Foreign Trade System) (Xian: Shaanxi People's Press, 1988), pp. 100 et seq.; *Dui wai maoyi qiye guanli* (Management of Foreign Trade) (Beijing: Foreign Trade Education Publishers, 1988), pp. 67-68.

<sup>64</sup> See Hong Kong Trade Development Council, *China's Foreign Trade System*, (1991).

<sup>65</sup> See "Foreign Trade Law of the PRC," in *China Economic News*, May 23, 1994, p. 8 and May 30, 1994, p. 7.

<sup>66</sup> Many of these concerns were evident in the text of the "People's Republic of China-United States Memorandum of Understanding Concerning Market Access," in 31 *I.L.M.* 1274 (1992).

<sup>67</sup> While the Official Communiqué made scant reference to the "open door policy" directly, the Plenum has come to be seen as the watershed event giving rise to the introduction of foreign investment in China. See "Zhongguo gongchandang di shi yi jie zhongyang weiyuanhui di san ci quanti huiyi gongbao" (Communiqué of the Third Plenum of the Eleventh CCP Central Committee), in *Hongqi* (Red Flag), 1979, No. 1, pp. 14-21; Peng Zhen, "Explanation on the seven draft laws made at the second session of the fifth NPC on 26th June, 1979," *NCNA*, in *Selections From World Broadcasts*, July 4, 1979, at p. FE/6158/C/1; Liu Xiangdong, ed., *Liyong wai zi zhishi shouce* (Handbook of knowledge on the use of foreign capital) (Beijing: World Knowledge—shijie zhishi—Publishing, 1989, pp. 2-3; Yu Hansheng, ed., *Dui wai jing mao yu falu*



ventures were little more than broad statements of principle.<sup>68</sup> Implementing regulations were gradually added to provide much needed albeit still incomplete additional detail.<sup>69</sup> The government came to approve a broader variety of foreign investment enterprises—including contractual joint ventures (also known as cooperative enterprises) and wholly foreign owned enterprises,<sup>70</sup> although foreign representative offices continue to be excluded from this category.<sup>71</sup>

Initially, the Chinese foreign taxation system treated equity joint ventures differently than cooperative enterprises, wholly foreign owned enterprises and foreign representative offices.<sup>72</sup> This disparity was removed, however, with the 1991 Income Tax Law for Enterprises With Foreign Investment and Foreign Enterprises ("Unified Foreign Enterprise Tax Law" or UFETL).<sup>73</sup> The UFETL placed equity joint ventures, cooperative enterprises, and wholly foreign owned enterprises together under the rubric of "foreign investment enterprises," while leaving other foreign business activities such as representative offices under the category of "foreign enterprises."<sup>74</sup> The UFETL incorporated many of the preferential tax provisions applicable under previous laws and regulations, but applied them more fairly as between different types of foreign investment enterprises. Foreign businesses registered in China are also subject to VAT, as well as other taxes on vehicles, office space and other goods and activities.

China has concluded bilateral tax treaties with many of its trading partners, to establish tax jurisdiction over foreign individuals and companies operating in China and to promote cooperation in tax enforcement.<sup>75</sup> These treaties generally follow either the OECD Model Double Taxation Convention or the United Nations Model

*shoyong shouce* (Practical handbook on finance and law related to foreign matters) (Beijing: Law Publishing, 1992), pp. 5-7.

<sup>68</sup> See "Law of the PRC on Joint Ventures Using Chinese and Foreign Investment" (1979, as amended 1990) ("Joint Venture Law"), in CCH, para. 6-500.

<sup>69</sup> See "Implementing Regulations for the Law of the PRC on Joint Ventures Using Chinese and Foreign Investment" (1983, as amended 1986) ("Joint Venture Implementing Regulations"), in CCH, para. 6-550.

<sup>70</sup> See "Law of the PRC on Sino-Foreign Cooperative Enterprises" (1988) ("Cooperative Enterprise Law"), in CCH, para. 6-100, "Implementing Regulations for the Law of the PRC on Sino-Foreign Cooperative Enterprises" (1995), "Law of the PRC on Wholly Foreign-Owned Enterprises" (1986) ("WFOE Law"), in CCH, para. 13-506; and "Implementing Rules for China's Law on Wholly Foreign Owned Enterprises" (1990) ("WFOE Implementing Regulations"), in *East Asian Executive Reports*, Feb. 1991, p. 25. Also see generally Liu Chu and Clark T. Randt, Jr., "Foreign Investment Vehicles," in William P. Streng and Allen D. Wilcox, eds., *Doing Business in China* (Irvington-on-Hudson: Transnational Juris Publishers, 1993), pp. 6-1-6-33.

<sup>71</sup> See "Interim Regulations Concerning the Control of Resident Offices of Foreign Enterprises" (1980), in CCH, para. 7-500(4). Also see Price Waterhouse, *Doing Business in the People's Republic of China* (1988), pp. 20, 48.

<sup>72</sup> See generally, Timothy A. Gelatt and Richard D. Pomp, "Tax Aspects of Doing Business with the People's Republic of China," in 22 *Columbia J. of Transnational L.* 421 (1984).

<sup>73</sup> See Income Tax Law of the People's Republic of China for Enterprises With Foreign Investment and Foreign Enterprises (1991), CCH, para. 32-505.

<sup>74</sup> A working definition of foreign investment enterprises, which distinguished them from other foreign business forms, emerged belatedly and was formalized only in 1986 with the State Council Measures for Encouraging Foreign Investment. See Pitman B. Potter, "Seeking Special Status," in *The China Business Review*, March-April 1989, pp. 36-39. The term "foreign investment enterprises" means equity and contractual joint ventures and wholly foreign owned enterprises. The term "foreign enterprises" means foreign companies, enterprises and other economic organizations either having establishments or sites in China engaged in production or business operations, or having no establishments or sites, but deriving income from sources in China. Foreign representative offices fall within the definition of foreign enterprises.

<sup>75</sup> See generally, William P. Streng, "China's Income Tax Agreements," in William P. Streng and Allen D. Wilcox, eds., *Doing Business in China* (Irvington-on-Hudson: Transnational Juris, looseleaf).

Convention, although the U.S.-PRC Tax Treaty is heavily influenced by the U.S. Treasury Department model as well.<sup>76</sup>

In ongoing attempts to attract more foreign investment, the government enacted various inducement measures—first emphasizing location as the basis for preferences<sup>77</sup> and later adding substantive operating criteria as conditions for receipt of investment incentives.<sup>78</sup> Most recently, efforts have been made to remove disparities in the legal treatment of foreign and Chinese businesses. The tax system is undergoing reform to harmonize the treatment of foreigners and Chinese<sup>79</sup> business operations.<sup>80</sup> China's foreign exchange system has been reformed and the dual currency system eliminated.<sup>81</sup> Efforts are under way to unify the corporate legal status of Chinese and foreign businesses.<sup>82</sup>

Thus, over the past fifteen years, the regulation of economic activity in China has developed significantly. New laws and regulations have been enacted at a withering pace, governing such essential economic relationships as contracts, property, dispute resolution, finance, administration and foreign business. On the other hand, there is little evidence to suggest that China's impressive rates of economic growth are the result of these regulatory efforts. While organizations have been established to implement newly emerging legal and regulatory regimes, a major source of concern about the ultimate effect of China's legal reforms concerns enforcement.

<sup>76</sup> Agreement Between the United States of America and People's Republic of China for the Avoidance of Double Taxation and Prevention of Tax Evasion with Respect to Income Taxes became effective on January 1, 1987 (hereafter, "U.S.-PRC Tax Treaty"). CCH Tax Treaties #1421. Also see generally, William P. Streng, "China's Income Tax Agreements, in Streng & Wilcox, *Doing Business in China*, supra, Chapter 18.

<sup>77</sup> See "Quan guo renmin daibiao dahui chang wu weiyuan hui guanyu shouquan Guangdong sheng, Fujian sheng renmin daibiao hui ji qita chang wu weiyuanhui zhiding suo shu jingji tequ de ge xiang sarah jingji fagui de jueyi" (Decision of the Standing Committee of the National People's Congress authorizing the people's congresses of Guangdong and Fujian provinces and their standing committees to enact various specific laws and regulations for the special economic zones under their jurisdiction) (1981); "Guangdong sheng jingji tequ tiaoli" (Regulations of Guangdong Province for special economic zones) (1985), both in *Zhongguo jingji tequ kaifa qu falu fagui xuanbian* (Selection of laws and regulations for China's special economic zones and development zones) (Beijing: Zhanlan publishing, 1987, p. 1 and p. 2. Also see generally, Victor C. Falkenheim, "China's Special Economic Zones," in Joint Economic Committee of U.S. Congress, *China's Economy Looks to the Year 2000* (Washington, D.C.: U.S. Gov't Printing Office, 1986), pp. 348-370.

<sup>78</sup> Under the "Provisions of the State Council of the People's Republic of China for the Encouragement of Foreign Investment" (1986) (in *The China Business Review*, Jan.-Feb. 1987, pp. 14-15), special preferences were given to enterprises denoted as "export oriented enterprises" and "advanced technology enterprises".

<sup>79</sup> China's Individual Income Tax has recently been amended to bring within its scope Chinese taxpayers who had been effectively excluded previously. See "Individual Income Tax Law of the PRC" (1980, as amended 1993) in CCH, para. 30-500(4); "Detailed Rules for the Implementation of the Individual Income Tax Law of the PRC" (1980) in CCH, para. 300-520(4); also Pitman B. Potter, "Taxation of Foreign Individuals" in William P. Streng and Allen D. Wilcox, *Doing Business in China* (Irvington-on-Hudson, N.Y.: Transnational Juris, looseleaf), Chapter 19.

<sup>80</sup> While the Unified Foreign Enterprise Tax Law continues to tax the income foreign businesses in China differently from Chinese business incomes, other taxes have recently been enacted which strive to tax foreign and Chinese businesses alike on turnover proceeds. See "Decision on the Use of Interim Regulations Concerning Value-Added Taxes, Consumption Taxes and Business Taxes on FFEs and Foreign Enterprises" (1993), in *China Economic News*, Jan. 31, 1994, p. 7. One recent report suggests that foreign investment incentives themselves will be abolished in favor of an incentive system applicable to Chinese and foreign investors alike. See "Foreigners may lose investment privileges," in *Hong Kong Standard*, June 6, 1994.

<sup>81</sup> See "Announcement of the People's Bank of China on Further Reforming the Foreign Exchange Management System" (Dec. 28, 1993), in *China Economic News* Jan. 10, 1994, p. 9.

<sup>82</sup> See "Company Law of the PRC" (1993), in *China Economic News*, Supplement No. 2, March 7, 1994.

## OBSTACLES TO ENFORCEMENT AND IMPLEMENTATION

The Chinese legal reform effort has resulted in a plethora of laws and regulations governing virtually all aspects of economic life. The legal reforms have been pursued explicitly to complement the economic reforms. However, the success of legal reform and its capacity to support continued reforms in the economy is dependent to a large extent on the capacity of relevant laws and regulations to direct behavior. Problems of approach and implementation of law pose serious obstacles in this regard.

## PROBLEMS OF APPROACH: INSTRUMENTALISM AND FORMALISM IN THE ROLE OF LAW

While the success of the legal reform effort will depend in part on China's complex environment for policy-making and enforcement—which at once reveals the diverse effects of bureaucratic processes,<sup>83</sup> personalities and clientilism,<sup>84</sup> and bargaining dynamics<sup>85</sup>—enforcement of legal norms in China is dependent to a large degree on basic approaches to the role of law. Concepts about law's function and effect tend to be dominated by instrumentalism and formalism, such that law is conceived of as an instrument of rule, while the effectiveness of this instrument is subject to formalistic assessments that emphasize content over performance.

The Chinese government's approach to law is fundamentally instrumentalist: laws and regulations are intended to be instruments of policy enforcement.<sup>86</sup> Legislative and regulatory enactments are not intended as expressions of general norms that apply consistently in a variety of human endeavors, and neither are they constrained by such norms. Rather, laws and regulations are enacted explicitly to achieve immediate policy objectives of the regime. Law is not a limit on state power, rather it is a mechanism by which state power is exercised. Even in the economic realm, law is intended to be public and punitive, rather than aimed at empowering private persons to pursue compensatory remedies.

This approach to the role of law derives from a long tradition in Chinese history where law has been aimed primarily to achieve social control but also in pursuit of economic goals.<sup>87</sup> This approach has been incorporated in ideologies of rule through recent Chinese history, whether derived from the Confucianism of imperial China, the Republicanism of China under the Kuomintang, or the Marxism-Leninism of China after 1949, that have emphasized law as an instrument of rule. Throughout the 1950s in the PRC, law and regulation was used to transform the economy and society to achieve

<sup>83</sup> See e.g., Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China: Leaders, Structures, and Processes* (Princeton: Princeton University Press, 1988).

<sup>84</sup> See e.g., Lucian Pye, *The Mandarin and the Cadre* (Ann Arbor, University of Michigan Press, 1988).

<sup>85</sup> See e.g., Susan L. Shirk, *The Political Logic of Economic Reform in China* (Berkeley, Los Angeles and Oxford: University of California Press, 1993).

<sup>86</sup> See e.g., Stanley B. Lubman, "Studying Contemporary Chinese Law: Limits, Possibilities and Strategy," in 34 *Am. J. Comp. L.* 293 (1991); and Yu Xingzhong "Legal Pragmatism in the People's Republic of China," in 3 *J. Chinese Law* 29 (1989). Also see generally, Ronald C Keith, *China's Struggle for the Rule of Law* (New York: St. Martin's Press, 1994), pp. 218–221.

<sup>87</sup> See Derk Bodde and Clarence Morris, *Law in Imperial China* (Philadelphia: University of Pennsylvania Press, 1967); Michael Dutton, *Policing and Punishment in China: From Patriarchy to "The People"* (Hong Kong: Oxford University Press, 1992).

the revolutionary goals of the Maoist regime.<sup>88</sup> The instrumentalism of the Maoist regime was amply illustrated when, in the late 1950s, just at the time law began to be taken seriously not simply as an instrument of rule but as a source of norms and principles of general applicability that might give rise to rights and protections for the populace, it was subjected to criticism during the "Anti-Rightist Campaign" for obstructing the policy goals of the party and state.<sup>89</sup>

In the post-Mao era as well, efforts at legal reform have been couched mainly in the language of instrumentalism—in part so as to enlist the support of conservative members of the regime who question the benefits of a legal system that intrudes on the Party's monopoly on power.<sup>90</sup> And, while many law reformers in China have urged support for more universalist "rule of law" norms,<sup>91</sup> notions about the public and punitive role of law are only slowly giving way to ideas about compensatory remedies and private empowerment.

One consequence of this is that laws and regulations are intentionally ambiguous so as to provide policy makers and implementing officials alike significant flexibility in interpretation and implementation.<sup>92</sup> Many of China's laws and regulations are replete with vague passages that do not lend predictability or transparency to the regulatory process. While this does free the hands of central policy makers to modify the policy foundations for these measures and permits local implementing officials to use broad discretion in ensuring that regulatory enforcement satisfies policy objectives, it also makes uniform interpretation and enforcement difficult if not impossible to obtain.

Complementing the instrumentalist bent in attitudes about the role of law in contemporary China is the tendency toward formalism in assessing the effects of law. The content of law is assumed to represent reality, with little if any inquiry permitted into gaps between the content and operation of law.<sup>93</sup> Law is not only seen as a tool by which desired social, economic, and political goals can be attained, but also is presumed to be an *effective* tool. Where a policy is agreed upon and then expressed through law or regula-

<sup>88</sup> See generally, Stanley B. Lubman, "Methodological Problems in Studying Chinese Communist 'Civil' Law," in Jerome A. Cohen, ed., *Contemporary Chinese Law: Research Problems and Perspectives* (Cambridge, MA: Harvard University Press, 1970).

<sup>89</sup> See e.g., Victor H. Li, "The Evolution and Development of the Chinese Legal System," in John Lindbeck, *CHINA: Management of a Revolutionary Society* (Seattle and London: University of Washington Press, 1970), esp. pp. 240-241.

<sup>90</sup> For example, see Peng Zhen, "Guanyu qi ge falu caian de shuoming" (Explanation of seven draft laws), in Peng Zhen, *Lun xin shiqi de shehuizhu minzhu yu fazhi jianshe* (On the establishment of socialist democracy and legal system in the new period) (Beijing: Central Digest Publishers, 1989), p. 1.

<sup>91</sup> See generally, Ronald Keith, *China's Search for the Rule of Law* (New York: St. Martin's Press, 1995).

<sup>92</sup> In theory, the flexibility and discretion conferred on Chinese decisionmakers is controlled through ideological training in much the same way that the discretion of Imperial Chinese officials was controlled through Confucian training. See generally, Joseph Levenson, *Confucian China and Its Modern Fate* (Berkeley: University of California Press, 1958.)

<sup>93</sup> See generally, James V. Feinerman, "Economic and Legal Reform in China, 1978-91," *supra*; and Stanley B. Lubman, "Emerging Functions of Formal Legal Institutions in China's Modernization," in Joint Economic Committee of U.S. Congress, ed., *China Under the Four Modernizations* (Washington, D.C.: U.S. Government Printing Office), p. 235. Cf. Pitman B. Potter, "Riding the Tiger: Legitimacy and Legal Reform in Post-Mao China," in *The China Quarterly*, June 1994.

tion, the law or regulation serves as a conclusive indicator that the policy is being enforced.<sup>94</sup>

To a large extent this formalism in assessments of implementation is a predictable consequence of the instrumentalism that drives enactment. While consensus is difficult enough to achieve concerning the legislative and regulatory enactments that are expressions of policy ideals, it is nearly impossible to achieve in the area of implementational details due to the numerous political trade-offs that accompany policy enforcement.<sup>95</sup> As a result, policies and the laws and regulations that express them are replete with thinly veiled compromises that represent programmatic ideals rather than implementational details. Where elaborate inquiry into implementation is likely to raise issues that may threaten the political consensus or even the policy ideals, such inquiry is not pursued. Rather, the content of law is seen as coterminous with its operational effects. Much like the political ritual of *biaotai* (to express an attitude) by which officials indicate their allegiance to certain political and policy arrangements without the need for behavioral details, the formalism of assessments of the effect of law and regulation bears many attributes of juristic ritual: In China's contentious policy environment, the ideal and its implementation become one.

#### PROBLEMS OF IMPLEMENTATION: POLICY INDETERMINACY AND REGULATORY INCONSISTENCY IN THE MANAGEMENT OF FOREIGN INVESTMENT<sup>96</sup>

The consequences of instrumentalist and formalistic approaches to law are compounded by problems of practical implementation. The case of China's regulation of foreign investment is particularly instructive—not merely because of the general importance of foreign investment to China's economic output, but also because the officials and companies that are the administrators and subjects of law in the foreign business sector are more attuned to the role of formal regulation than are their counterparts in the purely domestic Chinese economy. As this case study suggests, particular problems have arisen of policy indeterminacy and inconsistent regulatory performance.

##### *Problems of Policy Indeterminacy*

Since its inception, China's open door policy toward foreign investment has shifted back and forth along a spectrum between ex-

<sup>94</sup> This approach is evident as well in discussion of domestic legal relations, such that Chinese statements about legal reforms tend to recite legislative accomplishments with little if any attention paid to actual implementation. See e.g., "Text of Human Rights White Paper," *FBIS Daily Report-China/Supplement*, Nov. 21, 1991.(1992), and "White Paper on Human Rights," in *FBIS Daily Report-China* Dec. 28, 1995.

<sup>95</sup> For a discussion of the problem of policy-making and trade-offs, see Susan Shirk, *The Political Logic of Economic Reform in China* (Berkeley: University of California Press, 1993); Murray Scot Tanner, "Organizations and Politics in China's Post-Mao Law-Making System," in Pitman B. Potter, ed., *Domestic Law Reforms in Post-Mao China* (Armonk, N.Y. and London: M.E. Sharpe, 1994), p. 56.

<sup>96</sup> Much of the following discussion is drawn from the author's "Foreign Investment Law in the People's Republic of China: Dilemmas for State Control," in *The China Quarterly* No. 141 (Special Issue: China's Legal Reforms) (1995), p. 155.

tremes of openness and restriction.<sup>97</sup> During the first few years, China's initial opening was greeted with great enthusiasm by foreign firms, who were then disappointed by subsequent retrenchment policies during which numerous foreign contracts were cancelled (and a sense of gloom descended on foreign business interests.) The Chinese government's renewed attention to inducing foreign business and the enactment of additional regulations on joint ventures and tax matters spurred greater optimism and activity in the mid-1980s.

However, foreign business people were continually frustrated by the inadequacy of the regulatory regime, the impenetrability of the Chinese bureaucracy, and a multitude of practical obstacles. The State Council's 1986 "Measures for the Encouragement of Foreign Investment" offered the prospect of further improvements, but these appeared doomed by the Tiananmen massacre and the nation-wide repression that followed. Deng Xiaoping's 1992 visit to Shenzhen and his speeches extolling the virtues of establishing a socialist market economy in China brought yet another wave of foreign business interest.

Most recently there has emerged a theme of "macro-management," which signals yet further withdrawal of state control based on the presumption that this is required by market oriented policies.<sup>98</sup> Derived in part from this conceptual approach, the Chinese government removed long-held barriers to foreign control over economic distribution and basic energy production. Regulations on foreign investment in retailing enterprises will permit foreign capital to penetrate the critical consumer products market, one where decentralized distribution systems make state control difficult.<sup>99</sup> Regulations permitting foreign investment in mining activity raise the possibility of foreign control over extraction and distribution of resources not merely for export, as in the case of off-shore petroleum, but for use in the domestic economy.<sup>100</sup> The removal of restrictions against foreign participation in infrastructure<sup>101</sup> and power generation projects signals a similar trend.<sup>102</sup> While many foreign businesses have welcomed the expanded opportunities offered by these developments, there is little basis for concluding that they have institutional permanence. Rather, they appear to be efforts to

<sup>97</sup> See generally, Pitman B. Potter, "The Role of Law in Inducing Foreign Investment into the PRC" (1990 Institute Issue Paper, 1992).

<sup>98</sup> See e.g., "Final Version of 14th CPC National Congress Report," in *FBIS Daily Report-China*, Oct. 21, 1992, pp. 1-21, at p. 8 where the reference to macro-economic regulation and control is presented as an alternative to the conventional state planning systems of the past. This represented a marked albeit gradual departure from the emphasis placed on the planned socialist commodity economy at Fourth Session of the Seventh NPC the previous year. See Li Peng, "Report on the Outline of the Ten-Year Programme and of the Eight Five-Year Plan for National Economic and Social Development," in *Beijing Review* Apr. 15-21, 1991, pp. 1-24. For a reiteration of the macro-management approach, see "Decision of the CPC Central Committee on Issues Concerning the Establishment of A Socialist Market Economic Structure" (Nov. 14, 1993), in *China Economic News*, 1993 Supplement No. 12, Nov. 29, 1993, pp. 6-9.

<sup>99</sup> See "State Council Investment in Retailing Provisions," in *China Law and Practice*, Mar. 25, 1993, p. 43.

<sup>100</sup> See *China Daily*, Feb. 21, 1994. For discussion of the offshore petroleum regime, see Michael J. Moser, "Legal Aspects of Offshore Oil and Gas Exploration and Development in China" in Michael J. Moser, (ed.), *Foreign Trade, Investment and The Law in the People's Republic of China* (Hong Kong: Oxford University Press, 1987) p. 270.

<sup>101</sup> See Chen Chien-p'ing, "State Commission for Restructuring the Economy Drafts an Open Policy to Allow Foreign Businessmen to Invest in Infrastructure Facilities," *Hong Kong Wenwei Po*, Mar. 5, 1992, in *FBIS Daily Report-China* Mar. 5, 1992, p. 49.

<sup>102</sup> See "China," in *International Private Power Quarterly*, First Quarter, 1994, pp. 26-39.

entrench reformist policies before the death of Deng signals yet another round of political conflict and policy change.

Long-term policy indeterminacy is likely to undermine the effectiveness of law and regulation. Officials are often unwilling to enforce current laws and regulations when they lack confidence in the permanence of the underlying policies. More importantly, in an environment where officials are granted substantial discretion to interpret regulations so as to enforce particular policies, policy uncertainty breeds regulatory uncertainty. This in turn promotes the tendency to interpret and enforce regulations based on parochial rather than national concerns. Aside from undermining official authority, this obscures the meaning of laws and regulations from the business operators who are required to comply with them. A deteriorating spiral ensues by which officials more and more regularly either refuse to interpret or interpret arbitrarily relevant laws and regulations, while business operators steadily lose confidence in the integrity of the regulatory system and seek extra-legal means to accomplish their business goals.<sup>103</sup> This crisis of confidence has the potential to severely undermine the institutional foundations for state regulation of China's foreign business relations.

### *Inconsistent Regulatory Performance*

One product of policy indeterminacy is the inconsistency of regulatory performance. Despite the continued expansion of the legal system governing foreign investment, the performance of the system remains a major concern of foreign businesses.<sup>104</sup> Particular problems include lack of consistency in interpretation of laws and regulations, bureaucratic interference in business operations, and the arbitrary imposition of levies and fees. Differing patterns of regulatory intervention have also been evident, such that in some regions administrative agencies have been quick to impose amendments to joint venture contracts in order to resolve disagreements, while in others regulatory inaction has been the norm.<sup>105</sup>

Inconsistent regulatory behavior is often the product of the conflicting goals of different bureaucracies, whose regulatory power is subject to few effective limits. For example, provisions of the People's Bank of China prohibiting foreign bank representative offices from engaging in profit-making activities were contradicted by the rules issued by the tax authorities (and practice by tax regulators) imposing foreign enterprise income taxes on such offices based on calculations of "deemed profits".<sup>106</sup> As well, national regulations are subject to countermanding by local measures. For example, the State Council's Measures for Encouraging Foreign Investment included a specific provision granting foreign investment enterprises

<sup>103</sup> For discussion of the problems of uncertainty with government policies and directives, see James B. Stepanek, "China's Enduring State Factories: Why Ten Years of Reform Has Left China's Big State Factories Unchanged" in Joint Economic Committee of U.S. Congress, ed., *China's Economic Dilemmas in the 1990s: The Problems of Reforms, Modernization, and Interdependence* (Washington, D.C.: 1991), p. 440.

<sup>104</sup> See "The Council's Investment Initiative," in *China Business Review*, Sept.-Oct., 1992, pp. 6-10.

<sup>105</sup> See "Yi qi hezuo jingying qiye hetong jiu fen an" (A case of a dispute over a cooperative joint venture contract), in Qi Tianchang, *Hetong anli pingxi* (Critical analysis of contract cases) (Beijing: University of Politics and Law Press, 1991), pp. 416-422.

<sup>106</sup> Compare PBOC Procedures on Establishment of Foreign Financial Rep Offices, *supra*, Art. 8 with Foreign Enterprise Income Tax Implementing Regulations, *supra*, Art. 24.

autonomy in hiring and firing staff without interference. Yet this was quickly contradicted by local regulations requiring labor union approval for personnel dismissals—in effect imposing the requirement of Party approval for such decisions.<sup>107</sup> Local authorities have also been known to exceed their authority in unlawfully dismissing joint venture managerial personnel.<sup>108</sup>

A particularly useful example of inconsistencies in regulatory performance lies in the area of technology acquisition, where measures encouraging technology development expressed in various investment regulations have been contradicted in regulatory enactments limiting the rights of foreign technology transferors.<sup>109</sup> While the investment incentives under the 22 Articles and China's nascent intellectual property protection system have been presented as encouraging the licensing of technology to China, regulations governing the content of technology import contracts have sought to diminish the capacity of foreign technology licensors to limit the activities of their licensees.<sup>110</sup> First, these measures prevent the licensor from limiting use of the technology after expiration of the license, in effect permitting the Chinese licensee unfettered enjoyment of the technology. In addition the contract must not oblige the Chinese recipient to accept "unreasonably restrictive" provisions, which include limits on sales of goods produced with the technology—in effect undermining the market coordination activities of foreign investors. Finally the two sets of rules impose substantial and burdensome warranty requirements, including warranties on the quality of products produced with the technology—in effect requiring the licensor to warrant the capability not merely of the technology but of the entire production process in which it is used.

Also, the regulatory scheme for conferring investment incentives to advanced technology enterprises has the potential for counterproductive effects. In order to qualify as an advanced technology enterprise under the State Council's "22 Articles" incentive scheme, a foreign investment enterprise must provide technology and engage in developing new products or the upgrading or replacement of existing products in order to increase foreign exchange through the sale of exports or import substitution methods. In addition, the foreign enterprise needs to demonstrate to the Ministry in Charge

<sup>107</sup> Compare "State Council Measures For the Encouragement of Foreign Investment," *supra*, with "Shanghai Municipality, Sino-Foreign Equity Joint Venture Labor Union Regulations" (in *China Law and Practice*, Feb. 26, 1990, p. 52), Arts. 6 and 8.

<sup>108</sup> See e.g., "Zhuguan bumen neng shanzi huan heying qiye jingli ma?" (Can the department in charge exceed its authority and replace the manager of a joint venture enterprise?), in Zhang Huihong, *Shewai jingji fa anli jixi* (Analysis of foreign economic law cases) (Beijing: Youth Publishing, 1990), p. 245.

<sup>109</sup> See generally, Stanley B. Lubman, "Technology Transfer to China: Policies, Law and Practice," in Michael J. Moser (ed.), *Foreign Trade, Investment and the Law in the People's Republic of China* (Hong Kong, Oxford, New York: Oxford University Press, 1984); Pitman B. Potter, "Technology Transfers to China" in Zhang Lixing, Dorinda Dallmeyer, Robert K. Paterson, and Thomas J. Shoenbaum, eds., *Chinese Economic Law and Selected Comparisons From the Pacific Rim* (Athens, Ga.: University of Georgia, 1988); and Denis Fred Simon, "China's Acquisition and Assimilation of Foreign Technology: Beijing's Search for Excellence," in Joint Economic Committee of U.S. Congress, ed., *China's Economic Dilemmas in the 1990s: The Problems of Reforms, Modernization, and Interdependence* (Washington, D.C.: U.S. Gov't Printing Office, 1991), p. 565.

<sup>110</sup> See "Regulations on the Administration of Technology Import Contracts of the People's Republic of China" (1985); and "Detailed Rules for the Implementation of the Administrative Regulations of the People's Republic of China on Technology Import Contracts" (1987), in CCH, para. 5-570, 5-573, respectively. For discussion of these provisions, see Pitman B. Potter, "Technology Transfers to China," *supra*.



that its technology satisfies certain specified criteria: the technology production processes or critical equipment used by the enterprise must be listed among those specifically encouraged or desired by the central government; must be "appropriate and advanced" in nature; and must be either in short supply, able to increase exports or import substitutes, or have the potential of developing new products.<sup>111</sup> Each of these requirements in effect permits the Ministry to impose on advanced technology enterprises continually escalating requirements as a condition for continued receipt of investment preferences.

The record of the Chinese regulatory and legal systems in the foreign business sector may fairly be characterized as one of unfulfilled expectations. The PRC government has devoted significant resources and political capital to the drafting of laws and regulations in response to the expressed concerns of foreign business. The legislative record is prodigious. However the assumptions on the part of foreign businesses that once enacted laws and regulations would be enforced in a relatively stable and predictable manner have gone unfulfilled. The instrumentalist concept of law has motivated the enactment of parochial policy driven measures, whose enforcement cannot be assured in a climate of transitory policy consensus. More often than not the enactment of law is the expression of an ideal, which itself is viewed as sufficient without further effort at enforcement. This is not, however, sufficient for the subjects of law, namely the foreign businesses seeking stability and predictability in their transactions. Thus the instrumentalism and formalism in Chinese conceptions about the content and enforcement of law are matched by policy indeterminacy and regulatory inconsistency resulting in a significant lack of confidence on the part of economic actors in the legal system as a whole. To a large extent, this pattern is replicated with greater severity in the domestic economic system, where economic actors with long experience in the peculiarities of PRC rule are even more ambivalent about the effectiveness of formal law and regulation.

### CONCLUSIONS

The Chinese legal reforms carried out since late 1978 had operated in conjunction with reforms in the economic system aimed at introducing market-oriented policies. China's legislative record over the past 15 years is impressive in terms of scope and breadth. However, many problems remain that inhibit the role of law supporting economic reform over the long term. The most fundamental problem is one of enforcement of law and regulation, such that instead of providing predictability and certainty to market-based economic relationships, the legal and regulatory systems are sources of uncertainty. Persistent tendencies toward instrumentalism and formalism undermine the potential for law to serve as an autonomous body of objective norms governing economic transactions. In turn, policy indeterminacy and regulatory inconsistency have plagued the implementation of those laws that have been enacted.

<sup>111</sup>See State Council Implementing Rules for the Confirmation and Examination of Export Oriented and Technologically Advanced Enterprises with Foreign Investment (1987), Article 4.

To a large extent, these are predictable phenomena in a system making the transition from concepts of law as a public regulatory and largely punitive institution, to one aimed at assisting autonomous and private market actors. Nonetheless, the problems posed for China's transition to a market economy are significant, and continued and vigorous attention is needed to problems of concept and implementation before the PRC's socialist legal system will serve effectively to complement China's economic reform.

# CHINA'S ENERGY FUTURE: THE ROLE OF ENERGY IN SUSTAINING GROWTH

By Jonathan E. Sinton, David G. Fridley, and James Dorian \*

## CONTENTS

	Page
Summary .....	244
Introduction .....	244
Characteristics of China's Energy System .....	244
Energy Supply and Demand .....	244
Coal .....	247
Oil .....	248
Natural Gas .....	251
Electricity .....	251
Energy Demand .....	253
Intensity Analysis .....	253
Energy Constraints on Growth? .....	257
Forecasts to 2020 .....	257
Demand Forecasts .....	257
Supply Issues .....	259
Coal .....	259
Oil .....	259
Natural Gas .....	260
Electricity .....	261
Renewable Energy .....	262
End-Use Issues .....	263
Energy Pricing .....	263
Financial Incentives .....	265
Institutions for Promoting Efficiency .....	265
Vulnerabilities of China's Energy System .....	266
Underinvestment in Energy Supply and Efficiency .....	266
Security .....	268
Conclusions .....	268

## TABLES

Table 1. Structure of China's Primary Energy Production and Consumption, 1980 and 1994 .....	245
Table 2. China's Energy Balance, 1994 .....	246
Table 3. World Bank Forecast of Energy Demand: Slower Growth Scenario .....	258
Table 4. World Bank Forecast of Energy Demand: High Efficiency Scenario .....	258

## FIGURES

Figure 1. Final Energy Use by Energy Type .....	247
Figure 2. Final Commercial Energy Use by Sector .....	254

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## SUMMARY

China is now the world's second largest energy consumer after the United States, with three-quarters of its commercial energy from coal. By 2020, energy use may jump from nearly 1 billion metric tons of coal equivalent in 1990 to over 3.3 billion tons, with coal still the major energy source. For the past decade, energy consumption has grown half as fast as economic output. This rapid improvement in energy efficiency—resulting chiefly from rising end-use efficiency and product quality—has permitted China's economy to grow phenomenally despite inadequate supplies of electricity, oil, and gas. Biomass remains the main energy source for most of China's households. Industry still dominates the sectoral structure of final energy use, though commercial and transportation uses are growing rapidly, as well as household use of electricity. Further improvements in energy efficiency and emissions controls must accompany growth in supplies of electricity, oil, gas, and renewable energy sources, as well as improvements in coal supply quality, if China is to sustain rapid growth while avoiding unacceptable environmental consequences, both within and beyond its borders. This will require continuation of economic-system reforms, as well as specific policy measures aimed at fostering investment in better supply and energy-efficiency options.

## INTRODUCTION

In 1994, the People's Republic of China overtook Russia as the second largest energy consumer in the world after the United States. Between 1980 and 1994, energy consumption in China rose on average 5.2% per year, while GDP over the same period averaged 9.7% annual growth. In a remarkable achievement, one of the world's largest and most rapidly growing economies has quadrupled economic output in 15 years with only a doubling of energy consumption. Energy is often seen as a constraint to rapid growth, but China's experience suggests that it need not be. In this paper we review how China's economy has managed to thrive despite limitations in energy supplies and low energy efficiencies, and examine how the energy system of the world's most populous country may facilitate or hinder continued expansion.

## CHARACTERISTICS OF CHINA'S ENERGY SYSTEM

## ENERGY SUPPLY AND DEMAND

China's energy system is dominated by the production and consumption of coal. At 75%, the share of coal is the highest of any major economy. Coal provided over 90% of China's energy supply as recently as 1963, but the proportion began to decline as new oil and gas fields were brought on line in the 1960s, reaching a low of 69% in 1976. The overall structure of China's energy system has undergone little change since 1980; in terms of both production and consumption, the importance of coal and hydropower has continued

to grow while the shares of oil and natural gas have experienced relative decline (Table 1).<sup>1</sup>

TABLE 1. Structure of China's Primary Energy Production and Consumption, 1980 and 1994.

(Percent)

Type of Energy	Production		Consumption	
	1980	1994	1980	1994
Coal .....	69.5	74.6	72.2	75.0
Oil .....	23.7	17.6	20.7	17.4
Natural Gas .....	3.0	2.0	3.1	1.9
Primary Electricity .....	3.8	5.8	4.0	5.7

Source: *China Statistical Yearbook*.

This continuity in the overall structure of energy use at the macro level, however, masks important shifts in the way energy is mobilized, processed and used. As the economy has modernized, the demand for more "modern" energy forms has grown in tandem. For example, only 21% of the coal consumed in 1980 underwent conversion to either power or heat for end users—the vast majority was consumed directly in boilers, stoves, and other uses.<sup>2</sup> By 1994, the proportion of coal converted to power and heat had increased to about one-third (Table 2).

Figure 1, which shows the structure of energy end-use in 1994, further illustrates this point—coal and other solid fuels accounted for slightly less than half of total end-use, and electricity and delivered heat for about a third.

China's has basically two different energy systems. The first is an industrialized and urban one, dominated by fossil fuels. The other is rural and still largely agricultural, though increasingly industrialized. While rural industry is growing at a faster rate than any other sector of the economy—pulling along with it rural use of commercial energy forms—the over three-quarters of China's population that lives in the countryside depends largely on biomass for its daily heating and cooking needs. The second pie chart in Figure 1 demonstrates the continuing importance of biomass fuels in China's energy economy. Wood, straw, and dung are virtually the only sources of energy for tens of millions of rural residents, and together these sources still account for one-fifth of end-use. Over 100 million rural residents remain without power, although government efforts continue to shrink this number gradually. In the remainder of this section we deal only with supply and demand of commercial energy forms.

<sup>1</sup> Because trade in energy products is small relative to total energy consumption, the fuel structure of primary energy consumption mirrors primary production.

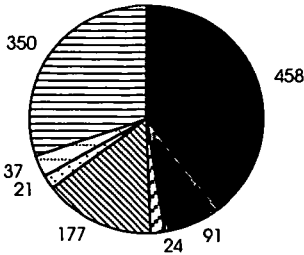
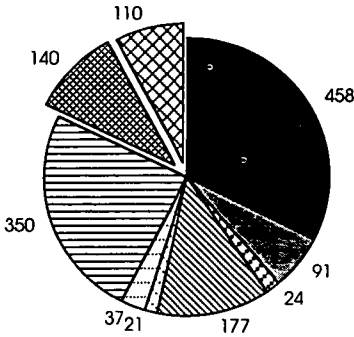
<sup>2</sup> Jonathan E. Sinton, David G. Fridley, Mark D. Levine, Fuqiang Yang, Zhenping Jiang, Xing Zhuang, Kejun Jiang, and Xiaofeng Liu, 1996, *China Energy Databook*, LBL-32822.Rev.3, Berkeley, Lawrence Berkeley National Laboratory.

TABLE 2. China's Energy Balance, 1994.

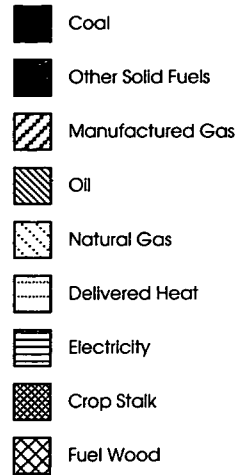
(Million tons coal equivalent)

Item	Coal <sup>a</sup>	Other Solid Fuels <sup>b</sup>	Manufactured Gas <sup>c</sup>	Oil	Natural Gas	Delivered Heat	Electricity <sup>d</sup>	Total Energy <sup>e</sup>
Primary Supply and Trade .....	879.17	-4.30	0.00	212.89	23.35	0.00	72.76	1,184.57
Primary Production .....	885.66	0.00	0.00	208.69	23.35	0.00	73.59	1,191.98
Imports .....	0.86	0.00	0.00	37.99	0.00	0.00	0.75	39.60
International Bunkers .....	0.00	0.00	0.00	2.67	0.00	0.00	0.00	2.67
Exports .....	-18.19	-3.92	0.00	-32.79	0.00	0.00	-1.57	-56.48
Stock Changes .....	10.84	-0.38	0.00	-3.67	0.00	0.00	0.00	6.79
Transformation .....	-454.55	97.32	23.68	-33.51	-1.24	38.20	301.35	-29.26
Fossil Power Generation .....	-287.23	0.00	-1.27	-16.62	-1.11	0.00	301.35	-5.04
Delivered Heat .....	-39.57	0.00	-2.58	-7.35	-0.14	38.20	0.00	-11.77
Coal Washing .....	-4.63	0.00	0.00	0.00	0.00	0.00	0.00	-4.63
Coking .....	-118.11	96.02	12.13	0.00	0.00	0.00	0.00	-9.96
Oil Refining .....	0.00	0.00	5.99	-8.56	0.00	0.00	0.00	-2.57
Gas Manufacture .....	-6.42	2.15	9.41	-0.99	0.00	0.00	0.00	4.16
Coal Products .....	1.41	0.00	0.00	0.00	0.00	0.00	0.00	1.41
Losses .....	4.36	0.00	0.00	3.38	0.35	0.70	24.08	32.87
Transportation & Distribution .....	2.56	0.00	0.00	0.43	0.07	0.44	21.52	25.01
End Use Consumption .....	458.18	90.65	23.70	177.23	21.48	37.45	350.04	1,158.85
Agriculture .....	12.79	1.08	0.00	10.94	0.05	0.01	21.44	46.30
Industry .....	314.09	87.93	18.76	81.83	18.42	31.47	264.08	816.70
Feedstocks .....	19.44	5.79	0.08	37.54	6.76	0.00	0.00	69.62
Transportation .....	10.90	0.07	0.02	65.63	0.10	0.05	6.63	83.40
Commerce & Public Services .....	25.71	0.29	0.43	11.08	0.25	1.06	22.87	61.69
Residential .....	94.69	1.28	4.50	7.74	2.65	4.87	35.03	150.76
Statistical Discrepancy .....	37.92	-2.37	0.02	1.24	-0.29	-0.05	0.00	36.42

<sup>a</sup> Raw and washed coal and coal products.<sup>b</sup> Coke and coking byproducts, excluding gases.<sup>c</sup> Coking gas, refinery gas, and town gas.<sup>d</sup> Electricity is converted at a nominal average heat rate of 0.404 kgce/kWh. This convention is adopted because most of China's electricity is generated by coal-fired power plants, and so that end-use figures reflect the fuel replacement value of electricity used.<sup>e</sup> Total includes a small amount (<0.7 Mtce) of other fuels, mainly used for power generation and heating.Source: State Statistical Bureau (China). Data modified in accordance with Sinton *et al.*, 1996.

**Figure 1. Final Energy Use by Energy Type.****Commercial Energy Only****Commercial & Biomass Energy**

Unit: Mtce

**Coal<sup>3</sup>**

Under China's Ten-Year Development Strategy (1991–2000), coal production is targeted to increase from the current 1.3 billion tons (Gt) (1995) to over 1.4 Gt in 2000. The country's resource base is more than sufficient; at 115 Gt, China's proved reserves of coal are about half the level of the United States and the former Soviet Union. Of the total hard coal resource base, 12% is anthracite, 29% is coking-quality bituminous coal, 46% various grades of bituminous steam coal, and 13% lignite (brown coal). Northern China possesses most of China's easily accessible high quality coal. Moreover, southern coals are generally higher in sulfur and ash, making them unsuitable for many applications. Consequently large amounts of coal are shipped from north to south, putting a great strain on the transportation system, especially railroads.

Since the early 1980s the central government has encouraged the development of small, collectively and individually owned coal mines in rural areas to alleviate local shortages. Rural mines are generally very small and poorly equipped, often requiring no more than a few farmers with hand tools, rope, and baskets, so unit investment is much lower than that for larger mines. The result has

<sup>3</sup> For further descriptive detail on commercial energy supply and demand see Sinton, *et al.*, 1996; Dorian, James P., 1994, *Minerals, Energy, and Economic Development in China*, Oxford, Oxford University Press. An earlier review of many issues covered in this paper are in Fridley, David G., 1991, "China's Energy Outlook," *China's Energy Dilemmas in the 1990s: The Problems of Reforms, Modernization, and Interdependence*, Joint Economic Committee Report, Washington, D.C., United States Congress, 494–526.

been a remarkable shift in the structure of coal output; between 1980 and 1993, 70% of the growth in output came from the new rural mines, which now account for over two-fifths of output. The development of rural mines may soon slow, however, and issues of mine safety and rational use of coal resources (rural mines tend to waste a large fraction of usable resources) will spur construction of more capital intensive, highly mechanized mines in the near future. Very little coal—about 3%—comes from opencast mines.

Only 18% of raw coal output is washed and sorted, and nearly all washed coal is used in coking or for locomotives. The low overall rate of washing means that most of the coal transported contains relatively large amounts of waste material, taxing an already overburdened transportation system and lowering efficiencies in end uses. Prospects for increasing the percentage of coal washed are hampered by the dearth of water in the most productive coal mining regions and the lack of willingness on the part of consumers to pay a premium for coal of better quality (largely because of lax enforcement of environmental regulations).

China has been an exporter of coal since 1950. Exports have more than quadrupled since 1980, reaching nearly 25 million tons (Mt) in 1995, as newly built coal washing, rail, and port facilities made more of China's high quality coal available for export. Japan is by far the most important buyer of Chinese coal, followed by South Korea, Taiwan, Hong Kong, and North Korea. Imports, mainly from Vietnam, are small.

After years of incremental changes in coal pricing policy, China began accelerating reforms in the early 1990s, and finally removed coal price controls in 1993–1994. Average mine mouth coal prices from state-owned mines rose only incrementally during the 1980s, but by 1992 were double the levels prevailing four or five years earlier, and have since risen even higher. Average retail coal prices rose quickly as they were allowed to float in 1993, then leveled off rapidly as supply met (and even exceeded) demand. In some cases 1994 prices were lower, even after addition of the new value-added tax. In general, there is wide regional variation in coal prices, which tend to be lower near areas of coal supply than in the eastern and southern coastal provinces.

### *Oil*

In recent years, China has substantially altered its domestic oil policy in the face of rapid growth in demand and the resultant shift from being a net exporter to a net importer. Abandoning the long-held policy of self-reliance, China has come to depend heavily on foreign participation and technology in oil and gas exploration, though the downstream oil industry has remained difficult to penetrate. China shifted its trade policy in oil significantly after the oil price collapse of 1986 and the resultant national debate over high dependency on oil exports. Crude exports have seen a continuous decline as a greater proportion is diverted to domestic refineries, while imports have grown significantly. Similarly, restrictions on product imports were eased in 1986, resulting in a rapid increase in product (primarily diesel) imports, while product exports have declined in most years since then.



In 1995, China produced 149 Mt of crude oil, making it the world's sixth largest oil producer. Onshore production totaled over 140 Mt, and offshore production rose to more than 8 Mt. China's crude output is expected to rise to 151 Mt in 1996. China's oil resources are not large by world standards; the total resource base is estimated at 9.6 Gt, of which up to 3.2 Gt is proved reserves. This ranks China tenth among oil-producing countries, just ahead of Libya. The easily reached oil fields in the North and Northeast have been in production since the early 1960s, and output at China's largest oil fields has peaked. Most exploration has been near currently producing basins, but development of resources in the far Northwest and offshore has accelerated in recent years (often in conjunction with foreign partners) in order to meet long-term demand. Although some producing fields have been found, and production from the newly opened fields in the Tarim and Turfan-Hami basins of the far Northwest has risen quickly, exploration has not yet uncovered any sources that would allow China to avoid dependence on large amounts of imported oil. Development of those fields and long-distance transport infrastructure will be key to maintaining domestic output in the long term as yields from older fields decline. New finds and improvements in drilling techniques mean that the importance of offshore oil will continue to increase, but production is expected to peak in 1997 at 12 Mt.

Refinery throughput has risen steadily since the reorganization of the refinery sector in 1982, but it fell slightly in 1994 as a result of the surge of crude product imports in the last quarter of 1993 and the resultant sharp increase in inventories. Although utilization of refineries remained at 80% and below in recent years, the government's decision to restrict product imports, in part to protect domestic refineries, resulted in a resumption of crude oil import growth in 1995 and a rise in utilization of the country's 3.5 million barrels per day of refinery capacity to nearly 85%. With demand inexorably rising, China faces the need for significant refinery expansion in the near term, in addition to revamps and upgrades necessary to adapt domestic refineries to an expected increasing volume of Middle East higher-sulfur crude imports.

The composition of refined products has shifted significantly since 1980. In particular, the yield of fuel oil has more than halved from 42 wt% in 1980 to 18 wt% in 1995 owing to continued large investments in refinery upgrading units—particularly fluid catalytic crackers—in the 1980s and 1990s. As a result of this investment program, the total yield of light and middle distillates rose from 48 wt% in 1980 to 64 wt% in 1994. Output of transport fuels has risen significantly. Historically the highest priced product in a refinery, gasoline had jumped from 14 wt% to 22 wt% of total output by 1994 and 1995. Diesel yields, however, rose slowly over this period despite rapid growth in demand resulting from low and subsidized ex-refinery prices, but following the increase in diesel prices in 1994, yields rose to 26%, just two percent higher than in 1980. Currently, jet fuel accounts for about three-fourths of total kerosene output, up from only one-fourth in 1980.

China currently has more than 8,700 km of crude and finished oil pipelines, with an annual throughput of 138 Mt, most of it carried in five crude oil pipelines in the Northeast and North that to-

gether account for 21% of total pipeline length. Although a number of long-distance product pipelines have been proposed, and a major new one between Fushun and the Liaoning coast was recently put into operation, easing transport congestion in refinery-intensive Liaoning province, China will remain dependent on rail for long-distance transport of products for the foreseeable future.<sup>4</sup>

China consumes most of its oil output, and the amount available for export has been declining. Petroleum exports have accounted for a substantial share of domestic production (between 16% and 30% over the past decade), but are not large by world standards (about 1.3% of the volume of petroleum traded internationally in 1994). In 1995, China exported 18.8Mt of crude oil and 4.1 Mt of products. Imports of petroleum were generally less than 1 Mt until the late 1980s, then in 1993 imports of crude oil and petroleum distillates (mainly diesel oil) shot up to 15.7 Mt and 17.3 Mt respectively, making China a net petroleum importer for the first time since 1970, which was itself an atypical year. Total imports dropped in 1994 to a total of 25 Mt, then rose to over 31 Mt in 1995. By 2010 China may need to import as much as 150 Mt/yr, or the equivalent of total current domestic production. Oil represents a small but significant fraction of total imports. Crude imports of 17.1 Mt in 1995, for instance, were valued at \$US 2.36 billion, constituting 1.8% of China's total imports by value. Earnings from petroleum have declined in importance relative to other exports since 1985, when 26% of gross export earnings came from energy products, nearly all oil. By 1993 energy products accounted for only 4% of export earnings.

Controls over oil product prices have been tightened in China since 1994. In May of that year, the central government simplified the pricing regime in place since the early 1980s by abolishing multi-tiered pricing of petroleum products and establishing fixed ex-refinery, wholesale and retail prices throughout the country. Pricing reform significantly squeezed the wholesale margin available to traders, who were blamed for the destabilizing sharp increase in product imports at the end of 1993 and the volatile nature of domestic prices in 1993 and 1994. Crude prices, however, remained under a general two-tier regime, with price adjustments to the refineries made through adjustment of the ratio between the higher-tier and lower-tier-priced supplies. In early 1996, crude prices were further simplified, but still remained in a two-tiered structure.

Although the price reforms of May 1994 and subsequent adjustments have brought domestic prices of both crude and petroleum products closer to import parity—in some cases higher—the system suffers from the lack of a flexible and transparent mechanism for price setting. As in 1982, when two-tiered prices were first instituted on the basis of setting the higher tier to international prices based on current Singapore prices and exchange rates, the lack of a mechanism for change resulted in a system of severe price distortions by the early 1990s, after nearly a decade of radical changes in international oil prices and China's exchange rate. The system

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<sup>4</sup>See Tang, Frank C. and James P. Dorian, 18 March 1996, "China's Oil Pipeline Network: Current Status and Future Prospects," *Energy Advisory No. 175*, Honolulu, East-West Center.

today faces the same challenge, though it is questionable to what extent China can now maintain a regime of administratively set prices as the proportion of imported—and market-priced—oil increases year by year. Already, administered prices of petroleum products in areas such as Guangdong, where imports dominate local supply, have for the most part been subsumed by the pricing pressure from Singapore, whence most of China's products are imported.

### *Natural Gas*

Natural gas resources in China are small by world standards—less than 1% of the estimated world total, and exploration and development has been relatively neglected. In 1995, 17.0 billion cubic meters of natural gas were produced in China. Analysis of geologic formations has led to expectations that natural gas resources are much greater than current discoveries indicate. Determining the magnitude and location of natural gas resources is one of the most significant issues pertaining to China's commercial energy resources.

Investment in natural gas development actually decreased in real terms in the late 1980s. Recently, however, new gas fields have been discovered and exploitation begun, most importantly, the offshore fields near Hainan, from which a pipeline to Hong Kong was recently completed (with gas deliveries begun in early 1996). Exploration in the Northwest Shaan-Gan-Ning region has also uncovered substantial gas resources, large-scale production from which is expected before the end of the century. To encourage foreign investors to participate in developing China's vast natural gas reserves, the country has been gradually increasing gas prices and reducing subsidies. Eight offshore fields are currently under development, and are expected to join the existing production force of 13 fields. China expects to produce about 30 billion cubic meters by 2000.

### *Electricity*<sup>6</sup>

China's electric power generating capacity is the fourth largest in the world, with installed capacity of about 210 gigawatts (GW) in 1995. Since the early 1980s, the government has put great emphasis on new power plant construction. Government plans call for adding 17 GW of new capacity each year for the remainder of this century, and construction at an even greater rate beyond that. Without substantial foreign investment and imports of generation and transmission equipment, however, China is unlikely to meet such ambitious goals.

Electricity generation has grown faster in recent years than production of any other energy source, more than tripling between 1980 and 1995 to nearly 1000 terawatt-hours (TWh). About four-fifths of electricity is from fossil fuel-fired plants, reflecting heavier investment in thermal generation over much of China's history since 1949. Thermal power generation is most heavily concentrated in the eastern and south-central regions, which together account

<sup>6</sup> See also Li, Binsheng and James P. Dorian, 1995, "Change in China's Power Sector," *Energy Policy*, 23(7).

for about half. Among large fossil generating units, the share of large-capacity and more efficient units has been increasing, while the capacity of less efficient units has grown slowly. About 12% of China's thermal power generation capacity is in combined heat and power cogeneration units. The number of large thermal power plants (>600 megawatts [MW]) completed or under construction has roughly doubled since the end of the 1980s. The plants are typically composed of 300 MW and smaller units; China's largest plant, Jianbi, is typical, having three 100 MW and four 300 MW units. Several plants, however, already operate or are installing units up to 600 MW. Of 82 large plants, only one is entirely oil-fired, and eight others use oil in addition to coal. China has no large natural gas-fired generators.

The share of generation from hydropower plants has declined significantly since the mid-1980s, from one-quarter to about 19% of total generation. China's technically exploitable hydropower reserves are impressive—370 GW of potentially usable capacity yielding 1,923 TWh/yr—and hold the promise of meeting a significant portion of future energy demand. The majority of large sites are in Southwest China, which possesses two-thirds of the country's potential generation. Most of the large sites, however, are far from the load centers near the coast, and long-distance transmission lines would have to cross formidable terrain. In recent years China has started building numerous large hydropower plants, many with bilateral and multilateral assistance. More than a dozen hydropower plants with capacities of 250 MW or more are under construction, including the giant (17 GW, \$40 billion) Three Gorges Project on the Yangtze River. Small scale (<25 MW) hydropower schemes have supplied otherwise unavailable electricity to many rural communities.

Recently completed nuclear power plants already contribute more than 1% of China's electricity. With two nuclear power plants already on line and under expansion (the Daya Bay plant near Hong Kong and the Qinshan plant near Shanghai) and several more planned in other locations, uranium resources are likely to play a more important role in China's energy future. China's resources may be enough to meet long-term demand from the 20 to 23 GW of nuclear capacity planned by 2010 and 40 to 50 GW by 2020, but the ability to supply a large number of conventional reactors solely with domestic resources is uncertain.

Output from geothermal and wind generators is negligible in the national context, but provide otherwise unavailable power to remote communities. Total capacity of wind generator systems in China is currently about 30 MW, and strong domestic and foreign interest in wind generation foreshadows relatively rapid development of this supply option, with plans calling for 1 GW by 2000. Early in 1995 Sino-US agreements were signed for 30 to 110 MW of wind power projects. Geothermal resources, the most promising of which are in Xizang (Tibet), Yunnan, and some coastal areas, have been exploited on a small scale. One station near Lhasa has an installed capacity of 25 MW. China reportedly has the capacity to manufacture several MW of photovoltaic (PV) cells per year, but less than 2 MW of PV capacity is currently installed.

Electricity prices have risen several times over in many areas, and are expected to continue increasing. In early 1994 six major grids adopted a scheme whereby electricity from new power plants would be priced to recover costs and a set rate of return. Some municipalities have already instituted peak pricing. Electricity prices vary greatly between regions; some customers pay subsidized rates equivalent to \$0.03/kWh or less, while others pay rates higher than in many developed countries.

### *Energy Demand*

The dominance of industry in the sectoral end use mix remains unchanged, and has in fact strengthened. Direct coal use in industry has been giving way to indirect coal use, as the share of electricity rises. Remarkably, household energy use has actually dropped in recent years, since the decline in coal use (due to increased efficiency of coal use and fuel switching) has more than offset accelerating electricity use. Commercial sector energy use is rising fastest, and now exceeds China's huge agricultural sector. Transportation energy use is going up nearly as quickly, as vehicle fleets swell; the sector now uses nearly as much oil as industry.

Per capita energy consumption has climbed steadily at a rate not quite half that of economic expansion, from 612 kgce per person in 1980 to 939 kgce per person in 1993. Over a period in which the population more than doubled (1952–1993), commercial energy consumption increased by a factor of 24, though is still less than one-twelfth per capita energy use in the United States. Regionally, the highest per capita rates of energy use are found in Beijing, Tianjin, and Shanghai, where rates are more than twice the national average. Most other areas with high per capita rates of energy use are in the northern half of the country, mainly due to coal use for winter space heating.

The sectoral structure of end-use energy demand has changed little since the initiation of economic system reforms at the end of the 1970s. Demand in other sectors has grown rapidly, but industry is still by far the largest consumer of energy, taking two-thirds of the total (Figure 2). The next largest sector—households—accounted for less than 14% of total end-use.<sup>6</sup> The energy balance in Table 2 shows that there is not a single major energy form for which industry is not the largest consumer. Only in the case of oil is there an incipient challenge; the transportation sector uses almost as much oil as industry, which consumes slightly less than half.<sup>7</sup>

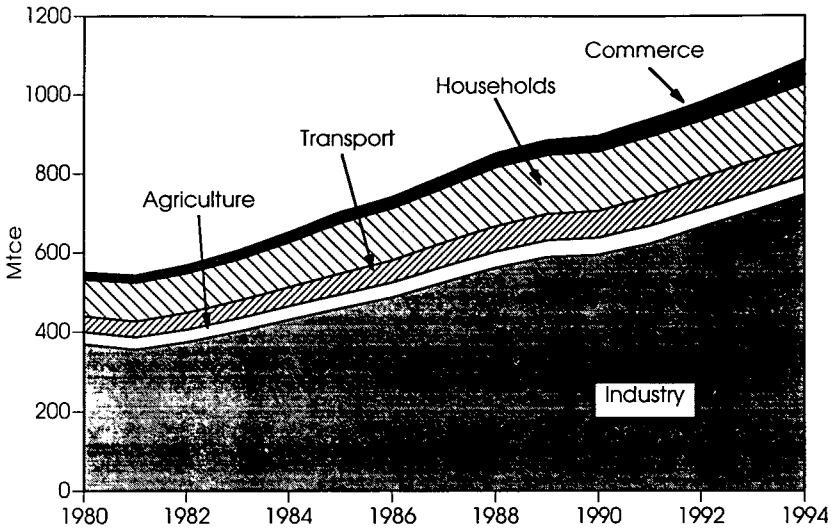
### INTENSITY ANALYSIS<sup>8</sup>

Despite the lack of change in demand structure, the energy intensity of China's economy has fallen dramatically since the late 1970s. How did this come about? The decline in China's macroeconomic energy intensity runs counter to the experience of devel-

<sup>6</sup>Direct coal use in households has been declining in absolute terms since about 1990 as coal briquettes, gas fuels, and electricity replace direct use of raw coal. Also, consumption patterns are changing, with more people eating meals out of the home, effectively transferring fuel demand from the household sector to the service sector.

<sup>7</sup>In the United States, by contrast, 65% of oil is used for transport.

<sup>8</sup>This section is based on Jonathan E. Sinton, Mark D. Levine, and Wang Qingyi, forthcoming, "Energy Efficiency in China: Accomplishments and Challenges," *Energy Policy*.

**Figure 2. Final Commercial Energy Use by Sector.**

oping countries at similar stages of industrialization.<sup>9</sup> In one sense, the reason seems simple: it would have been surprising if intensity had not declined. By the late 1970s China was burdened with production sectors that were among the most technically and economically inefficient in the world. Economic system reforms and increased trade hardly help but contribute to correction of numerous irrationalities, among them excessively high energy intensity. Many observers expected that a great deal of the intensity change would come from structural change in the economy, as the previous overemphasis on heavy industry gave way to preferential development of light industry and services.

Structural change in the economy, however, has actually accounted for surprisingly little of the huge drop in intensity. Decomposition analysis by a number of researchers has shown that by far the biggest contributing factor has been economic intensity change (i.e., the change in energy consumption per unit of economic output in real terms) within sectors (sectoral intensity change), and particularly within industrial subsectors.<sup>10</sup> This finding is contrary to

<sup>9</sup> Such a finding is, of course, predicated on the accuracy and reliability of the underlying data. Reports of widespread misreporting of statistical data in China, including hidden inflation in economic output, lead one to suspect that the decline in macroeconomic energy intensity may not be so dramatic (see for example Field, Robert Michael, 1992, "China's Industrial Performance Since 1978," *The China Quarterly* 131:584-587; *China News Digest*, <http://cnd.cnd.org>, 26 July 1995 and 17 August 1994. Indeed, using producer price indexes to deflate current industrial output results in a data series that exhibits significantly slower growth than official statistics of real industrial output, but the basic and dramatic downward trend in intensity is unaffected.

<sup>10</sup> Jonathan E. Sinton and Mark D. Levine, 1994, "Changing Energy Intensity in Chinese Industry: The Relative Importance of Structural Shift and Intensity Change," *Energy Policy*, 22(3):239-258; Xiannuan Lin, 1992, "Declining Energy Intensity in China's Industrial Sector," *The Journal of Energy and Development*, 16(2):195-218; Karen R. Polenske and Xiannuan Lin, 1994 "Conserving Energy To Reduce Carbon Dioxide Emissions in China," mimeo, Cambridge, MA, Massachusetts Institute of Technology; Zhijun Xie, 1994, "Studying the Policy of Improving Energy Use Efficiency To Relieve Energy Shortages," report prepared with the support of the

continued and often unsubstantiated claims inside and outside China that shift in sectoral shares of total output (structural change) has been the most powerful driving force in the fall in energy intensity.<sup>11</sup> Structural change actually pushed intensity upwards in most years. The corollary to this conclusion is that great scope remains for intensity reduction through structural change in the future.

In terms of both economic output (national outcome, a measure that approximates gross domestic product) and energy use, the industrial sector is by far the largest, accounting for 61% and 67% respectively in 1992.<sup>12</sup> Industry is thus the key sector for understanding China's energy intensity changes. What may seem most surprising is that, in the face of energy shortages, China's heavy industries have continued to grow nearly as fast as light, less energy-intensive industries. What many people seem to neglect in analyzing China's economic success, however, is that the boom in consumer goods manufacturing and construction is predicated on a simultaneous expansion of the raw materials and intermediate goods industries needed to feed the producers of finished goods. As with the economy as a whole, subsectoral intensities dominated the decline in industrial sector intensity, both for fuel and electricity. Changes in subsectoral structure accounted for only a small portion of the decline.<sup>13</sup> The greatest contributions to intensity drops came from the building materials, chemicals, machinery, ferrous metals, and paper industries, in that order. The first three together accounted for over 60% of the sectoral intensity decline. Work to date suggests that between one-third and one-half of the intensity decline in the industrial sector was due to efficiency improvements.

Most observers of China believe that continued economic-system reforms are the key to further reductions in China's energy intensity.<sup>14</sup> Some have suggested that changes in investment and energy-use behavior resulting directly from reforms have been the major factors in intensity reductions to date.<sup>15</sup> In this view, reforms have brought the microeconomic environment in which enterprises function closer to the ideal of a well-functioning market economy. This is thought to have encouraged an increase in the relative contribution to total economic output of less energy-intensive

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World Bank Robert S. McNamara Fellowships Program, September; Jin-ping Huang, 1993, "Industry Energy Use and Structural Change: A Case Study of the People's Republic of China," *Energy Economics*, 15(2):131-136; Warren Palmer, 1992, "Electric Power Shortages and the Chinese Economy," Ph.D. dissertation, Department of Economics, University of Wisconsin.

<sup>11</sup> The high profile of this position was recently reinforced by Peter Davies, chief economist of British Petroleum, who explained China's "energy-efficiency achievements" as being the result of shifting the focus of development to light, less energy-intensive industry (reported in *China News Digest*, <http://cnd.cnd.org>, 17 October, 1995).

<sup>12</sup> Sinton, *et al.*, 1996.

<sup>13</sup> Note that shifts between economic sectors (e.g., agriculture and industry) tended to push the intensity of the economy as a whole up significantly, while shifts between subsectors of the industrial sector tended to pull the intensity of the industrial sector down slightly.

<sup>14</sup> Joint Study Team (National Environmental Protection Agency of China, State Planning Commission of China, United Nations Development Programme, and the World Bank, 1994, *China: Issues and Options in Greenhouse Gas Control*, 12 vols, Washington, DC: The World Bank, China and Mongolia Department, Industry and Energy Division; Qingyi Wang, Jonathan E. Sinton, and Mark D. Levine, 1996, "China's Energy Conservation Policies and Their Implementation, 1980 to the Present, and Beyond," Berkeley, Lawrence Berkeley National Laboratory report (draft).

<sup>15</sup> See for example World Bank, 1993, v. The authors of the report gives much credit for intensity declines in the 1980s to government policies and programs aimed specifically at improving the efficiency of energy end use, but view them as inadequate for continued gains. See also Xie, 1994, iv-v, 13-14.

sectors (sectoral shift effects), improvements in product quality (product mix effects), and adoption of more energy-efficient production techniques and equipment (technical-efficiency effects).

Recent work shows that, in the cement industry, at least, reforms have generally promoted intensity declines by exposing enterprises to competitive markets that increasingly demand higher quality products.<sup>16</sup> Technical energy efficiency has improved mainly as a secondary outcome of installing new equipment to meet demand to more and better product, since reducing production costs through energy efficiency continues to be a strategy of limited appeal, even given the deepened economic reforms of the early 1990s. Only in rare cases has efficiency been the main goal of technology adoption projects. Surprisingly, there are numerous cases in which economic logic and resource constraints make less-efficient technologies attractive. For the most part, however, new equipment tends to be more energy-efficient than average, often because state-sponsored programs have made more-efficient versions widely available and have demonstrated their attractiveness in terms of meeting multiple goals. It seems likely that reforms in general have led to improved technical efficiency in large measure because state-sponsored efficiency programs made better technologies available.

Even without their indirect effects, state-sponsored efficiency investments had a substantial direct impacts on overall energy intensity. Chinese energy researchers and planners realized late in the 1970s that future energy supplies would be insufficient to meet the needs of economic development unless the efficiency of energy end-use was improved significantly, sparking a vigorous, multi-pronged effort to promote energy efficiency that continues to the present.<sup>17</sup> A major element of the program was the establishment of an agency to oversee disbursement of energy-efficiency project loans, which now total over two billion yuan (\$240 million) annually. Direct savings from energy conservation projects may have accounted for between 11% and 15% of the change in energy intensity of the Chinese economy between 1980 and 1990.<sup>18</sup> Adding in the indirect effects of these demonstration investments, plus energy quota management, standards and other programs (like education, training, and technical assistance programs aimed at enhancing awareness of an receptiveness to efficient technologies), the total impact of in-

<sup>16</sup>Jonathan E. Sinton, 1996, "Energy Efficiency in Chinese Industry: Positive and Negative Influences of Economic System Reforms," Ph.D. dissertation, Energy and Resources Group, University of California, Berkeley.

<sup>17</sup>For an account of the events and politics surrounding the establishment and implementation of China's energy efficiency activities, see Yingzhong Lu, 1993, *Fueling One Billion: An Insider's Story of Chinese Energy Policy Development*, Washington, D.C., Washington Institute Press. For other sources that present efficiency policy in the broader context of energy policy see Mark D. Levine, Feng Liu, and Jonathan E. Sinton, 1992, "China's Energy System: Historical Evolution, Current Issues, and Prospects," *Annual Review of Energy*; Yang, Fuqiang, Ning Duan, Zhijie Huan, Mark D. Levine, Nathan C. Martin, Jonathan E. Sinton, Dadi Zhou, Fengqi Zhou, and Chengzhang Zhu, 1995, *A Review of China's Energy Policy*, Berkeley, Lawrence Berkeley Laboratory Report LBL-35336. Sources focusing on specific aspects of China's efficiency programs include Levine, Mark D., and Xueyi Liu, 1990, *Energy Conservation Programs in the Peoples Republic of China*, Lawrence Berkeley Laboratory Report LBL-29211; Zhiping Liu, Jonathan E. Sinton, Fuqiang Yang, Mark D. Levine, and Michael Ting, 1994, *Industrial Sector Energy Conservation Programs in the People's Republic of China during the Seventh Five-Year Plan (1986-1990)*, Berkeley, Lawrence Berkeley Laboratory Report LBL-36395; Zhong Xiang Zhang, 1995, "Energy Conservation in China: An International Perspective," *Energy Policy*, 23(2):159-166.

<sup>18</sup>Sinton and Levine, 1994, p. 253.



tentional efforts to improve the efficiency of energy end-use in China was quite substantial.

#### ENERGY CONSTRAINTS ON GROWTH?

As in many industrializing countries, China's energy supply industries have often been unable to meet all potential demand—which leads many to assume that growth in general is constrained by lack of energy. Chinese statements on the subject often present energy as a constraint to growth.<sup>19</sup> In the late 1980s, many parts of China suffered coal shortages so severe that some power plants had to shut down for lack of fuel, and there were instances of regions commandeering coal shipments by military force to keep their power plants running. While coal supplies are now quite abundant compared to demand, oil and electricity are still in short supply. Newspapers and other sources have often reported that electricity shortages idle 20% to 30% of China's industrial capacity.<sup>20</sup> Even a short stay in China will convince the visitor of the ubiquity of power outages, and industrial managers have no shortage of complaints about the security and quality of power supply. Nevertheless, China has maintained double-digit economic growth rates in the face of severe power shortages. Growth has been so fast that the threat of inflation has led to repeated attempts by the central government to rein in the scale of investment. Constraints on the availability of capital have often overshadowed infrastructural bottlenecks in preventing investment.

Whether China's economy would have grown faster had energy supplies always been sufficient to meet all demand is, of course, a matter of speculation. The very speed of economic development in China argues for the view that energy supplies probably have not constrained growth in an absolute sense. Rather, relative energy shortages have probably helped to shape the direction of growth, channeling efforts to create greater wealth in ways that, for instance, did not require the presence of very reliable electric utilities. End-use efficiency improvements, as discussed above, also played an extremely important role. In a kind of boot-strap process, a bit of economic expansion made possible investment in new, more energy-efficient production equipment that allowed further growth and accumulation of investment funds, and so on. Still, forecasts show that there is little question that overall energy demand will keep growing, particularly for electricity, liquid fuels, and gas fuels. Without continued heavy investment in both a modern energy supply system and in energy-efficient technologies, energy may truly limit further economic growth.

#### FORECASTS TO 2020

##### DEMAND FORECASTS

Under almost any scenario of economic growth, China's energy demand is expected to jump significantly over the next 25 years. The World Bank recently concluded an evaluation of China's energy demand future as part of its effort in assessing options for

<sup>19</sup> *Beijing Review*, January 4–10, 1993, "Energy Shortage Hinders Economy," 36(1):5–6.

<sup>20</sup> Li and Dorian, 1995.

controlling the growth of greenhouse gas emissions to 2020. In its report *Issues and Options in Greenhouse Gas Emissions Control* published in early 1995, the study team, which included both World Bank and Chinese researchers, analyzed three main scenarios of energy demand growth in China. Its "baseline" scenario, in which China's GDP would continue to grow at an average of about 8% per year over the period, primary energy consumption would rise from the nearly 1 billion tons of coal equivalent in 1990 to over 3.3 billion tons by 2020 (Table 3).

The World Bank team examined two alternative scenarios (Tables 4-5). The "slower growth" scenario looked at the consequences of a 1-1.5% per year slowdown in GDP growth on energy demand. Under these circumstances, China's GDP would be almost 35% smaller than in the baseline scenario by 2020, but energy consumption would be only 10% less. This is a result of lower rates of capital investment, particularly in new and more energy-efficient equipment and production facilities, resulting in slower declines in energy intensity of the economy. Nonetheless, total primary energy demand by 2020 reaches nearly 3 billion tce. Compared to the baseline scenario, total demand for coal, oil and natural gas are all lower.

TABLE 3. World Bank Forecast of Energy Demand: Slower Growth Scenario.

		1990	2000	2010	2020	AAG 1990-2000	AAG 2000-2020
Primary Energy Use ...	mmtce	987	1,535	2,226	2,879	4.5%	3.2%
Coal .....	mm t	1,051	1,551	2,226	2,671	4.0%	2.8%
Oil .....	mm toe	113	176	257	370	4.5%	3.8%
Natural Gas .....	10 <sup>9</sup> m <sup>3</sup>	15	28	63	104	6.4%	6.8%
Power .....	TWh	126	362	508	871	11.1%	4.5%

Source: World Bank, *Issues and Options in Greenhouse Gas Emissions Control*, Subreport No. 2, Feb 1995, p. 43.

TABLE 4. World Bank Forecast of Energy Demand: High Efficiency Scenario.

Type of Energy		1990	2000	2010	2020	AAG 1990-2000	AAG 2000-2020
Primary Energy Use ...	mmtce	987	1,474	2,136	2,841	4.1%	3.3%
Coal .....	mm t	1,051	1,467	2,078	2,530	3.4%	2.8%
Oil .....	mm toe	113	174	267	410	4.4%	4.4%
Natural Gas .....	10 <sup>9</sup> m <sup>3</sup>	15	29	65	110	6.8%	6.9%
Power .....	TWh	126	362	508	871	11.1%	4.5%

Source: World Bank, *Issues and Options in Greenhouse Gas Emissions Control*, Subreport No. 2, Feb 1995, p. 44.

The third scenario posits the results of concerted efforts to raise energy efficiency to advanced levels throughout the economy. Although total energy demand by 2020 in this scenario is nearly equivalent to that forecast in the slower growth scenario, there is a significant shift in the mix of energy, as coal demand declines even further while demand for oil and natural gas increases.

This tremendous increase in the quantity of energy demanded will not be easy to achieve, as it will require enormous investment in production, conversion, and transportation and transmission facilities. Until 1993, when China became a substantial net importer of petroleum, the country has historically relied primarily on domestic supplies of energy to fuel its economic development, but its future supplies are likely to become more diversified in source. Large increases in the production of coal and hydropower are possible given their huge natural resource base in China, but extensive new discoveries of petroleum and natural gas reserves would be necessary to offset the expected tremendous growth in demand for these energy forms.

#### SUPPLY ISSUES

##### *Coal*

In terms of impact, if not necessarily attention, China's major energy supply issues will continue to relate to coal. The quality of mine output is going to be intimately bound up in questions of technology and ownership. China has probably reached the limit of its ability to depend on small, collective and private underground mines to drive increases in coal output. While requiring little investment, these mines are unsafe, produce low-quality product, and exploit the resource base much less efficiently than larger mines. Improvement in the coal supply system will take heavy investment in new, large-scale, highly mechanized underground and surface mines. To achieve their full benefits, these investments will have to be accompanied by expansion of coal beneficiation and transport facilities. This will ensure that the better product from new mines makes its way to end users, and with minimum strain on China's overloaded transport system. China's leaders and coal corporations recognize the cost and environmental benefits of investing in a coordinated program of coal supply development, but are often hindered by a lack of funds, and could benefit from the transfer of technology from abroad.

##### *Oil*

In 1993, China became a net importer of petroleum as a consequence of the slowdown in growth of domestic oil production and continually rising domestic demand. Since 1988, oil production has grown at an average annual rate of 1%, while demand for petroleum products over the same period has grown by an average 5% each year. With demand forecast to rise 4% to 5% annually for the next few decades, only a massive increase in domestic oil production could avert China's long-term dependence on imported oil. Although the government has placed greater emphasis on the long-term potential of the Tarim Basin in far western China, the severe climate, remote geography, and great expense of building a pipeline to consumer centers make it unlikely that production from Tarim Basin (and the nearby Turfan-Hami Basin) could reverse China's growing import dependence in the near to medium term. In 1995, production from Tarim and Turfan-Hami reached nearly 5 million tons, 2.5 million tons from Tarim alone. By 2000, however, China is expected to require the import of 40–45 million tons (800–900

thousand barrels per day) of oil, and over 200–250 million tons (4–5 million b/d) by 2020.

China currently secures its imported crude oil primarily from Southeast Asia and the Middle East, and the majority of petroleum product imports come from Singapore. Until 1994, petroleum products dominated the import slate, but it has since shifted to crude oil imports as China has sought to raise the utilization rate of its domestic refineries in order to minimize product imports and to take advantage of the relatively lower price of crude oil. As demand continues to grow, however, China faces a number of critical challenges in the provision of imported oil. One is the availability of domestic refining capacity; in 1995, utilization of refineries rose to about 85%, leaving little operating margin given the typical annual turnaround of most Chinese refineries. Although incremental expansion of existing refineries has taken place continuously in the 1990s, no new grassroots refineries have been built and put into operation since the Fujian refinery came on stream in 1993. With demand expected to increase by an average 11 million tons per year through 2020, China will require the equivalent of 1–2 grassroots refineries in new capacity every year over that period to maintain a rough balance in domestic product supply. In the absence of this extra capacity, China will need to expand the volume of product imports substantially, greatly increasing import costs and likely creating upward pressure on regional product prices. Even with the additional refining capacity on stream, however, China faces the additional challenge of converting to the use of higher-sulfur crude oil, as export availability of low-sulfur crude from Southeast Asia declines and Middle East dependency grows. China's current refining system has been designed and constructed on the basis of low-sulfur domestic crude oil, output from which requires little hydrotreating for sulfur. At the same time that new capacity will need to be built, China will also need to invest in refinery revamps to allow the handling and processing of higher-sulfur crude oil.

### *Natural Gas*

Rapid expansion of natural gas supplies is a key element to transforming China's energy system, but many doubts remain about how to do it. World Bank projections (see Table 3) of natural gas use are very optimistic given known resources. Recent large finds are encouraging, but a great deal more exploration is needed to determine whether China will be able to fulfill large new increments in demand from its own fields. An alternative is to build pipelines that will bring in gas from the huge fields in Russia and perhaps central Asia. Both domestic supplies and imports, however, will require long lead times and large investments.<sup>21</sup>

Regardless of the extent to which supplies are increased, a question crucial to environmental and human health impacts will be the sectoral distribution of supplies. At present, most of China's natural gas goes to industrial uses, including feedstocks; oil field and refinery use alone account for over 35% of the total, while fer-

<sup>21</sup> Dorian, James P. and Brett Wigdortz, 28 June 1996, "Turkmenistan Gas: Distribution and Possible Transport to China and Japan," *Energy Advisory*, No. 181, Honolulu. Program on Resources: Minerals and Energy, East-West Center.

tilizer plants consume nearly 40%. Households—where the benefits would be greatest, since gas fuels would replace highly polluting solid fuels that are burned in rooms where people spend a large portion of their time—use very little of the country's gas; in 1994, residential use accounted for about 13% of the total.<sup>22</sup> This is changing in some areas (a 900-km pipeline to Beijing from Shaanxi province, now in preparation for construction, is intended in part to carry gas to residences). Another sector that uses relatively little of China's natural gas is power generation. The most likely source to feed power generation, however, is not pipelines from remote areas or other countries, but production from China's offshore areas or imports of liquefied natural gas (LNG) to China's coastal provinces. The expensive LNG option is being considered only for the relatively wealthy coastal areas, where alternatives such as nuclear power are also being considered in order to meet the ravenous appetite for electricity without the drawbacks of coal-fired power generation.

### *Electricity*

Long-term dependence on coal of China's power generation system is a certainty. The question is how rapidly the technology of coal use can be improved, and to what extent other sources of electricity can be brought into play.<sup>23</sup> Better use of coal in utilities depends in part on some of the improvements in the coal supply system noted above, e.g., coal washing. Matching of coals to utility boiler specifications will also be needed, as well as development and installation of inexpensive flue gas desulfurization. In the long term, China needs to expand the use of efficient clean coal technologies such as advanced fluidized bed boilers and integrated gasification/combined cycle systems (which remove sulfur from exhaust gases without additional equipment).<sup>24</sup>

Efficiency in generation will have to be combined with efficiency in transmission and distribution. Line losses in China's grids are quite high, especially on low-voltage rural grids. The potential for continued inefficiency in distribution is quite large, since a major focus of grid development is continued extension of the system to the over 100 million rural Chinese who still have no power. Here, again, the extent of foreign participation in design and manufacturing of equipment will in part determine the speed of progress in this area.

Development of long-distance transmission capacity is also crucial to exploitation of China's huge untapped hydropower potential, most of which is far from demand centers. This is the country's largest source of renewable energy that could be tapped in the near future, and a major alternative to other sources of electric power. Unfortunately, as long as the massive Three Gorges Project is drawing away most of the funds available for hydropower develop-

<sup>22</sup> Tang, Frank C. and Fereidun Fesharaki, 9 January 1996, "The Natural Gas Industry in China: A Decade in Review and New Developments," *Energy Advisory*, No. 171, Honolulu, Program on Resources: Minerals and Energy, East-West Center.

<sup>23</sup> See Joint Study Team, 1994, for an in-depth survey of alternatives for electricity development.

<sup>24</sup> The U.S. Department of Energy's Clean Coal Technology Program has already helped to introduce these U.S. technologies to China through demonstration projects.

ment, prospects are dim for building the many smaller projects with much shorter lead times.

As noted above, China's nuclear generation capacity is likely to reach 6.3 GW by 2005, and could be as high as 8.3 GW by 2010. Capacity expansion beyond that will depend on the willingness of the provinces to invest in the nuclear option, expansion of domestic nuclear fuel supply capability, willingness to become dependent on foreign sources of nuclear fuel, local acceptance of nuclear power plants and fuel cycle installations (including parts of China where environmental issues can combine with ethnic conflict to raise security issues), and political determination to pursue a costly and risky technology. China currently has the capability to build 600 MW PWRs, and 1 GW PWR capability is under development with foreign cooperation with foreign companies. Some in China are eager to build breeder reactors, but expect development would take 30 to 40 years.

Aside from technological and finance issues, the future of utility regulation will also have a major impact on the direction of development. Under current circumstances, local administrations still have strong incentives to build and operate very small power plants (under 25 MW), which tend to be inefficient and highly polluting. Unless there are changes in regulatory structure to make these less attractive and to promote installation of larger, more efficient, and cleaner units, China will be saddled with a tremendous number of long-lived and very wasteful small power plants.

### *Renewable Energy*

Currently the contribution of renewable energy sources (other than hydropower) to China's supply mix is quite large: one-fifth of primary energy, and most of that used by rural households, comes from biomass. This situation will be slow to change, but a move away from biomass fuels would be very beneficial in terms of soil fertility and erosion, desertification, and possibly human health (if households switch from biomass to cooking and heating fuels other than coal). The link to agricultural productivity—a key concern of China's leadership—makes this issue especially important. One of the determinants in this transition will be the speed with which structural changes and technical assistance promote the introduction of commercial forms of biomass energy use, e.g., commercial-scale biogas digesters for supply of household fuels, and biomass-fired heat and power generation units. Another will be the ease of switching to improved household fuels; wider availability of LPG, for instance, could have a great impact. More-efficient biomass cookstoves have already been introduced into rural households, but the same will have to be done for coal stoves in order to avoid serious health impacts.<sup>25</sup>

The contribution of other renewable energy sources is currently small, but is already important in certain areas. Wind turbine power generation, in particular, is key in supplying electricity to remote communities, and is being developed rapidly, with strong foreign participation. Strong investment in renewable energy

<sup>25</sup> Gu Shuhua, Huang Kun, Qiu Daxiong, and Kirk R. Smith, 1991, *100 Million Improved Biomass Stoves in China: How Was It Done?* EWC/ESMAP/UNDP Evaluation of Improved Cookstove Programs. Honolulu, Environment and Policy Institute, East-West Center.

sources is required now if China is to have these options available a few decades hence, when switching away from fossil fuels will be an even more urgent issue than it is now. Joint development with other countries of renewable energy alternatives may prove to be in the best mutual interest.

#### END-USE ISSUES

Attaining economic growth targets at the least possible environmental cost will require that the energy intensity of China's economy continue to improve. As discussed above, little of the change in China's intensity to date has come from fundamental shifts in the structure of output. China is following a path to greater prosperity that has already been traveled by many other countries, however, and it is likely that, some time over the ensuing decade, the country's economic structure is going to shift away from industry—and heavy industries within the industrial sector—towards less energy-intensive sectors. Given the increasing market orientation of the economic system, however, policy makers no longer have much power over the direction of structural change. This is not to say that there is no place for active promotion of greater energy-efficiency in the economy. Deepening of economic system reforms will improve the chances that end users will adopt cost-effective energy efficiency measures. Beyond that, there is an ongoing important role for the government in improving the end-use efficiency of energy use, which will continue to be an important source of intensity decline. Few tasks are more important to China's long-term economic and environmental health.

What are the most appropriate and effective means of intervention? Administrative means (i.e., the "command and control" measures characteristic of the energy quota management system) are unsuited to the current environment—the one likely to prevail as China's economic system continues to be transformed. How can China retain its commitment to improving energy efficiency through the transition periods, keeping features of the current efficiency-promotion system that will be suited to the new environment, and developing new institutions and programs? Energy pricing has been a much-discussed topic, but rational pricing is not a sufficient condition. Establishing good financial incentives and modifying the organizational arrangements for promoting efficiency will be crucial as well.

#### *Energy Pricing*

Getting energy prices "correct" is a standard feature of recipes for rationalizing energy use, in part through improving end-use efficiency, in China and other countries. "Correct" prices are typically taken to mean those that, at the very least, reflect long-run marginal costs of supply, and preferably include major externalities like environmental damages. In a market-based economy, like the one China is moving towards, price signals are crucial in shaping patterns of energy use. The price mechanism is theoretically attractive and has been shown, through empirical work, to be an impor-

tant ingredient in energy-efficiency improvements in countries with market economies.<sup>26</sup>

China has already made a great deal of progress in reforming its energy markets, though progress has been tortuous and slow. Before the reforms China had always controlled energy prices at low levels. Prices of all energy products were under the unified control of the state and energy was allocated strictly according to plans. During the first phase of reform (1980–1991), energy price reforms had an experimental character, and were undertaken with the principles of the “birdcage” economy in mind—i.e., the “bird” of the market portion of the economy should operate within the boundaries set by the “cage” of the planning system. This resulted in the adoption of some peculiar policies, like the multi-track pricing system, under which designated portions of products could be sold outside the plan at higher prices. At the same time, allocations of cheaper, in-plan energy shrank, so that enterprises bought larger shares of inputs at market prices. While this system represented progress in the sense that consumers faced higher marginal energy costs for out-of-plan energy, it also had a number of drawbacks, e.g., it provided opportunities for corruption, and directed attention toward negotiation of prices and quotas.

Further progress in reforming energy prices is likely to continue to be slow. Powerful interest groups at several levels will ensure that the maze of retail rates that consumers of electricity face will not be rationalized any time soon. In any case, while rate structures remain confused, overall retail rates are rising fast in most areas, and most consumers expect more increases. The central government is unlikely to relinquish control over oil products in the near future. Coal prices, while now market-based and stable, do not reflect the considerable environmental consequences of supplying and burning coal. Given the unwillingness of even wealthy, developed countries to apply significant, environmentally motivated levies on coal use, however, there will probably be no large increases in coal prices in the near term. Furthermore, without implementation of much higher pollutant emissions fees than are currently in place, there is little reason for consumers to purchase coal that has been washed, sorted, and matched to the application.

While energy price issues remain important, they may not be of paramount concern to those wishing to promote energy efficiency. Energy prices will not be enough on their own to promote levels of energy efficiency that are desirable from an environmental standpoint.<sup>27</sup> First, continued efforts to reform prices may yield little change or be unnecessary. Reforms in the pricing of coal, China’s dominant fuel, are already reasonably complete, so there is no more “fund” of incentive to conserve from that quarter, barring heroic efforts to apply an environmental tax. Prices of electricity are going up—the right direction from the point of view of encouraging efficiency—so little attention need be paid to the overall trend (though refining rate structures will be crucial). Oil pricing is too highly charged politically to tackle in the near term, but absolute

<sup>26</sup> See for example, Meyers, Stephen and Lee Schipper, 1992, “World Energy Use in the 1970s and 1980s: Exploring the Changes,” *Annual Review of Energy and the Environment*, 17: 463–505.

<sup>27</sup> This view is also expressed in Joint Study Team, 1994.



price levels have already neared those of imports. Second, increasing energy prices may not be the most effective means of encouraging efficiency investments in many cases, especially if the major driving forces in investment decisions are the desire to meet market demand as quickly and with as little up-front investment as possible. Research in countries with market economies has shown that significant non-market barriers to efficiency investment discourage adoption of cost-effective measures. In China, price reforms may have already proceeded to the point where the bottlenecks to more adoption of efficiency measures have less to do with energy prices than other factors.

### *Financial Incentives*

One of the great ironies of the economic system reforms of the early 1990s was that they wiped away a raft of financial incentives to invest in energy efficiency. Those financial incentives were created mainly in the 1980s, when the planning system was still dominant and probably blunted their effects, but were tools more suited to a market economy. The very reform packages that would have made the incentives more effective tools for promoting efficiency, however, stipulated the wholesale scrapping of older sets of codes and regulations, including measures intended to stimulate efficiency investment. The modifications to the tax code that allowed, for instance, the tax rate reductions and tax holidays on efficient technology development and investment projects were all abolished when the new simplified tax code was instituted at the beginning of 1994. Banks in some areas, which reportedly have had to subsidize low-interest loans for efficiency projects when the central government failed to provide subsidy funds, have become less willing to lend for efficiency projects.

Financial incentives like tax breaks and interest subsidies are important tools in encouraging investment in market economies. Even if a particular efficiency investment is sound by standard economic criteria, end-users typically demand better performance (e.g., shorter payback periods) than from other types of projects, like production capacity expansion. While some local administrations still provide financial incentives of the sort that the central government formerly did, the lack of continued national incentive programs (excepting those administered by China Energy Conservation Investment Corporation and the State Economic and Trade Commission, and which can only cover a small portion of potential projects) is a major gap in the state's current stock of measures to encourage efficiency.

### *Institutions for Promoting Efficiency*

The structures created under the planning system for promoting efficiency are now in jeopardy because of reforms and neglect. Reforms have severely weakened China's bureaucratic energy management apparatus. The state-owned portion of the economy, over which the system has most direct control, is shrinking, and the areas of decision-making over which the government has control are many fewer than a decade ago. The extremely valuable energy conservation service centers have gradually lost their government funding (as have all other semi-governmental organizations) and

now must vigorously market their skills if they are to survive. Once this organizational infrastructure for promoting efficiency is gone, it will be very difficult to bring back. Preserving existing efficiency-promotion organizations by aiding their transformation into forms appropriate to the market-oriented economy would be by far a wiser course than attempting to reconstruct a functionally similar set of organizations some years from now. This is one of the most urgent tasks currently facing China's energy policy-makers.

As mentioned earlier, a draft Energy Conservation Law is being considered for passage in late 1996 or later. This law would represent a major step in institutionalizing programs and incentives to promote efficiency. While some of the provisions may codify aspects of the efficiency promotion system that are already obsolete, others will strengthen existing institutions and create new ones that are appropriate to a market-oriented system. Although still subject to change, the law's key provisions may include the following:

- Key energy-using enterprises would hire energy managers who have passed a national examination.
- Key energy-using enterprises would have periodic energy audits performed by qualified outside consultants.
- All feasibility studies for new fixed asset investment projects would include a section on energy conservation.
- Ceilings on manufacturing energy intensity would be placed on various products (turning current practice into law).
- Mandatory energy-efficiency standards would be developed for certain categories of equipment and a certification system instituted.
- Financial incentives would be reinstated to encourage energy-efficiency research, development, demonstrations, and investment projects, with eligibility determined by standardized criteria.

Providing a legal basis for efficiency institutions would be a large step in the right direction in establishing a system appropriate to China's future organizational environment. Often, however, the greater challenge is to implement legislative provisions.

## VULNERABILITIES OF CHINA'S ENERGY SYSTEM

### UNDERINVESTMENT IN ENERGY SUPPLY AND EFFICIENCY

While China faces a number of challenges to achieving a timely expansion of its energy industry to ensure a sufficient supply of modern energy in the future, in a number of areas there remains the potential to seriously disrupt China's ability to achieve its supply targets or maintain an uninterrupted supply of energy to end-users. Foremost among these is the challenge of mobilizing capital and directing it to investment in the energy sector and to related infrastructure projects. Since 1990, the share of total investment in the energy sector has declined sharply, from 19% of the total in 1990 to 12% in 1993. Although the absolute amount has risen by 76%, it has been dwarfed by the increase in other investment, which has soared 280% over the same period.

The World Bank projects that China will need to spend some \$750 billion over the next ten years in the electric power, telecommunications, transport, and water and sanitation sectors alone to sustain sufficient growth in infrastructure to support projected economic growth.<sup>28</sup> To date, this investment has been supported by a high domestic savings rate of about one-third of GDP and a growing inflow of foreign direct investment. Though total investment has been impressive, if not inflationary in some years, some observers note that the continued lack of infrastructure is the largest barrier to China's economic development.

Of particular importance is transport infrastructure, including road, rail, pipeline, water, and port facilities. China's boom in trade, both foreign and domestic, has stretched transport capacity to the limit, as over a billion tons of coal and 150 million tons of crude oil, in addition to hundreds of millions of tons of steel, cement, wood, fertilizer, grain and other commodities must be distributed throughout the country, exported, or imported. Between 1988 and 1994 alone, China invested around \$US 8 billion in developing port facilities, but in 1994, the port of Shanghai, China's busiest container port, recorded a total turnover of 1.2 million standard containers compared to Hong Kong's 11.1 million.<sup>29</sup> China's ports are similarly unsuited to a rapid expansion of the energy trade. Although a steadily rising volume of crude oil and petroleum product imports are projected for the foreseeable future, China's ports currently lack sufficient terminal and storage facilities to accommodate a greatly increased volume of imports. Moreover, in the absence of deep-water ports able to accommodate the 250,000 to 350,000 dwt tankers common in international oil trade, China has had to invest in offshore SBM (single buoy moors) to handle large oil tankers (up to 200,000 tons), and has constructed terminal facilities on Zhoushan island off the coast of Zhejiang. These measures can significantly increase the cost of handling and importing oil.

Energy-efficiency investment will be crucial in achieving economically and environmentally desirable outcomes. Industrial sector and building technologies are of particular importance, since those two sectors account for the large majority of energy end-use in China. The list of energy-efficient technologies that are cost-effective from the end-user's perspective is long and varied and include building technologies (e.g., insulation and lighting systems), efficient motors, improved industrial boilers and kilns, improved heat exchangers and heat pumps, industrial process improvements, and recovery of waste gases waste heat.

Besides availability, deployment of efficient technologies will depend greatly on institutional developments. In the private sector, energy service companies (which sell energy savings to other companies and organizations) will be needed. Public and utility sector programs—which have proven effective in other countries with market-oriented economies—must be developed. This category includes setting efficiency standards and implementing demand-side

<sup>28</sup> *Infrastructure Development in East Asia and Pacific*, World Bank, 1995, cited in *The Economist*, 25 May 1996, p. 66.

<sup>29</sup> Prof. Ernst Frankel, in a speech at the Terminal Operations Conference, Singapore, 1995, cited on Timesnet at <http://web3.asia1.com.sg/timesnet>.

management programs. Some U.S. and international assistance efforts are already underway, and should be expanded.

#### SECURITY

The expected large increase in the volume of oil imports also heightens China's vulnerability to energy disruptions and raises the question of energy security and import dependency. Oil import dependency (imports of crude oil and petroleum products as a percent of total consumption) has grown from near zero in 1985 to over 10% in 1995; with imports projected to reach over 1 million barrels per day by 2005, import dependency will rise to over 25%. Moreover, as Far East crude export availability declines, China will need to depend on the Middle East for a greater proportion of its imported supply, exposing it more directly to the impact of supply disruptions from that area. Similarly, China will also have a growing interest in the security and stability of supply routes from the Middle East, especially through the Straits of Melacca and Lombok in Indonesia, through which most of East Asia's oil imports move.

Increasing market and environmental interdependencies have shifted the conception of security beyond a military dimension, to encompass economic and environmental well-being. The security consequences of China's pollutant emissions has already spread to a regional level. Japan and South Korea, both recipients of acid precipitation resulting from China's sulfur dioxide emissions, are deeply sensitive to the development of China's energy system. More distant countries, including the U.S., need to be very concerned about China's contributions to global greenhouse gas emissions, since climate change will affect all nations.

#### CONCLUSIONS

China's energy system will continue to be based on coal, and continued growth over the coming decades in total energy consumption, and therefore carbon emissions, is virtually certain. It is clear that energy supply will probably not be a constraint to China's economic development, but the impact of energy use will impose very real limits. Local pollution problems, already bad, will not have to get much worse before the immediate incentives to reduce emissions—possibly by curtailing the energy services needed to drive economic activity—will be overwhelming. Regional and international pressures to reduce pollutant emissions will also continue to grow, helping to drive China to improve end-of-pipe emissions controls, and to expand energy services through end-use efficiency rather than supply expansion. China is not considered to be very serious about its commitment to addressing climate change issues, and reacts mainly to environmental issues that are of domestic consequence. Still, it is a party to the Intergovernmental Panel on Climate Change, and its continued participation in bilateral and multilateral fora indicates that the international community will continue to have some influence on China.

Other potential threats to environmentally secure economic development are availability of financing and appropriateness of incentives. Not only will the pool of domestic and foreign funds available for efficient and less-polluting energy supply, transformation,

and end-use technologies need to be sufficient, China's economic and regulatory systems will have to be structured so that the people who make investment and technology choices have incentives to choose the better options. There is a key role to be played by foreign businesses and governments, in participating in commercial development in China and in collaborating to pursue mutually desirable outcomes. China, however, will not simply take direction from outsiders. Most of the impetus—the money and political will—for environmentally sustainable development will have to come from within China.

# THE NEW REVOLUTION IN CHINA: TELECOMMUNICATIONS AND SOCIETAL CHANGE

By Christopher Szymanski \*

## CONTENTS

	Page
Summary .....	270
Introduction: China in Isolation .....	270
The Economic Revolution Spurs Telecom Expansion .....	272
Regulation and Competition .....	275
Future Trends .....	277
Impact on Society .....	277

## SUMMARY

Never in the history of the world has a telecommunications sector developed as fast as China's is now, even though it will take many decades before China's hinterlands have even a modest degree of basic communications infrastructure. Forced by the demands of explosive economic growth, the rapid expansion of telecommunications has enormous implications for economic, societal and political change. While telecommunications traditionally deals with communication by telephone and related services, the term here has been expanded somewhat to encompass television, radio broadcasts and the Internet. This article touches on all of these and discusses the overall impact of the information age on China. In contrast to 20 years ago when rigid Maoist propaganda was the only source of news and analysis, many millions of Chinese now enjoy access to a variety of information sources and are starting to explore the information superhighway. China's leaders will wax and wane on their degree of tolerance of public discussion of controversial political topics, but the rapid development of telecommunications infrastructure is changing China in fundamental ways that cannot be reversed.

## INTRODUCTION: CHINA IN ISOLATION

As in other sectors of the Chinese economy, there has been a stunning transformation of China's telecommunications sector. After Mao Zedong died in 1976, Deng Xiaoping yanked China out

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of the throes of the Cultural Revolution and started dragging it kicking and screaming into the modern era. A foreigner living in China in the late 1970s could not direct dial another city let alone make an international call without first booking the call, telling the operator what language he or she was going to speak in, and then waiting from 20 minutes to several hours to shout over crackling phone lines. For the average Chinese it was worse. Most could not make international calls without access to foreign exchange and special permission from the authorities. There were practically no telephones for private use, and those few that were available were only for high ranking officials. Neighborhood phones in urban areas were carefully controlled by local party committees and, more often than not, monitored by the ever-present Chinese equivalent of the Russian *babushka*—a vigilante terror of a grandmother who made everyone's business her own.

The total public network capacity in 1978 in China was only 5.4 million lines, with 20,000 lines for domestic long distance.<sup>1</sup> Telephone penetration<sup>2</sup> was .38 percent compared to over 90 percent in the United States. There were almost no televisions in private hands, although there were some sets in government offices and work units for those scanty hours of evening broadcasts, with all programming devoted to Maoist propaganda and no Western content. Radio broadcasts too did not deviate from the rigid fare dictated by the Communist Party's propaganda machine. Listening to foreign radio broadcasts in the mid-1970s was strictly forbidden, and the punishment for violators was harsh. When official China began relaxing its grip in the late 1970s, and officialdom not only began to tolerate curiosity about the outside world, but increasingly encouraged it, there were precious few shortwave radios that could pick up the Voice of America and the BBC. This changed rapidly in the early 1980s when radios were increasingly available in Chinese stores and China became VOA's largest audience.

In the political climate of the late 1970s, people existed under the rigid control of their state work unit. The "unit" told you where to live, what to eat and where to travel. The local party committee even determined if you and your spouse could live in the same city. The masses of Chinese people had little knowledge of the outside world, but their repressed curiosity was boundless—crowds rapidly gathered to stare at the few foreigners who visited China in the 1970s. When President Nixon visited Beijing in 1972, Americans—glued to their television sets at home—felt they were watching broadcasts from another planet. When China's official TV service covered Deng Xiaoping's 1979 visit to the United States, the few Chinese fortunate enough to view modern America via satellite were profoundly shaken about how backward China was in comparison. One report that was widely discussed was a Chinese television interview with a "typical" American worker—an IBM vice president making over \$100,000 per year!

During those years, China, inward-looking and ignorant of the outside world, was struggling to recover from the catastrophic Cultural Revolution (1966–1976). The most forward looking among

<sup>1</sup> Except where indicated, statistics in this article are taken from annual yearbooks published by the PRC's State Statistical Bureau and from the Ministry of Posts and Telecommunications.

<sup>2</sup> The number of telephones per 100 people.

China's leaders realized that a heroic effort would be required if Deng's dream of transforming the huge, battered giant into a modern nation was to become a reality.

#### THE ECONOMIC REVOLUTION SPURS TELECOM EXPANSION

The rapid expansion of the Chinese economy—averaging 9 percent per year in real terms from 1979 to 1995—occurred after Deng Xiaoping and his supporters began to dismantle the rigid, centrally planned economy based on the Stalinist model. Deng challenged the people to better themselves and, at the same time, aimed for the kind of economy where the party and the government got out of the business of micro-managing people's daily economic lives. Gradually, and sometimes haphazardly, the leaders introduced market forces, stimulating agricultural output and the availability of consumer products. Rationing of food, clothing and consumer items gradually disappeared. Sectors traditionally reserved for large state-owned enterprises were exhorted to adopt "capitalist practices." Today, the fastest growth occurs in that 60 percent of the economy controlled by private and collective enterprises, whereas the inefficient state sector is now responsible for roughly 40 percent of economic output and has been for the most part stagnant or losing money. The transformation of the Chinese economy has been documented and analyzed in articles elsewhere in this study and in previous studies in this series.

As China's economy accelerated in the 1980s, it became obvious that China's telecommunications infrastructure was pathetically inadequate for the demands of a galloping modernization. Links between cities and with the outside world were among the most backward anywhere. China's leaders knew they needed a quick and extensive infusion of modern telecommunications equipment. The Chinese at that time were determined to import the technology and equipment with as little foreign involvement as possible. They regarded, and still regard, telecommunications as vital to national security and so prohibit foreign management and operation of telecommunications circuits.

Even after the normalization of Sino-U.S. relations in 1979, and China's turn toward the West, the Chinese telecommunications authorities did not easily gain access to needed technology and equipment. More advanced fiber optics technology and equipment required export licenses in the United States and in Western Europe. Licenses for the higher end of this technology were generally not forthcoming.

China's access to this technology received an unexpected boost on April 19, 1986, by an event the day before that had nothing to do with Sino-U.S. relations: American F-111s dropped bombs on Muhamar Qaddafi's tent on April 18. When President Reagan called Prime Minister Margaret Thatcher to thank her and Great Britain for allowing the U.S. to use British bases for the operation, the President reportedly told Thatcher that, in turn, he would grant her request that the U.S. stop blocking approval in COCOM<sup>3</sup> for

<sup>3</sup>The Coordinating Committee on Multilateral Export Controls was established during the Cold War to monitor and control the export of sensitive technologies to Communist bloc countries. Just prior to its abolition in 1994, it approved the export to China of advanced Synchronous Digital Hierarchy (SDH) fiber optics transmission systems.



the British export of fiber optic switching equipment to China. Serendipitous? Perhaps. But there was a growing recognition among Western leaders at that time that permitting the sale of telecommunications equipment to China would accelerate China's opening to the outside world.

Even though this event represented a watershed in Chinese access to more modern telecommunications equipment and technology, rapid expansion did not occur until the early 1990s when switching capacity grew at a 45 percent annual rate according to Ministry of Posts and Telecommunications (MPT) statistics. Most of this growth occurred in major urban areas, in trunk lines between cities, and in the special economic zones along China's eastern coast. Rural areas are still among the most backward in the world in terms of *teledensity*, with an estimated less than one telephone per 100 people in 1994 and with some 500,000 out of 800,000 villages lacking any service at all.

China's leaders realized that massive investment and time required to upgrade and expand the existing wire land line infrastructure would ensure that telecommunications would remain a major bottleneck in the development of China's economy. Thus they decided in the late 1980s to install a national cellular phone system that would be less costly and more efficient, a conclusion that many developing economies have reached and are acting on. With Alcatel, AT&T, Motorola, Ericsson and other Western telecommunications companies' involvement, progress in this area has been rapid. At the end of 1996, China is expected to have at least six million cellular phone subscribers<sup>4</sup>, up from 20,000 units in the mid to late 1980s. Since it was first introduced in the late 1980s, cellular service has grown at an average annual rate of 200 percent and there is some form of cellular service in all of China's provinces. This incredible expansion is expected to continue for the foreseeable future, and current growth rates suggest there may be 20 million subscribers by the turn of the century. China is experimenting with and installing some of the world's most advanced technology—MPT has adopted the analog Extended Total Access Communications System as its standard for most of the systems installed to date. While it has yet to officially choose a digital standard, already roughly 35 cellular systems based on the GSM standard have been installed to date. Chinese organizations are proceeding with plans to develop in partnership with other Asian companies a satellite-based cellular system (The Asia Pacific Mobil Telecommunications Program) that is scheduled to cover all of China and Asia by late 1998. Cellular phones, aside from being a necessity to many businesses without wired phone service, have become a status symbol to China's upwardly mobile. Adopting the term popularized in Hong Kong and South China, virtually all status-conscious Chinese want to be seen carrying the "*Da-ge-da*" ("Elder Brother").

Even more impressive has been the expansion of the paging infrastructure. With long waiting lists for telephones and high installation costs, many urban Chinese have turned increasingly to the pager. Even though he does not possess a telephone, a Chinese businessman armed with a pager returns incoming calls by using office

<sup>4</sup>This estimate for 1996 is extrapolated from existing growth rates.

or public telephones. It is not unknown for enterprising entrepreneurs to use the telephones in the elevators of luxury high-rise apartment buildings. Many an apartment dweller in Beijing has ridden up and down, accompanied by a businessman shouting into the telephone provided for elevator emergencies.

By the end of 1994, there were 17.66 million active pagers with almost 2000 licensed paging operators, representing the second largest market in the world after the United States. Some estimate that the number of pagers will surpass 26 million by the end of 1996. China's urban areas are packed with little shops offering the latest models of "BP ji" or "beeper machines."

There has yet to be a similar explosion in Internet services despite widespread enthusiasm and demand. The authorities are moving very cautiously in this area. During the 1989 Tiananmen incident, fax machines and electronic bulletin boards were widely used by demonstrators, and authorities acted quickly to tighten access. Today, Chinese authorities are still very sensitive to the security implications of providing easy and uncensored access to the information highway. Some see the State Council's rulings in early 1996, making the Xinhua News Service the overseer of economic and financial foreign wire service access in China<sup>5</sup> and seeking to censor political and pornographic materials on the Internet as a manifestation of high-level concern.

At the same time, there have been significant steps forward in gaining broader access to the information highway. In early 1996, over 100,000 Chinese were connected to the Internet and the number of users is expanding rapidly. At the end of 1995, MPT's ChinaNet reached about 700 cities with slightly more than 60,000 terminals. There are other Internet providers including *Jitong's* "GB Net," the State Education Commission's CERNET which will link all 1090 of China's universities by the year 2000, and a service provided by the Chinese Academy of Sciences (CASNET), linking researchers and professors in research institutes. The number of Internet providers is expanding to meet rapidly growing demand but the relatively low number of PCs and the still primitive data infrastructure will hamper growth over the next few years. Worried about unfettered access to the "spiritual pollution" of the West, China announced in early 1996 that it would develop and install "filters" to keep out pornography and other materials offensive to Chinese censors. Users are required to register with the local public security authorities before they can connect to an Internet provider. However, the pressures for greater access and increasing competition make rigid control problematic.

As elsewhere in the developing world, there has been a revolution in television programming and availability in China. At the end of 1994, 86 percent of urban households owned a color television, according to official Chinese statistics. (In rural areas, only 13.5 percent of homes had color TVs, but 62 percent had black and white sets.) In the 1970s, China's central television broadcasts, relayed though provincial feeds, was exclusively Maoist fare with a

<sup>5</sup> At the same time, many observers see Xinhua's assertion of control over the foreign wire services as based primarily on economic motives. Xinhua had not been able to effectively meet foreign competition and this decision gave it a guaranteed income stream as the designated regulatory body.

heavy dose of exhortation to socialist ideas. Today, it is often hard to distinguish mainland Chinese programs from what is available in Hong Kong and Taiwan. Soap operas, investigative reports of corrupt local officials, interviews with China's "floating population,"<sup>6</sup> and talent shows vie for attention with the kind of rock music video programs that the party's propaganda purists tried unsuccessfully to keep out of China in the mid-1980s. Local and regional television stations are showing Arnold Schwarzenegger movies and old American television shows.<sup>7</sup> Satellite television broadcasts are also widely available. Vast areas of China are able to receive programming in Mandarin, provided by Rupert Murdoch's Star Television. Cable penetration of urban areas is quite high. There are no accurate figures available but there are estimates that 50–60 percent of urban households are connected to some form of cable television, and provincial officials in Sichuan believe the rate there may be as high as 75–80 percent. Satellite dishes are everywhere throughout China today, whereas four years ago they were hard to spot. A vast majority of them are not authorized. In 1994, Chinese authorities attempted to control the explosive growth of dishes (dubbed "little ears" in Chinese) by requiring them to be licensed, but dishes remain widely available<sup>8</sup> and are a top item on every consumer's shopping list. They crop up even in the poorest areas of China. It is even possible to walk by a home in a rural part of China and hear the Mandarin Chinese version of MTV picked up via satellite from Hong Kong. For instance, while passing through the Tibetan foothills, one observer spotted a large satellite dish on a grass sod roof of a broken down railway car that housed several families.

#### REGULATION AND COMPETITION

Until 1994, China's Ministry of Post and Telecommunications (MPT) was in the driver's seat. It was regulator, service provider, and equipment manufacturer all rolled into one. Like all monopolies, it was unresponsive, bloated, unreliable and committed to high prices. However in 1994, the State Council took a major step introducing competition in the telecommunications sector. Despite strong resistance from MPT, the government authorized the state-owned China United Telecommunications Corporation or UNICOM (*Liantong*) to compete with MPT in all telecommunications sectors. UNICOM was and is backed by the Ministry of Railroads, the Ministry of Electronic Industry and the Ministry of Electric Power Industry, all with existing private telecommunications networks. UNICOM also has financial support from other key investors, including the China International Trade and Investment Corporation (CITIC) and is strongly supported by the State Economic and Trade Commission.

This new kid on the block has ambitious plans to install a national trunk network. It has been concentrating on providing new

<sup>6</sup>Millions of Chinese have left the less developed rural areas of China for the more developed urban and coastal areas in search of work. Hence the term, "floating population" (*liudong renkou*). Some estimates put the number as high as 120–150 million.

<sup>7</sup>An important factor holding back more expansion of this market is the relatively high cost of these movies and television shows.

<sup>8</sup>Several factories affiliated with the People's Liberation Army appear to have cornered the market.

cellular services in order to generate revenues but has been chronically short of cash. At the end of 1995, UNICOM had 300,000 cellular subscribers and was continuing to focus on developing digital cellular networks throughout China. It has GSM networks operating in Beijing, Tianjin, Guangzhou and Shanghai with eleven more under construction and anticipates service in 40 cities by the end of 1996. While MPT resistance is hampering MPT expansion, and UNICOM is troubled by disagreements among its backers, UNICOM's presence has changed the telecom market in China significantly, stimulating competition and a broader range of services, particularly in the cellular and paging areas.

MPT is still authorized to regulate the industry while retaining its predominant position as the operator of the public fixed network as well as most paging and cellular services. MPT's Department of Telecommunications Affairs is the regulatory body whereas the Directorate General of Telecommunications—MPT's operator—has moved out of the MPT compound and will theoretically operate independently from the Ministry. However, transforming MPT into a regulatory body divorced of conflicts of interest with national and provincial operators is still very much a distant and illusive goal.

There are 27 provincial Post and Telecommunications Administrations (PTA) and three municipal PTAs (Beijing, Shanghai and Tianjin) under the authority of MPT's Directorate General of Telecommunications in Beijing. With the liberalization and general loosening of control in China since the early 1980s, however, these local operators have considerable flexibility in devising modernization plans and in negotiating contracts with foreign equipment providers. This is particularly true in the more developed regions of China such as Guangdong and Shanghai, where local PTAs have larger budgets generated from local revenues and hence, greater bureaucratic independence from Beijing. This trend toward greater local autonomy will likely continue for the foreseeable future.

At the same time, the lack of strong regulatory authority is hampering the orderly development of a telecommunications infrastructure. There is a lack of connectivity among cellular systems and in many provinces, district and local People's Liberation Army units are reserving frequency spectrum for their own commercial exploitation, sometimes standing in the way of projects sponsored by the local PTAs.

The Chinese government also authorized in 1994 the construction of a series of eight private information networks, known as the Golden Projects. *Jitong* Communications Co., a consortium of 24 state-owned enterprises and affiliated with the Ministry of Electronic Industry was authorized in 1994 to initiate the projects. The Golden Bridge project is to be an advanced nation-wide ISDN, frame relay and x.25 network that will be the backbone for all the other Golden projects. The other Golden projects will include the National Economic Information Network linking the State Planning Commission with state and municipal offices and ministries to provide real-time economic data; Golden Card which is a credit card and ATM project; and the Golden Customs project, among others.

## FUTURE TRENDS

With new—albeit limited—competition, the infusion of capital, greater availability of modern telecommunications technology and foreign telecommunications companies vying for a foothold in the market, it is not surprising that infrastructure development in China dramatically took off in the early 1990s. The basic service market grew by an annual 45 percent from 1991 to 1995 and, as noted above, the cellular market has grown by an annual 200 percent since the late 1980s. Over 70 percent of all telephones are now residential. Demand is being met more quickly; the waiting list for installation has decreased by over 50 percent since 1990.

China is firmly committed to the goal of building a telecommunications infrastructure by acquiring the most advanced telecommunications technology and equipment available.<sup>9</sup> Determined to develop its own manufacturing capability, it has made impressive progress in making this goal a reality. MPT Minister Wu Jichuan has stated that China hopes to install a switching capacity of 150 million lines with a *teledensity* of 8 phones per 100 early in the next century. Urban *teledensity* of 30–40 percent is another MPT goal.

China clearly represents the largest telecommunications market in the world and will require \$10–12 billion per year in investment to install some 14 million lines. This is on the order of building the entire infrastructure of one of the regional Bell Telephone companies in the United States; or roughly the entire telecommunications infrastructure of Canada, every year.

To date, China has adamantly refused to allow joint equity and management participation by foreign companies. Many observers are predicting that China cannot provide the financing, managerial talent, and technology without significant foreign involvement and equity participation in China's telecommunications infrastructure. If China's economy continues expanding at almost double digit rates over the next five years as many anticipate, it is difficult to believe that China can maintain this rapid expansion in telecommunications without foreign equity participation. Indeed, there are already signs that regulations in this area are being honored in the breach by several joint venture operations "experimenting" on new forms of operation and management, particularly in South China.<sup>10</sup>

## IMPACT ON SOCIETY

China is poised on the on ramp of the information superhighway. There are still problems to be overcome and the telecommunications gap between urban and rural areas will remain wide for decades to come. While *teledensity* will not reach current levels in the developed world until late in the next century, it is very clear that China's coastal regions and the major urban areas will approach these levels within the next ten to fifteen years. This is having a profound impact on information availability and the ability of the average urban resident to communicate electronically. While

<sup>9</sup>Just prior to its abolition in 1994, COCOM approved the export to China of advanced Synchronous Digital Hierarchy (SDH) fiber optics transmission systems, for instance.

<sup>10</sup>See "China's Telecom Industry: Hung Up," in INDEPTH, September 1995, p. 12.

even a modest degree of telephonic penetration of the countryside is still a distant goal, television and satellites television broadcasts are reaching the most remote of villages, even those not connected to the electric grid.

If the 1989 Tiananmen Incident were to repeat itself today, the reporting and analysis of events in Beijing would reach a far greater number of people. In the late 1980s, Chinese did not have access to satellite broadcasts and except for BBC and VOA broadcasts, had very little access to alternative sources of news and analysis. Given the instinctive Chinese revulsion of chaos (*'dongluan'*), the interpretation of events—filtered through government censors—struck a responsive cord, especially in the more conservative countryside. The situation today is much different. Television images of world events are beamed throughout China through quasi-official and illegal satellite dishes. Images of any dramatic demonstrations would spread rapidly throughout China, and the visual impact would be profound. News from the outside, through Mandarin satellite broadcasts, the Internet, faxes and calls from overseas Chinese, would stimulate heated public debate. The government's version of events would not necessarily be so readily accepted.

The 1989 events at Tiananmen also illustrated another dramatic aspect of the telecommunications revolution on China. Not only have we seen that modern telecommunications have penetrated the bamboo curtain, but news inside of China has for the past ten years been easily beamed to the outside world. As international reaction to Tiananmen illustrated, vivid images of the violence in Beijing had a profound impact on world public opinion and a direct impact on China's national interests. This was something China's leaders had never before had to confront. Images of those events have been seared onto the minds of millions. Today, whenever China is mentioned in the United States, Americans still conjure the seven year old image of a lone Chinese man braving a column of tanks.

The Chinese leadership has been forced to confront highly critical foreign commentary and reporting on China. The BBC report of abuses in orphanages earlier—his year is a case in point. Twice weekly press conferences by the Foreign Ministry spokesperson have become a regular feature in Beijing, and China's leaders are attempting to respond to the barrage of press reporting on China. Chinese officials are trying to use the media to make China's case internationally. This is a vast change from the situation in the 1970s when China's propaganda machine largely ignored external commentary.

How does the average Chinese get his or her information today? There is much less reliance on the official print media for basic news. The official party newspaper has declined in circulation and, in Beijing, it is practically impossible to find it available in the hundreds of newspaper kiosks that sell papers on the streets. Instead, urban residents are clamoring for the sensational press—the unofficial scandal sheets that seem to be for sale everywhere. Programming content of radio broadcasts has also changed radically from the 1970s. Call-in talk shows have become widely popular, discussing love and marriage and even providing Dr. Ruth-type sex advice. While political topics are generally taboo, there have been

lively discussions of China's growing environmental problems, and one caller recently questioned the qualifications of a senior Chinese leader. Even Casey Kasem's top 100 is replayed on a government-controlled Beijing FM station and elsewhere in China. In the scholarly journals, there is even discussion of what political system China should adopt once the standard of living reaches levels approaching Taiwan and Singapore. Senior and mid-level officials in key ministries openly acknowledge they start their day by watching CNN for the latest news on China, Asia, and the United States.

It can be said that the telecommunications revolution in China has lifted the bamboo curtain, never to be shut again. As the Chinese economy continues to expand, so will the telecommunications infrastructure and its links to the outside. The next significant area of growth will be in Internet access. The infrastructure is being put in place and access will be increasingly commonplace. There are roughly 12–15 million PCs in China today.<sup>11</sup> One factor in this expansion has been the growing output of several computer factories in China, established as joint ventures with some of the world's largest computer manufacturers. Private purchases have been expanding. China's Ministry of Electronic Industry reported in May 1996 that it expects 1.5 million personal computers will be sold nationwide in 1996, including household sales at 600,000 units.<sup>12</sup> Some estimates are even higher and the Ministry itself stated that 6 percent of urban homes in Beijing now have PCs. Household PC ownership is expected to rise dramatically by the turn of the century. Untold numbers of eager young Chinese have caught "Internet fever," and Beijing's Cyber Cafe is a very popular hangout where the trendy set can send email on desktop computers while sipping cappuccino.

Far more important has been the impact of telecommunications and media on public discourse. In contrast to their former status as the led and the manipulated, the people of China today are taking the first very significant steps forward in debating public issues and pushing back the bounds of what is considered acceptable discussion. There is even much more open discussion of controversial issues in the National People's Congress, a body commonly described in the West as China's "rubber-stamp legislature." Leaders are confronted in small group discussions on environmental issues and corruption. Even during formal balloting, large percentages have begun to vote against the government, such as in 1993 when, for the first time, one-third of the assembly's delegates voted against or abstained in voting on the controversial Three Gorges Dam project for the Yangtze River. More recently in its March 1996 session, a sizable plurality voted against the government's report on corruption as inadequate. The genie is out of the bottle. China's leaders will wax and wane on their degree of tolerance of public discussion of controversial political topics, but the rapid development of the telecommunications infrastructure is changing China in fundamental ways that cannot be reversed.

<sup>11</sup> Reliable figures for the total number of PCs are not available; this estimate is extrapolated from sales figures reported by the Ministry of Electronic Industry in recent years.

<sup>12</sup> *The Wall Street Journal*, May 13, 1996, p. A16.

# THE CHINESE TRANSPORTATION SYSTEM: A BOTTLENECK OR AN ENGINE OF GROWTH?

By Luke S. Colton and Wayne M. Morrison \*

## CONTENTS

	Page
Summary .....	281
The Challenge of China's Transportation Deficiencies .....	282
Changes in Modes of Transportation .....	284
1952-1977: The Maoist and Pre-Reform Era .....	286
1978-1995: Deng's Four Modernizations Take-Off .....	286
1996-2010: Insufficient Transportation May Hamper Economic Growth .....	287
China's Transportation Infrastructure in the 1990s: .....	287
The Railway Sector .....	287
Network and Infrastructure .....	287
Need for Greater Electrification .....	288
Recent Developments .....	288
Streamlining Operations Key to Long-Term Efficiency .....	290
Locomotives, Passenger Trains, and Freight Cars .....	291
Major Shortcomings .....	291
The Highway Sector .....	294
Network and Infrastructure .....	294
Recent Developments .....	295
Booming Automobile Production .....	296
China's Plans for a "Family Car" .....	298
The Civil Aviation Sector .....	298
Network and Infrastructure .....	298
Lack of Adequate Infrastructure and Overwhelming Demand .....	298
Outdated Air Traffic Control and Management Deficiencies .....	299
Airline Fleet .....	301
Developing Domestic Aviation Capabilities .....	302
The Waterway Sector .....	303
Network and Infrastructure .....	303
Smallest Carrier of Freight .....	304
Recent Developments .....	305
Cargo Barges and Shipbuilding Industry .....	306
China's Transportation System as a Factor of Economic Growth .....	308
Chinese Transportation Imports And U.S. Market Potential .....	308
The Railway Sector .....	309
The Highway Sector .....	310
The Civil Aviation Sector .....	313
The Waterway Sector .....	316
Market Implications of China's Transportation Challenges .....	318

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## TABLES

Table 1. Chinese Dependency on Various Transportation Modes for Freight and Passengers: Selected Years, 1952–1994. ....	286
Table 2. Selected Railway Transportation Data: Selected Years, 1952–1994. ....	289
Table 3. Selected Highway Transportation Data: Selected Years, 1952–1994. ....	295
Table 4. GNP per Capita (1991) and Real Income Growth by Chinese Province, Selected Years, 1985–1991. ....	297
Table 5. Selected Civil Aviation Transportation Data: Selected Years, 1952–1994. ....	301
Table 6. Domestic Waterway Freight Traffic Data: Selected Years, 1952–1994. ....	305
Table 7. Chinese Transport Vehicles and Component Imports from the World and the United States: 1988–1994. ....	309
Table 8. Chinese Railway Imports from the World and the United States: 1988–1994. ....	309
Table 9. Chinese Motor Vehicles and Component Imports from the World and the United States: 1988–1994. ....	313
Table 10. Chinese Civil Aviation Imports from the World and the United States: 1988–1994. ....	314
Table 11. Chinese Waterway Imports from the World and the United States: 1988–1994. ....	318

## FIGURES

Figure 1. Investment in Transportation Relative to China's GNP and Traffic Volume: 1955–1990 .....	283
Figure 2. International Comparison of Land Transportation Networks (1989) ..	285
Figure 3. Projected Railway Bottlenecks, High Demand (2000) .....	293

## SUMMARY

Despite the remarkable progress made in developing China's transportation system since the communist regime came to power in 1949, the People's Republic of China (PRC) continues to experience major shortcomings and inadequacies in its distribution network that hamper economic performance, and will likely do so in the future. This analysis divides development of the models in Chinese transportation system into three periods of economic transformation: (1) the Maoist era (1952–1977); (2) the era of Deng Xiaoping's "Four Modernizations" (1978–1995); and (3) the projection of China's economic future (1996–2010).

Domestic transportation infrastructure, ruined by WWII and a civil war, expanded rapidly during the first decade of communist rule, yet subsided in the years thereafter. Since the early 1990s, further development and expansion of the transportation system has gained new momentum. However, the PRC has yet to satisfy its evolving economic requirements for a national transportation system that integrates all modes (railway, highway, civil aviation, and the waterway sectors), and is as modern as required for its stage of development. The era of Deng's modernization, while impressive, has been a constraint on economic development and on the domestic economy, causing severe bottlenecks, with the exception of the Special Economic Zones (SEZs) along the coastal regions.

Relative to the requirements of transforming China from a rudimentary market to an efficient market economy to the year 2010, even the prospects of meeting the projected requirements for China's transportation infrastructure are likely to fall short again. Constraining shortfalls are likely in each of the transportation sectors, and the urgent needs to both integrate all of these systems

domestically and serve a rapidly expanding foreign market, seem questionable. Were growth rates in the modernization of the transportation system to parallel those of the economy, they would need to be responsive not only to state plans but to demands of the market, as well. State policies tend to protect and control financing, technology, and the direction of transportation development. Without market guidance in the decades ahead, growth in the transportation infrastructure is unlikely to match the demands of the economy.

If developments in transportation become more responsive to domestic as well as to foreign markets, then expansion and construction of the transportation system could be more efficient and supportive of economic growth. If future developments are market-oriented, then the import requirements for more efficient transportation systems might be greatly expanded with a sufficient financial base, drawing both from domestic and foreign sources. In such a burgeoning Chinese transportation system the United States would enjoy comparative advantages in meeting market demand in many if not most transit sectors, and American export firms could find a large and potentially profitable market.

#### THE CHALLENGE OF CHINA'S TRANSPORTATION DEFICIENCIES

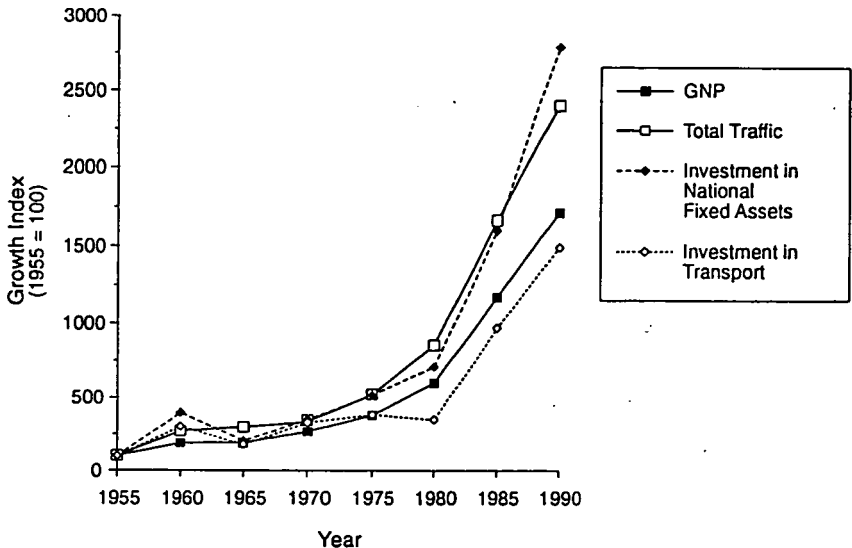
The modernization and expansion of China's outdated transportation network and related infrastructure facilities will be an influential factor in the success or the failure of Beijing's ambitions to transform itself into an economic powerhouse. As a result of China's rapid economic growth over the last 15 years, nearly every facet of the country's transportation network is being overwhelmed by rising demand, and in many cases, demand has already greatly exceeded capacity. China's railroad system—the backbone of its transportation infrastructure—is congested and unable to meet increasing demands in both freight and passenger traffic. Further, many of China's other transportation systems are outdated.<sup>1</sup> While the central government has striven to upgrade and expand the transportation network, such efforts are generally failing because of their limited scope and lack of resources. As a result, transportation bottlenecks are an increasingly serious problem throughout the People's Republic, and threaten to dampen future economic growth.

China's investment transportation capabilities have failed to keep pace with the country's rapid economic growth. According to studies by The World Bank, Chinese investment in various transportation sectors between 1981–1990 amounted to only 1.3% of annual Gross National Product (GNP), while *real* GNP over the same period surged at an average annual growth rate of nearly 9.0%, which greatly increased demand for transportation services (see Figure 1) consequently, the coverage afforded by China's intercity transportation networks is one of the world's thinnest. The total route length per capita or per unit of arable land for railways and

<sup>1</sup> See *Country Profile: China-Mongolia, 1995–96* (The Economist Intelligence Unit (EIU), London, UK.), p. 26.

highways is similar to, or lower than that in Russia, India, and Brazil (see Figure 2).<sup>2</sup>

**Figure 1. Investment in Transportation Relative to China's GNP and Traffic Volume: 1955-1990.**



Source: *China: Investment Strategies for China's Coal and Electricity Delivery System* (The World Bank, Transport Operations Division, China and Mongolia Department, East Asia and Pacific Regional Office, Washington, D.C., March 8, 1995, Report No. 12687-CHA), p. 2-2, Annex 2.

China's transportation shortages and bottlenecks have three major sectoral implications:

- In agriculture and rural industry, crops and goods have difficulty reaching the market, resulting, among other costs, in higher food prices to compensate farmers for their losses. The situation has become so bad at times as to necessitate an increase in imports to compensate for regional shortages. The central government has, moreover, on occasion, reimposed price controls on food products as a consequence of the inflationary impact on market prices, dampening the incentives to produce and complicating the transit problems.
- In the electrical power distribution network, China faces constant power shortages, due in part to the inability of the railway transportation network to supply power plants with fuel. This has restricted the supply of electricity available to industry and electrical power must be rationed. In 1989, for example, China experienced a 20% shortfall in electrical power requirements for its industrial base. Power shortages reduce the

<sup>2</sup>See *China: Highway Development and Management Issues, Options and Strategies* (The World Bank, Transport Operations Division, China and Mongolia Department, East Asia and Pacific Region, Washington, D.C., October 18, 1994, Report No. 13555-CHA), p. 4.

productive capacity of many domestic industries, as well as GDP.

- Throughout the manufacturing industries that produce goods both for the domestic as well as for export markets, transportation bottlenecks have raised costs, and limited the ability of firms to obtain raw materials and spare parts, ship finished goods to domestic and overseas markets. Although this problem is less conspicuous in the more-developed, coastal SEZs, it is a national phenomena.

Constructing a national transportation network that is integrated would help to ensure industrial economies-of-scale; efficient distribution of fossil fuels, natural resources, and other important commodities (e.g., oils, coals, and grains); as well as boost exports, and secure the timely delivery of imports. The role of China's transportation network has long been ensuring economic growth and continued prosperity to the entire country. The World Bank estimates that transportation shortages in China reduce Gross National Product (GNP) by at least one percent annually.<sup>3</sup> This would indicate a reduction in GNP of nearly \$26 billion over the past five years.<sup>4</sup> Developing an effective strategy to modernize China's transportation system may prove to be an *essential* element in maintaining high economic growth rates in the decades ahead.

China's economic growth has been heavily concentrated in the southern and eastern areas, leading to sharp disparities in economic development and incomes between the coastal and inland provinces. The central government wants to encourage more even economic development, and improve the standard-of-living across the nation. Developing an effective transportation system linking the poorer provinces with investors, suppliers, buyers, and sellers throughout China will be an important factor in promoting more even economic growth.

#### CHANGES IN MODES OF TRANSPORTATION

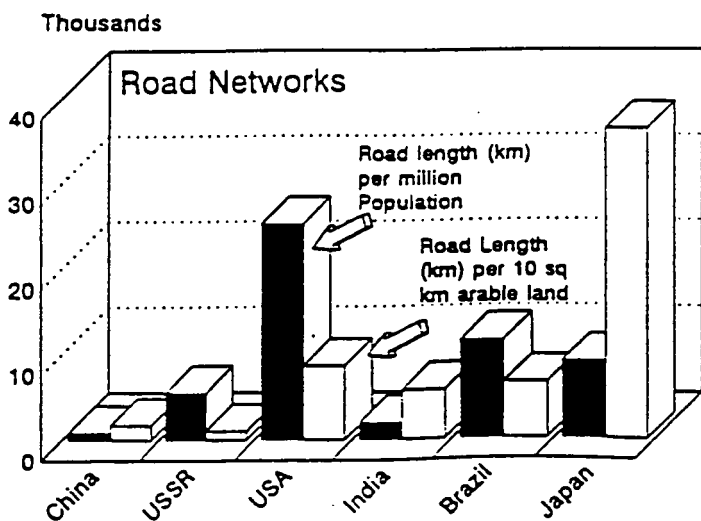
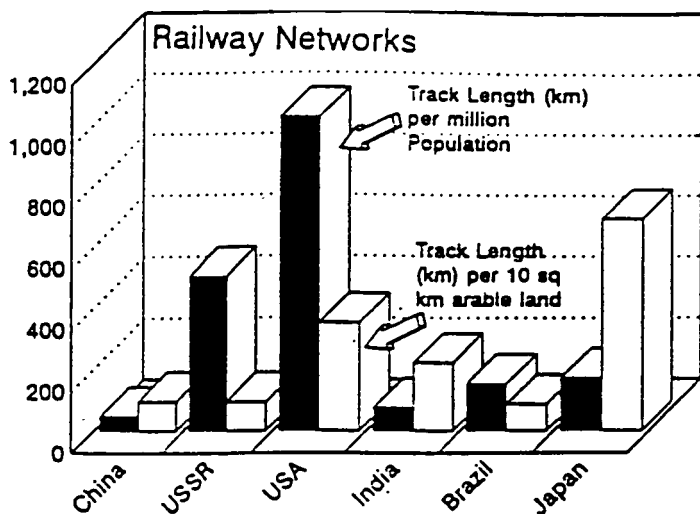
During the 1950s China relied heavily on the railway network for its transportation needs (see Table 1). In 1952 railways accounted for 82% of total freight traffic volume and 81% of passenger traffic volume; domestic waterways accounted for 16% of freight traffic volume and 9.9% of passenger traffic volume. By 1978, railway traffic volume for both freight and passengers had declined to 72.8% and 62.7%, respectively; while road traffic volume for freight and passengers increased to 3.7% and 29.9%, respectively. By 1978, the use of pipelines to facilitate the transport of raw energy commodities began to expand, accounting for 5.9% of total freight traffic volume.

By 1994 the share of railway freight and passenger traffic volume to total transportation volume had declined to 54.4% and 42.3%, respectively. The importance of roads and highways as a reliable means of transportation rose sharply above 1978 levels, accounting for 19.6% of total freight traffic volume, and 49.1% of passenger traffic volume in 1994. Domestic waterways also grew in im-

<sup>3</sup>See *World Bank Development Report 1994: Infrastructure for Development* (World Bank, Washington, D.C., June 1994), p. 18.

<sup>4</sup>Based on authors' calculations using data in real 1990 dollars.

**Figure 2. International Comparison of Land Transportation Networks (1989).**



Source: *China: Highway Development and Management Issues, Options and Strategies* (The World Bank, Transport Operations Division, China and Mongolia Department, East Asia and Pacific Region, Washington, D.C., October 18, 1994, Report No. 13555-CHA), p. 4.

portance as a mode of transportation, especially for freight traffic (23.3% of total volume) but declined as a mode of passenger travel (2.1% of total volume). Commercial air travel is another mode of transportation that has grown in importance, accounting for 6.4% of passenger volume in 1994.

TABLE 1. Chinese Dependency on Various Transportation Modes for Freight and Passengers: Selected Years, 1952–1994.

(% of total traffic volume)

Type of Transportation	1952	1978	1990	1994
<b>Freight Traffic Volume</b>				
(billion ton-km freight as a % of total volume)				
Railways .....	82.0	72.8	58.8	54.4
Highways .....	2.0	3.7	18.6	19.6
Domestic Waterways (excludes ocean shipping) .....	16.0	17.6	19.1	23.3
Pipelines .....	0.0	5.9	3.5	2.7
Civil Aviation .....	0.0	0.0	0.0	0.1
<b>Passenger Traffic Volume</b>				
(billion passenger-km as a % of total volume)				
Railways .....	81.0	62.7	46.4	42.3
Highways .....	9.1	29.9	46.6	49.1
Domestic Waterways .....	9.9	5.8	2.9	2.1
Civil Aviation .....	0.0	1.6	4.1	6.4

Source: *The Chinese Economy: Fighting Inflation, Deepening Reforms* (The World Bank, Washington, D.C., May 1996), pp.110–111. Data based on *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995).

The development of China's transportation system can be divided into roughly three periods: 1952–1977, 1978–1995, and 1996–2010.

#### *1952–1977: The Maoist and Pre-Reform Era*

The central government made great strides in improving its devastated transportation network. Railroad track length doubled from 22,900km (14,300 miles) to 48,600km (30,375 miles), while roads of each multiplied from 126,700km (79,200 miles) to 890,200km (556,400 miles). Before Deng launched his economic program of the "Four Modernizations," China had already made impressive progress towards developing a national transportation network but its transportation systems were rather primitive and the national network rudimentary, at best.

#### *1978–1995: Deng's Four Modernizations Take-Off<sup>5</sup>*

Demand for transportation services in China has outpaced the construction of new transportation systems. Between 1990 and 1994, freight traffic on China's railways increased by 173%, and the distance traveled by passengers grew by 39.2%. Yet the length of railroad track over the same timeframe increased by only 1.1%. Passenger kilometers traveled on Chinese highways rose by 61.1% during the same period, and the amount of freight traffic by 33.6%. The number of passenger vehicles and freight trucks grew by 115.6% and 53.6%, respectively. Yet the length of the Chinese highway system increased only 8.7%. In civil aviation, the volume of passengers rose by 139.3%, while the number of Chinese commercial airplanes increased by 68.6%.

<sup>5</sup>Deng's Four Modernizations stress advances to be made in agriculture, science and technology, industry, and national defense. However, it is interesting that there never has been any mention of a "Fifth Modernization," referring to the development of transportation.

Chinese transportation sectors suffered an overall decline in 1995: Total freight traffic declined by 1.1% over the previous year, while passenger traffic dropped by 1.4%. However, cargo and passenger traffic in civil aviation rose by 21.8% and 26.8%, respectively. The shift to commercial aviation has led the central government to allocate more than \$1.1 billion for investment in airport infrastructure and technology renovation in 1996, an increase of 30% over 1995 levels.<sup>6</sup>

### *1996–2010: Insufficient Transportation May Hamper Economic Growth*

China's future growth will depend, in no small measure, upon the modernization of the transportation system. Central government planners need to recognize that the country's rising demand for goods and services cannot be met if the transportation infrastructure is not expanded and to the extent possible, market-based. If past indications are a guide, it would seem that Beijing will be unable to allocate a greater share of the central government budget to the expansion and development of China's current transportation facilities. This may force the provincial governments to increase their share of funding for certain transportation projects, and/or rely more on direct foreign investment strategies. Shortages and bottlenecks in the economy may well become worse as a result, and will have an adverse impact on economic growth.

The central government has arrived at a critical stage in promoting further economic reforms, privatizing state enterprises, and restructuring financial institutions in the transition to a more efficient "socialist market economy." How Chinese policymakers and economic planners decide what concrete steps they will need to take to successfully continue the reform process will inevitably have a great impact on the abilities of the transportation system to sustain that growth.

## CHINA'S TRANSPORTATION INFRASTRUCTURE IN THE 1990S:

### THE RAILWAY SECTOR

#### *Network and Infrastructure*

Although China's railway network has long been the object of modernization, it still lacks a modern and comprehensive transportation capability. It continues to experience shortcomings in connecting many areas through which the railways are built. This contributes strongly to the chronic underdevelopment of the hinterland provinces, and a stagnation in living standards. The PRC relied upon its limited network to transport nearly 54.4% of all freight and 42.3% of all passengers in 1994. Total turnover volume in railway traffic was over 1.2 trillion ton-km in freight transportation, and 363.6 billion person-km for passengers traveled in 1994, representing significant increases of nearly 17.3% and 39.2%, respectively (see Table 2). However, severe bottlenecks keep the railway system from accommodating the rapid increases in freight trans-

<sup>6</sup>See *Country Report: China-Mongolia, 1st Quarter 1996* (The Economist Intelligence Unit [EIU], London, UK., 1996), p. 29. Data cited from the *China Daily Business Weekly*.

port and passenger travel, and the situation probably will not improve substantially in the future (see Figure 3).<sup>7</sup>

### *Need for Greater Electrification*

By the end of 1994, the Ministry of Railways (MoR) had laid nearly 15,500km (9,700 miles) of double track and 9,000km (5,600 miles) of electrified railway, accounting for a combined 45.4% of the 54,000km (33,750 miles) of railways in operation.<sup>8</sup> Significantly, electrified railways account for only 16.7% of the total and less than one-fifth of the entire network electrified. China's distribution system frequently fails to deliver both freight and passengers on schedule. Diesel and coal are both cheaper fuel alternatives than access to electricity, since China has large gas and coal reserves but upgrading the railway system by electrification would require laying down more electrical wiring, and the construction of more power plants.

The central government hopes to expand electrification to 20,000km (12,500 miles) by the end of the century but this may prove difficult to implement for reasons of cost.<sup>9</sup> The MoR would have to average 2,750km (1,720 miles) annually until the year 2000, representing an increase of more than 100% over recent years, in order to accomplish this. Electrification has progressed "slower than expected because of the reluctance of the power ministry to commit supplies."<sup>10</sup> As in other transportation sectors, coordination between government agencies with overlapping jurisdictions has been difficult to achieve.

Due to the limited availability of power, in particular electricity, industries receive priority to fuel their growth and raise output. The problem with this, however, is that economic planners must also take into consideration the importance of *how* domestic industries are supplied, namely through the transportation system. Without a reliable and adequate supply, industrial production and efficiency suffer, and total output decreases. The dilemma faced by the central government to modernize the railway system through expansion of electrification, while maintaining high industrial output, will be a daunting task to accomplish within the Ninth Five-Year Plan (1996–2000). As a comparison, China laid down more than 1,000km (625 miles) of railway tracks at a cost of 10.4 billion *yuan* (\$1.2 billion in 1995 dollars) in 1992. The major portion of that cost is likely to have been spent on further electrification.

### *Recent Developments*

Much of the railway system and electrification has along China's three major routes: Beijing-Guangzhou, Beijing-Shanghai, and Beijing-Harbin. However, because of the high density in freight and passenger traffic as a result of the tremendous pace of economic development, the first two railway networks have been unable to cope with the increases in demand. A third north-south network was re-

<sup>7</sup> See *The China Business Review*, September-October 1994, p. 48.

<sup>8</sup> See *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995), p. 473. The MoR wants to expand the national railway network to 70,000km by the end of the century.

<sup>9</sup> See *China: Railroad*, Market Research Report ISA9307, Department of Commerce, International Trade Administration (ITA), March 21, 1995, p. 4.

<sup>10</sup> See *Financial Times*, June 27, 1996, p. V Survey.



TABLE 2. Selected Railway Transportation Data: Selected Years, 1952–1994.

Item	1952	1978	1990	1994	1952/1978 % Change	1978/1990 % Change	1990/1994 % Change
Length of Track (thousands of km)	22.9	48.6	53.4	54.0	112.2	9.9	1.1
Turnover Volume of Passenger Traffic (billion person-km)	20.1	109.3	261.3	363.6	443.8	139.1	39.2
Turnover Volume of Freight Traffic (billion ton-km) ....	60.2	534.5	1,062.2	1,245.8	787.9	98.7	17.3

Source: *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995).

quired to help alleviate the heavy transportation strain placed on the Beijing-Guangzhou and Beijing-Shanghai railway networks. Although Premier Li Peng urged the nation to pay greater attention to the expansion of the railway system in his presentation of the Ninth Five-Year Plan in early 1996 to the National People's Congress (NPC) and specifically outlined state plans to concentrate on the building of three new routes, there are not many indications that the central government is paying more than lip service to the pressing requirements of constructing a national and comprehensive railway network.<sup>11</sup>

One project that received a high priority during the Eighth Five-Year Plan (1990–1995) and was completed in early 1996 was the Beijing-Kowloon railway, which measures 2,500km (1,560 miles) and required the building of over 1,000 bridges and 150 tunnels. At Yn30 billion (\$3.4 billion [1995]) it is the largest and most expensive railway project in Chinese history. Construction began in 1993 with the objective to “improve China’s railway distribution, relieve the strain on north-south transportation, enhance efforts to tap resources in various localities and form a new economic development belt along the line.”<sup>12</sup> Beijing plans to extend the route to Hong Kong, once the British colony reverts back to Chinese sovereignty on July 1, 1997. The central government thus hopes to derive economic benefits from the development and expansion of the national railway infrastructure. Notably, a popular Chinese slogan is “The whistle of the train signals gold for the regions along the railway.”

Reality may turn out to be very different. New railway construction is expensive, and much of the financing is dependent upon loans from the World Bank, the Asian Development Bank (ADB), the Japanese Overseas Economic Cooperation Fund (OECF), and foreign investors. In order to maximize return on investment, the MoR has included developing adjacent real estate along railway routes to help pay for new construction, as well as the expansion of the railway network, but this may not prove to be a viable solution. Railways require large development and operating expendi-

<sup>11</sup> The three new railway routes are the Nanchang-Kunming, the southern Xinjiang, and the Shenmu-Huanghua railways. See *Beijing Review*, April 8–14, 1996. p. vi Documents.

<sup>12</sup> See *Beijing Review*, March 4–10, 1996. p. 15.

tures, and adding real estate to new construction would diminish both the rate-of-return and extend the cycle of repayment.

### *Streamlining Operations Key to Long-Term Efficiency*

Included in the Ninth Five-Year Plan to upgrade the country's railway network is the consolidation and downsizing of China's nearly 5,000 railway stations. The central government plans to close approximately one-third of its stations as part of the package intended to streamline railway operations, and make the system more efficient. The Ministry claims that many stations are overstaffed, and are not used frequently enough to justify their continued operation.<sup>13</sup> This assessment is also applied to freight stations that are "bottomless" buckets necessitating large infusions of state subsidies to keep them open. Many freight cars reportedly lie idle on the sidelines at railway stations, waiting to be transferred to their final destinations, representing a drain on the Ministry's resources. Because of high demand and the limited number of available locomotives, finished goods and other products arrive either too late or spoil before they reach the market, contributing to unnecessary additional costs being transferred to consumers.

China's current railway assets are not only insufficient to meet the demands of the market but more significantly, the Ministry must change its operating patterns. As in other transportation sectors, the strategy being followed is to gradually reform the way the state system operates, and transform it to profitability by making it largely independent of government subsidies. However, no plans currently exist to privatize the state-owned railway sector, and the MoR will retain ultimate control over all decisions. MoR restructuring efforts will force laying off thousands of state employees who have long come to rely upon the economic security and social stability provided to them through the benefits gained by working for a government agency. Efforts to accelerate the process of reform will most likely run against strong opposition from the provincial and municipal governments. Not surprisingly, central planners are proceeding slowly and with caution to minimize the social repercussions that could result from implementing such reforms.

One exception to the consolidation of railway stations has been the construction of the Beijing West Railway Station, which is intended to replace the old Beijing Railway Station at a cost of Yn4.3 billion (\$494 million [1995]).<sup>14</sup> Not only will the new station be able to handle a much higher volume of freight traffic but moreover will be able to accommodate between 250,000 and 600,000 passengers per day.<sup>15</sup> In contrast, the original Beijing Railway Station was built in the 1950s, and could only handle up to 30,000 passengers daily. Although expensive, the new station may be the model the central government has in mind: to replace the numerous smaller railway stations that are scattered across the country with regionally large, concentrated ones with much greater capacity to process increased traffic flows.

<sup>13</sup> See *Financial Times*, April 11, 1996. p. 5.

<sup>14</sup> See *China Daily*, January 22, 1996. p. 1.

<sup>15</sup> *Ibid.*, p. 1. Also see *Beijing Review*, March 4-10, 1996. p. 13.

### *Locomotives, Passenger Trains, and Freight Cars*

The limited availability of locomotives and train cars further compounds distribution problems. An interesting feature of China's railway system is that it still operates approximately 4,900 outdated and aging steam locomotives whose days are clearly numbered. The trend is to build and rely on locomotives powered by diesel and by electricity. China has large coal reserves, which makes it cheaper to rely on coal to power most of its locomotives. Because of the limited number of power plants available needed to generate electricity, electrically-powered locomotives will continue to operate in small numbers. However, despite the expensive investments required to increase electrification of the railway system, it may be in China's interest to build more power plants and the necessary infrastructure that can be used to supply the energy requirements of the Ministry. Although coal is far more abundant as a natural resource and therefore less expensive as the primary source of energy for locomotives, it nevertheless is at a disadvantage in that freight-carrying capacity is further restricted, due to the need to haul the energy supply.

China has roughly one-third more electrical engines than it does diesel locomotives. Making the switch to electrical power would substantially upgrade the quality of the railway system, and pay high dividends in the long-term if China is willing to make the proper investments. Building more power plants and setting up a nationwide electrical network for trains would improve China's ability to provide quick and reliable transportation, especially in the eastern remote provinces where there is little motorized transportation. However, due to limited funds available, it is more likely that the MoR will continue to rely on coal as the main source of energy to power its locomotives. By the end of 1994 the MoR was operating 7,800 diesel locomotives and close to 2,400 electric engines.<sup>16</sup> Passenger trains and freight cars accounted for 331,000 and 416,000 units, respectively.<sup>17</sup>

### *Major Shortcomings*

Three main factors limit the attractiveness of using China's railway system as a means of transportation for both freight and passenger purposes: (1) along most of China's railway network, train speeds are very slow by modern standards; (2) trains are rarely on schedule; and (3) carrying capacity is usually stretched beyond normal operating parameters.

Average speed for freight trains is under 32kph (20mph), and slightly above 48kph (30mph) for passenger traffic.<sup>18</sup> This is one factor that helps to explain the schedule delays that have become characteristic of the railway system. The Ministry plans to raise speeds for both freight and passenger trains well above the current limitations, especially along China's three major railway arteries where the majority of all railway traffic can be found. Currently, trains travel no faster than 112kph (70mph) on these routes but the MoR is anticipating speeds within the 144–160kph (90–

<sup>16</sup> See *Zhongguo Tongji Nianjian 1995* (Statistical Yearbook of China 1995), p. 473.

<sup>17</sup> *Ibid.*, p. 474.

<sup>18</sup> See *Journal of Commerce*, March 5, 1996. p. 3B.

100mph) range to cut travel time, and make the railway system more competitive vis-à-vis its transportation rivals. Because of its shortcomings, it has partially lost out to the civil aviation, highway, and waterway sectors. The Minister of Railways, Han Zhubin, concurs with that assessment, emphasizing the need to raise current speed limitations, especially "on the three major rail arteries across the country."<sup>19</sup> However, raising train speeds is only one of many factors that may improve the competitiveness of the railway system.

Although the Ministry has stated that improvements are expected to materialize "in the near future," the Chinese have typically taken much longer to implement changes than publicly acknowledged. Despite the MoR's Ninth Five-Year Plan to do so, realistic conditions point to a longer timetable. One study under way that aims to drastically reduce travel time between the capital and Shanghai proposes increasing speeds between 248 and 296kph (155-185mph).<sup>20</sup> This "Silver Bullet" project is expected to cost at least Yn39.2 billion (\$4.5 billion [1995]) if the project is to go forward, and is estimated to cut travel time between the two cities by ten hours.<sup>21</sup> However, developing this high-tech project from the design stage to full-scale production would require significant imports of technology and equipment from the West, which may be difficult for reasons of cost and political considerations. The greatest progress to date has been made along the Guangzhou-Shenzhen line where trains have been operating at speeds of up to 160kph (100mph) for over a year now, and plans to go beyond that limit are under active consideration.

Due to bureaucratic inefficiencies in the state-owned and -operated railway system, trains are frequently behind schedule, and are unreliable means of transportation. Businesses, for example, often complain that critical imports are held up for unnecessarily long periods of time, and that shipping export products to customers on schedule is a major problem. Furthermore, rail operators often insist upon waiting until all available cargo space has been filled up. As a result, the train may leave two or three days later than scheduled. Trains traveling along the three major railway arteries also frequently stop to unload cargo but wait again until their rail cars are fully reloaded before continuing on to their final destinations, leading to serious schedule delays.

Furthermore, passenger trains are usually filled beyond capacity. At the end of 1994, China's Ministry of Railways transported approximately one billion people. Between 1990 and 1994 passenger traffic increased by 13.1%, and travel is rapidly expanding.<sup>22</sup> An estimated 2,200 passenger trains handle close to 2.4 million people daily.<sup>23</sup> The current numbers of locomotives as well as passenger trains and freight cars are insufficient to meet the rising demand. This is due, in part, because the central government exclusively allocates 85% of all freight space for the transport of goods and raw materials designated strategic commodities, e.g., coal and grains;

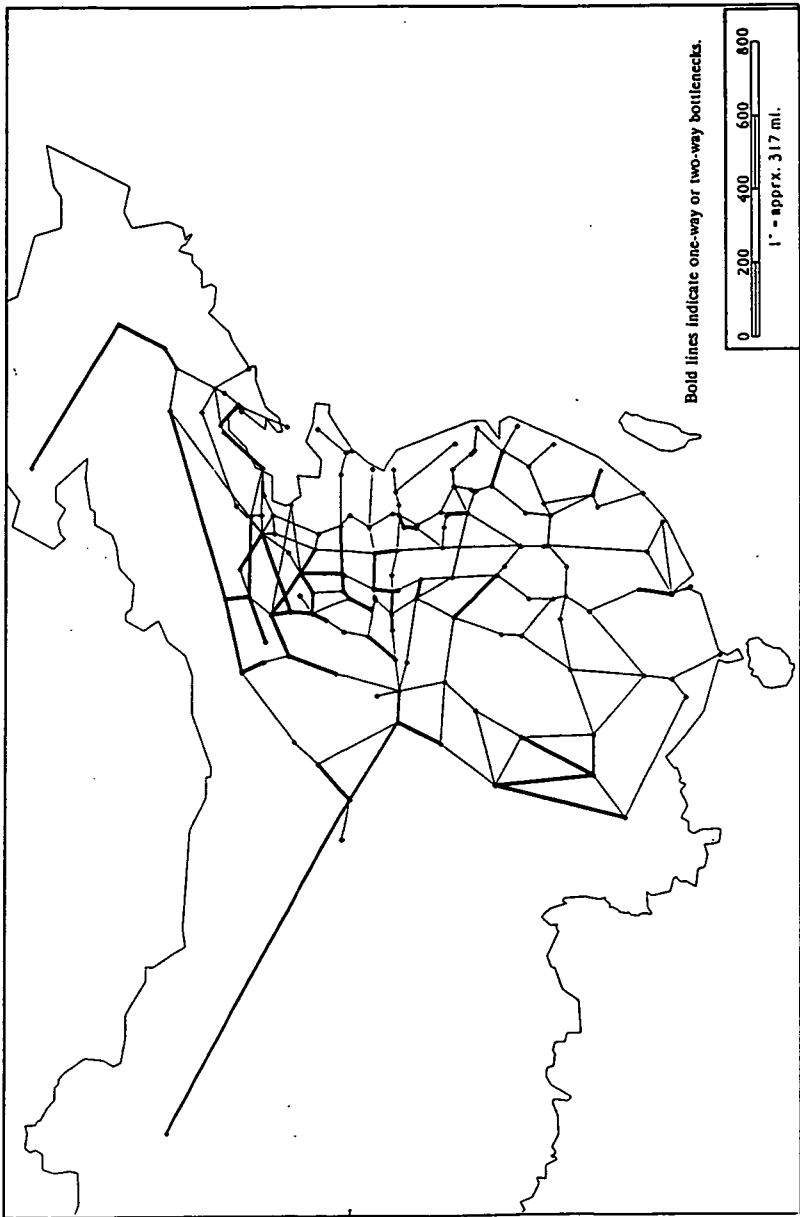
<sup>19</sup> See *China Daily*, February 2, 1996. p. 2.

<sup>20</sup> See *China Daily*, February 27, 1996. p. 4.

<sup>21</sup> See *China: Railroad*, Market Research Report ISA9307, Department of Commerce, International Trade Administration (ITA), March 21, 1995, p. 5.

<sup>22</sup> Based on authors' calculations.

<sup>23</sup> See *China Daily*, February 27, 1996. p. 4.

**Figure 3. Projected Railway Bottlenecks, High Demand (2000).**

Note: Lines depict China's railway network. Portions in bold indicate projected railway bottlenecks where demand is likely to exceed railway capacity in the year 2000.  
 Source: *China: Investment Strategies for China's Coal and Electricity Delivery System* (The World Bank, Transport Operations Division, China and Mongolia Department, East Asia and Pacific Regional Office, Washington, D.C., March 8, 1995, Report No. 12687-CHA), p. 10-7, Annex 10.

the remaining 15% is left to the private sector, which must reserve space two to four weeks in advance.<sup>24</sup>

## THE HIGHWAY SECTOR

### *Network and Infrastructure*

In many ways the development of China's highway sector parallels that of the railway system. As in the case of the latter, China does not possess a comprehensive network of highways, in part because it has not been a high priority to the central government. A lot of transportation is still facilitated through non-motorized means, e.g., the use of bicycles. For long-distance traveling, the Chinese have come to rely upon the railway system, despite the many difficulties associated with it. Furthermore, until 1978 there was relatively little economic activity under way that could justify building expansive road and highway networks. Trucks and motorcycles have also played a crucial role in securing domestic transportation. Despite increases in automobile production, the numbers of people and families who can afford them have been relatively few. However, in some areas car ownership is booming, and is no longer limited to military and government institutions.

The real problem that has hampered ownership of private vehicles—other than acquisition cost—is the overall lack of highway development, and expanding the network to connect all the provinces with each other. Furthermore, there are few highways; they are far apart where they exist; and they suffer from traffic congestion where cars and trucks share the roads with animals and people alike. Like the railway system, highway construction has been largely concentrated in the more developed provinces along the coastal regions. The challenge now must be to further develop high quality highways and expressways and most of all, build roads that connect the smaller townships and villages with major highways so that access throughout the inner provinces is greatly improved. An existing comprehensive network of highways and roads would help facilitate the development of adjacent land, and attract businesses to these remote areas.

*The China Business Review* notes that, "China's success in developing its infrastructure will depend in large part on its ability to attract foreign investment to finance key projects."<sup>25</sup> The Ministry of Communications (MoC), which is responsible for overseeing the development and construction of the national highway system, plans to link all of China's major and medium-sized cities with a modern highway system. At the end of 1994, the People's Republic had built approximately 1.1 million km of highway, an increase of almost 3.2% over the previous year (see Table 3). Overall, when compared with the growth rates of the railway system, China's highway network expanded at an average annual rate of 6.6% between 1952–1994; three times as much as the railway system over the same 42-year period.<sup>26</sup> However, most of the MoC's highways are of poor quality with only 6.4% of highways rated second-class

<sup>24</sup> This may also include foreign companies, joint ventures, and state enterprises subsidized by the central government.

<sup>25</sup> See *The China Business Review*, September-October 1994, p. 44.

<sup>26</sup> Based on authors' calculations.

and above. And another 24% are classified as being substandard.<sup>27</sup> About 1,500km were of high quality, of which approximately 30% were built in 1994.<sup>28</sup>

To illustrate the magnitude of just how much the distribution of cargo and other commodities depend upon the limited highway infrastructure, nearly 8.9 billion tons of all freight traffic were delivered using China's highway system in 1994, compared with just 1.6 billion tons for the railway system during the same year, five-and-a-half times the level of the latter. However, total freight traffic volume on China's highways topped only 448.6 billion ton-km in 1994, a -63.9% difference when compared with the total freight traffic volume on the railway system during the same year. Total passenger traffic volume on China's highways was 422 billion person-km in 1994, an increase of 16% over the railway system during the same year (see Tables 2 and 3).<sup>29</sup>

TABLE 3. Selected Highway Transportation Data: Selected Years, 1952-1994.

Item	1952	1978	1990	1994	1952/1978 % Change	1978/1990 % Change	1990/1994 % Change
Highways (thousands of km)	126.7	890.2	1,028.3	1,117.8	602.6	15.5	8.7
Turnover Volume of Passenger Traffic (billion person-km)	2.3	52.1	262.0	422.0	2,165.2	402.9	61.1
Turnover Volume of Freight Traffic (billion-ton km) ....	1.4	27.4	335.8	448.6	1,857.1	1,125.5	33.6
Passenger Vehicles (thousands) .....	NA	259.0	1,621.9	3,497.4	NA	526.2	115.6
Freight Trucks (thousands) .....	NA	1,001.7	3,684.8	5,603.3	NA	267.9	52.1

Source: *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995).

### Recent Developments

The MoC plans to construct four highway routes to be completed by the beginning of the next century: two which will run in an east-west direction (the Shanghai-Chengdu and Korgas-Lianyugang highways), and two in a north-south direction (the Beijing-Macao and Tongjiang-Sanya routes).<sup>30</sup> Total cost is estimated at over Yn452.4 billion (\$52 billion [1995]) through the year 2000. The highways are furthermore slated to be expanded, which will substantially increase their overall costs.

Over the next 30 years, the MoC plans to develop an integrated network of interlocking highways that will be able to accommodate high-speed, heavy traffic transport. The "National Trunk Highway System" will require the construction of 12 additional highways

<sup>27</sup> See *China: Highway Construction*, Market Research Report ISA9504, Department of Commerce, International Trade Administration (ITA), June 14, 1995, p. 4.

<sup>28</sup> *Ibid.*, p. 3.

<sup>29</sup> Based on authors' calculations.

<sup>30</sup> See *The China Business Review*, September-October 1994, p. 49.

covering a distance of 30,000–35,000km (18,750–21,880 miles).<sup>31</sup> The network will comprise highways of second-grade and above, aimed at linking all of China's major cities. The trunk system will serve as the backbone in the national highway network, connecting together most of the country's roads. As in the case of the railway system, much of the financing needed to fund these projects is expected to come through multilateral loan and foreign export credit programs, as well as direct foreign investment. In order to recover the return on investments in infrastructure development, toll roads will be set up. Additional sources of income are to be generated through the development of adjacent land surrounding the highways.<sup>32</sup> Unlike other infrastructure projects, there is no limit set by the central government on the rate of return of profits. China is also currently building many new roads, and expanding the road network to connect most of its smaller towns and villages in the interior provinces. By the end of 1993, China's road construction programs managed to connect approximately 97% of the country's towns and 78% of all villages.<sup>33</sup>

The Chinese government has designated the automotive sector a "pillar industry," and expects it to fuel economic growth by creating new jobs and using technology and manufacturing skills acquired through joint ventures to build up its domestic automotive capability. In 1993 the central government created the Automotive Industry Bureau (AIB) within the Ministry of Machinery Industry (MMI) to replace the China National Automotive Industry Corporation (CNAIC) in an effort to coordinate the activities of China's automotive industry. According to industry guidelines made available in June 1994, the central government pledged not only vital political and financial support, but also made it clear that the automotive industry would be "protected from dominance by foreign automotive companies."<sup>34</sup>

### *Booming Automobile Production*

Recent statistics show that China's domestic production of automotive vehicles has been growing at a rate of 17% annually since economic reforms were first introduced in 1979. Production in 1994 topped 1.4 million motor vehicles, an increase of nearly 7.7% over the previous year.<sup>35</sup> Of that number, China produced 250,000 cars, up 6.8% over 1993.<sup>36</sup> While GDP in both of those years exceeded 10%, the higher rate of growth in the automotive sector underscores the heavy demand in the market. However, domestic production has been unable to meet the rising demand for passenger sedans, and thus imports of entirely foreign-built cars continue to bridge some of the existing gap. Because of the special status it has been accorded by the central government, Beijing has prevented

<sup>31</sup> *Ibid.*, p. 49. Also see *China: Highway Construction*, Market Research Report ISA9504, Department of Commerce, International Trade Administration (ITA), June 14, 1995, p. 1.

<sup>32</sup> This has been mainly done in Guangdong province where Hong Kong firms have been contracted to finance development of new construction projects.

<sup>33</sup> See *China: Highway Construction*, Market Research Report ISA9504, Department of Commerce, International Trade Administration (ITA), June 14, 1995, p. 3.

<sup>34</sup> See *China: Auto Industry Overview*, Market Research Report IMI960112, Department of Commerce, International Trade Administration (ITA), January 16, 1996, p. 2.

<sup>35</sup> Based on authors' calculations. Data based on *Beijing Review*, December 12–18, 1994, p. 11, and *Beijing Review*, November 6–12, 1995, p. 16.

<sup>36</sup> *Ibid.*, p. 16.



the market from exercising its "invisible hand" too far, imposing strict controls on import quantities in 1994 and 1995.<sup>37</sup>

TABLE 4. GNP per Capita (1991) and Real Income Growth by Chinese Province, Selected Years, 1985–1991.

(in 1991 U.S. Dollars)

Province	1991 Real Income	1985–1991 % Increase	Province	1991 Real Income	1985–1991 % Increase
Heilongjiang .....	\$385	52%	Yunnan .....	\$215	108%
Jilin .....	\$317	44%	Guizhou .....	\$164	55%
Liaoning .....	\$505	38%	Guangxi .....	\$197	82%
Nei Mongol .....	\$276	56%	Guangdong .....	\$519	108%
Beijing (Hebei) ..	\$959	66%	Hunan .....	\$238	50%
Hebei .....	\$290	66%	Hubei .....	\$293	30%
Shanxi .....	\$275	27%	Henan .....	\$213	57%
Shaanxi .....	\$241	68%	Shandong .....	\$344	78%
Ningxia .....	\$264	66%	Jiangsu .....	\$399	49%
Gansu .....	\$210	55%	Anhui .....	\$196	20%
Qinghai .....	\$300	48%	Shanghai .....	\$1,202	N.A.
Xinjiang .....	\$377	116%	Zhejiang .....	\$440	67%
Tibet .....	\$254	39%	Jiangxi .....	\$224	59%
Sichuan .....	\$221	50%	Fujian .....	\$340	112%

Source: Swaine, Michael D., *China: Domestic Change and Foreign Policy* (RAND Corp., National Defense Research Institute (NDRI), Santa Monica, CA, 1995, MR-604-05D), pp. 66–67.

In 1987 the central government decided to shift its focus from producing trucks to manufacturing cars as part of China's economic modernization strategy. In 1979 there were only 150,000 cars in the country; 14 years later that figure had increased by a factor of nine to 1.4 million automobiles in use.<sup>38</sup> China's rapidly growing economy is beginning to benefit an ever-growing middle class estimated as large as 300 million, which will likely be able to afford the purchase of personal vehicles in the near future. Although private automobiles are still a rarity in China—in 1993 there were only 50,000 vehicles registered to private individuals and families—government analyses show a high likelihood that between 4.0–4.7 million families will be able to afford their own cars by the year 2010. A decade later, that number could grow to 37.5–40.5 million Chinese families.<sup>39</sup> However, even before the year 2010 economic and demographic studies point to the possibility that "a large number of families living in certain well-developed areas with a population of about 300 million will have cars. . . ." (see Table 4).<sup>40</sup>

<sup>37</sup> *Ibid.*, p. 2.

<sup>38</sup> See *Beijing Review*, December 12–18, 1994. p. 11.

<sup>39</sup> *Ibid.*, p. 11.

<sup>40</sup> *Ibid.*, p. 11. Despite lower real incomes, it is important to remember that the Chinese yuan goes a lot further in buying goods and services than the dollar does in the United States. So the possibility of a burgeoning middle class, composed of 300 million who could afford the purchase of a personal vehicle in the not-to-distant future, is not unthinkable.

### *China's Plans for a "Family Car"*

The central government's long-term objective is to design and manufacture a complete sedan made entirely in China using no imported components and parts. The Automotive Industry Bureau has been given the task of designing a "family car" suitable for the domestic market, as well as for potential *export*. The central government envisions developing cars with "small engine displacements," somewhere in the range of 1.0–1.3 liters.<sup>41</sup> Given the projections for large increases in auto production in the future, undertaking the development of cars with small engine displacements is a step in the right direction. However, whether or not such a car could compete in the world market is somewhat questionable, unless these cars are targeted at other Third World markets, e.g., India where there are similar conditions in population density and lower income levels. Currently, about 80% of all sedans in China have displacements of at least 1.8 liters. However, the central government has targeted a ratio of 7:3 between small cars and mini-cars with displacements of over 1.6 liters, and medium-size to large sedans with displacements of at least 1.6 liters by the year 2010.<sup>42</sup> Large passenger sedans may thus have a more difficult marketing position in China vis-à-vis smaller cars.

#### THE CIVIL AVIATION SECTOR

##### *Network and Infrastructure*

Only in recent years has China's central government made the expansion and modernization of the civil aviation sector a high priority. Since the opening of China to the West in 1979, the central government has largely concentrated on acquiring modern passenger airplanes, and on upgrading its few major airports. In 1986, however, Beijing began to deregulate the civil aviation sector by divesting the General Administration of Civil Aviation of China (CAAC) of its operating divisions. The CAAC had, up until then, exercised complete control over the airline industry and held responsibility over the operations of all of China's airlines, as well as over airports and facilities. The rationale was to encourage the formation of private airlines and companies, and raise the standards for operating efficiency. Since the break-up of the aviation monopoly, 12 airline companies have taken over the original CAAC fleet, and 14 additional airlines have formed.<sup>43</sup> The agency is now a regulating body with oversight responsibilities, rather than an organization exercising operational management. However, the Administration still has the ultimate authority to conclude all commercial airplane acquisitions destined for Chinese airlines.

##### *Lack of Adequate Infrastructure and Overwhelming Demand*

High economic growth rates coupled with rising incomes have enabled ordinary Chinese to take advantage of air travel, and "average passenger traffic grew almost 21.5 percent yearly between 1983–93. . . ."<sup>44</sup> However, despite many recent improvements in

<sup>41</sup> See *Beijing Review*, December 12–18, 1995. p. 12.

<sup>42</sup> *Ibid.*, p. 12.

<sup>43</sup> See *The China Business Review*, July–August 1995. pp. 9–10.

<sup>44</sup> *Ibid.*, p. 9.

airport infrastructure, real aviation modernization continues to elude China due to three major factors: (1) the lack of any long-term integrated plan; (2) little coordination between the Civil Aviation Administration of China and the People's Liberation Army Air Force (PLAAF); and (3) lack of adequate funding, and concerns to keep thousands of workers employed.

While China's large-scale purchases of modern Boeing, McDonnell Douglas, and Airbus Industries airplanes have caught the attention of many industry analysts, the country's 127 airports have long suffered from neglect. As in other transportation sectors, airport capacity to meet the rapidly increasing civil aviation requirements has been overtaken by overwhelming demand in the last decade. Beijing Capitol Airport, for example, was completed during the early 1980s before the full impact of Deng's economic reforms took place. The airport's capacity was originally designed to process five million passengers annually but currently is forced to handle 12–15 million instead. Work on a new terminal at Beijing airport has already begun, which will be capable of accommodating up to 30 million passengers annually when it becomes operational in 1999. Construction is set to cost Yn7.0–8.0 billion (\$804.6–919.5 million [1995]).<sup>45</sup> Shanghai airport is experiencing much of the same problem where the number of passengers has increased by nearly 20% annually.<sup>46</sup> Average annual passenger traffic in China is expected to grow by 10% over the next two decades, making the construction of expanded and new airport facilities an urgent necessity to cope with the expected demand.<sup>47</sup>

In 1994 the CAAC registered total turnover volume in passenger traffic of nearly 55.6 billion passenger-kilometers (34.5 billion passenger-miles), and total turnover volume in freight traffic of nearly 1.9 billion ton-kilometers (1.2 billion ton-miles), representing increases of almost 15.5% and 11.8%, respectively, over the previous year.<sup>48</sup> In order to cope with the expected increases, Li Zhao, China's vice-minister of civil aviation, announced earlier this year the central government's intention to "reconstruct" 40 of the country's airports, which will cost an estimated Yn73 billion (\$8.4 billion [1995]) over the next five years.<sup>49</sup> The central government has stated it will subsidize a third of the cost, while the remainder is to be financed by provincial and municipal governments and foreign investors. The CAAC has allocated Yn9.0 billion (one billion dollars [1995]) for the improvement of airport facilities this year.<sup>50</sup> However, whether or not all of China's ambitious construction plans can and will be implemented remains open to question.

### *Outdated Air Traffic Control and Management Deficiencies*

Despite the vast sums being poured into new airport developments, China nevertheless suffers from the lack of a comprehensive civil navigation system, not to mention the lack of a modern air traffic control network, much of what exists is 1950s technology, at

<sup>45</sup> See *Financial Times*, April 2, 1996, p. 14.

<sup>46</sup> See *Financial Times*, January 31, 1996, p. 7.

<sup>47</sup> The fact that only 62 of China's 127 airports can accommodate airplanes the size of Boeing B737s and larger is illustrative of the shortcomings of airport infrastructure.

<sup>48</sup> Based on authors' calculations. Also known as Revenue-Passenger-Miles (RPMs).

<sup>49</sup> See *Financial Times*, April 2, 1996, p. 14.

<sup>50</sup> See *Financial Times*, January 31, 1996, p. 7.

best. The following examples help to illustrate just how inadequate the present network is. Most Chinese airports possess no on-route system to guide airplanes to airports, and pilots therefore cannot deviate from their flight paths. There are exceptions, though, such as in the case of Beijing airport, which is being upgraded with a range radar system built by Raytheon Corporation with a detection capability of 150 miles.<sup>51</sup> The system was scheduled to be operational by May of 1996. Shanghai airport is also receiving its own modern radar system from Loral.

A major problem in conducting effective air traffic control is its joint management by CAAC and PLAAF controllers. There is little cooperation between the two organizations, and authority ultimately rests in the hands of the PLAAF, which controls most of the airspace. The exchange of flight information between civilian and military personnel is minimal, which can have serious implications for the safety of incoming and outgoing commercial flights. According to U.S. International Trade Administration (ITA) officials from the Department of Commerce, the military is seen as the largest obstacle towards progress in developing an effective air traffic control system.

Because of restrictive Chinese flight regulations, civilian pilots are not allowed to deviate from their flight plan and must fly their airplanes through weather hazards, compromising flight safety. Furthermore, airport controllers do not keep track of the airplane once it is out of sight. There is no radio contact, and pilots often find they must rely upon their on-board navigation systems when flying from destination to destination. The commercial jetliner is allotted a specific flight corridor surrounded by military airspace. PLAAF pilots do not manage to average much flying time—less than one hundred hours a year<sup>52</sup>—which may be a reason for the military to be suspicious of aircraft flying in and out of their airspace.<sup>53</sup>

The military's "need to know" is at the root of the problem. U.S. officials and company representatives have, on more than one occasion, proposed building a network of Global Positioning System (GPS) receivers as part of modernizing the country's civil navigation system to their Chinese counterparts, and government officials recognize its benefits.<sup>54</sup> However, they are equally concerned that the U.S. could cut-off the usage of the GPS network during a crisis in Sino-U.S. relations, or a potential Chinese military operation.

<sup>51</sup> Much of the following information is based on an interview conducted with U.S. ITA officials, May 20, 1996.

<sup>52</sup> See Allen, Kenneth W., Krume, Glenn, and Pollack, Jonathan D., *China's Air Force Enters the 21st Century* (RAND Corporation, Santa Monica, CA, 1995, MR-580-AF) "PLAAF pilots do not fly as many hours as their Western counterparts. For example, bomber pilots fly an average of 80 hours per year; fighter pilots fly 100 to 110 hours; and A-5 ground attack pilots fly up to 150 hours." (p. 130)

<sup>53</sup> The Chinese air force claims to have opened 71 airports, and to have made available over 460 air routes used exclusively by the PLAAF to airlines. See *China Daily*, January 20, 1996. p. 2.

<sup>54</sup> GPS is a system of satellites originally designed for use by the U.S. military to accurately pinpoint the location of targets, its troops, tanks, ships, and aircraft. Because of its success, the Department of Defense has also made GPS available for civilian and commercial purposes in recent years. Anyone with a GPS receiver can take advantage of the network's capabilities, and it has been widely used in rescue operations at sea, guided mountain climbers, and help aircraft precisely locate their positions. For more background information, see Turner, David A. and Smith, Marcia S., *GPS: Satellite Navigation and Positioning and the DOD's Navstar Global Positioning System*, CRS Report 94-171 SPR, February 15, 1994.

GPS therefore has national defense implications, and any desire CAAC officials may have of acquiring such a system for the benefit of upgrading the outdated civil navigation system is overridden by considerations of the military.

In part because of the many shortcomings in airport infrastructure and the lack of a modern air traffic control network to monitor airspace, Chinese airlines have suffered from numerous problems resulting in poor flight safety records, especially during the 1992–1994 period when a number of crashes (the highest in the world) highlighted the need for stricter operating procedures, increased safety inspections, and closer attention to the maintenance of the airplanes. Over the last year-and-a-half, the CAAC has introduced a number of measures designed to rectify existing problems, which have improved China's safety record.

TABLE 5. Selected Civil Aviation Transportation Data: Selected Years, 1952–1994.

Item	1952	1978	1990	1994	1952/1978 % Change	1978/1990 % Change	1990/1994 % Increase
Number of Chinese Commercial Airplanes	NA	NA	404	681	NA	NA	68.6
Turnover Volume of Passenger Traffic (100 million person-km).	0.2	27.9	230.5	551.6	13,850.0	726.2	139.3

NA = Not available.

Source: *Zhongguo Tongji Nianjian* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995).

### *Airline Fleet*

By the end of 1994, China's airlines were operating a total of 681 commercial jetliners, 27% of which were Boeing aircraft (see Table 5). With 108 B737s in its inventory, the small Boeing airplane is the most common commercial jetliner in operation with Chinese airlines. Another 5.6% were McDonnell Douglas (MDD) MD-82 trunkliners, and Airbus Industries A310s accounted for 0.4% of the Chinese fleet. The remainder consists of British and mostly outdated Russian airplanes.<sup>55</sup> China has, in the meantime, developed into a major market for U.S. aerospace companies, in particular to the Boeing Commercial Airplane Group and MDD, and is expected to be so for many decades to come. Most recently, Boeing has been negotiating the sale of 10 of its new B777s, five B747-400s, and 15 more B737s to the CAAC.<sup>56</sup> Company estimates published by Boeing forecast Chinese domestic air travel to increase 14% over the next decade.<sup>57</sup> New aircraft purchases in large numbers are therefore likely to continue in the decades ahead.

<sup>55</sup> See *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995), p. 486.

<sup>56</sup> See *Financial Times*, April 9, 1996, p. 4.

<sup>57</sup> See *1996 Current Market Outlook: World Market Demand and Airplane Supply Requirements*, The Boeing Commercial Airplane Group, Marketing, Seattle, WA., March 1996, p. 10.

Revenue-passenger-miles (RPMs), the number of passengers multiplied by the miles flown, are projected to reach nearly 300 billion RPMs by 2015, a 12-fold increase over 1994.<sup>58</sup> In 1985 Chinese airlines flew 79.7% of all passengers along domestic routes. At the end of 1994 this figure rose only slightly to 85%. However, the number of passengers increased dramatically from 7.5 million in 1985 to 40.4 million in 1994, an increase of roughly 540%. Much of the same can be said of air freight. In 1985 Chinese airlines delivered 68.8% of all freight along domestic routes. In 1994 the percentage actually decreased slightly to 68%. However, total air freight expressed in tonnage increased from 2.0 billion tons in 1985 to 8.3 billion tons in 1994, over four times as much.<sup>59</sup> Total turnover volume of passenger traffic was 551.6 million person-km in 1994, representing an increase of 139.3% from 1990 (see Table 5). This growth helps to illustrate the magnitude and potential size of the Chinese aviation market.

### *Developing Domestic Aviation Capabilities*

China wants to obtain state-of-the-art airplanes, technology, and equipment but the central government generally lacks the resources necessary to meet the country's air transportation requirements. China's strategy is to obtain funding from international financial institutions, e.g., the World Bank, and to require foreign firms to shift a certain level of commercial airplane production to the PRC. Officially, the position of the Chinese aerospace industry is to manufacture components where it can take advantage of lower labor costs, and draw from a much larger pool of workers than Western companies can.

However, it remains unclear, whether or not the Chinese will remain content with manufacturing purely *low-tech* components intended for usage in foreign commercial airplanes that they will wind up buying in the end. With more joint ventures under way and as Chinese workers gradually master the technical processes required to produce high-technology parts, they may want to receive not only a greater share in the production of airplane parts (e.g., stabilizers) but may desire the more challenging tasks of co-producing the front end of medium-size and large commercial airplanes, or parts of wings that are more challenging to produce and involve high-tech production processes. Boeing's chief international strategist notes that "Boeing over the years has jealously guarded its critical technologies and core competencies. While we may agree to transfer some technology, we better have something in the works that is better."<sup>60</sup>

This raises important questions concerning *how much* and specifically, *what types* of technologies U.S. companies should share with the Chinese, and whether or not China has the potential to become a competitor in the commercial aviation market. Generally-speaking, all companies are reluctant to pass on technologies and production capabilities that may result in advancing the growth of

<sup>58</sup> See *Financial Times*, April 12, 1996, p.6. This information is not reconcilable with data from the State Statistical Bureau of the People's Republic of China, which would project approximately 414 billion RPMs in 2015. The relevant point, though, is that RPMs are likely to increase dramatically.

<sup>59</sup> Based on authors' calculations.

<sup>60</sup> See *The Seattle Times*, May 26, 1996, p. A13.

a likely competitor. In China's case, however, it may be necessary to think about the possibility that valuable contracts could be lost to the Europeans, if the United States fears sharing certain production processes and/or specific equipment with dual applications with the Chinese. These concerns focus on control of the end-uses and the diversion of technologies for purposes not intended, e.g., use in building up China's military aerospace capabilities.<sup>61</sup>

History has a very important place in the Chinese psyche, and teaches that the PRC should be self-sufficient, and not rely on foreign nations that do not always have China's best interests in mind. Therefore, contrary to official government policy, the long-term objective of producing commercial airplanes for domestic use and export, is not unlikely, although it would take decades for China to be in a competitive position. That the central government has become more demanding in terms of the sales contracts it signs, insisting upon co-production and/or offset agreements is consistent with this perspective.<sup>62</sup>

### THE WATERWAY SECTOR

#### *Network and Infrastructure*

On October 9, 1995, Vice-Premier Zou Jiahua announced the central government's intention to accelerate the construction of "a comprehensive, inland water transportation network" at a major conference on inland navigation.<sup>63</sup> As part of that plan, the Ministry of Communications (MoC) and the Ministry of Water Resources (MWR) have given priority to the expansion of four primary inland navigation channels: the Beijing-Hangzhou Canal, the Huaihe River connecting north and south China, the Yangtze River and its main tributaries in central China, the Xijiang River and its tributaries in southern China, and the Heilongjiang and Songhuajiang rivers in northeast China. By the end of 1994 the PRC had nearly 110,600 km (69,125 miles) of navigable inland waterways, a minuscule increase of 0.38% over the previous year.<sup>64</sup> However, from 1952–1994 the length of navigable inland waterways actually decreased overall. China's three main river systems are the Yangtze, the Yellow, and the Amur River in the north. Only belatedly has the central government shifted more attention to the development of the waterway sector, and it is probably still the least-developed mode of all transportation sectors. While coastal shipping has played an important role it too needs modernization and integration.

This is due to a number of factors: most of China's transportation bottlenecks occur inland and in large cities where poor road conditions and the lack of adequate airport facilities prevent the timely distribution of finished goods and other commodities. Over the four past decades the eastern and southern provinces have developed processing industries, whereas in the central and western areas the

<sup>61</sup> See *Far Eastern Economic Review*, February 8, 1996, p. 14–16. Also see *Washington Post*, April 29, 1996, p. A15.

<sup>62</sup> See *Flight International*, January 25–31, 1995, p. 28. McDonnell Douglas, for example, has transferred more production technology to China than either Boeing or Airbus, amounting to 87 million pages (7,000 tons) of technical data as part of MDD's co-production of MD-82 trunkliners with the Shanghai Aviation Industrial Corporation (SAIC).

<sup>63</sup> See *Beijing Review*, October 30–November 5, 1995, p. 7.

<sup>64</sup> Based on authors' calculations.

exploitation of natural resources has become the major source of income. Prices for processed goods have greatly increased over the last 15 years, in contrast to natural resources, e.g., coal, natural gas, petroleum, tungsten, and manganese. In addition, the economy in central and western China is widely dispersed, resulting in duplication and inefficiencies; and the level of technology is antiquated. Productivity is half the national level.<sup>65</sup>

### *Smallest Carrier of Freight*

These factors are reinforced by the relatively small percentage of all freight and passenger traffic that is moved across inland waterways. In 1994, for example, 1.1 billion tons of freight were ferried across inland waterways. This compares with 1.6 billion tons transported through the railway network, and 8.9 billion tons for the highway system during the same year, respectively. Between 1952 and 1994 total freight traffic volume along China's inland waterway system has progressively decreased (see Table 6). However, the average distance that freight and other cargo were transported using the waterway system in 1994 was nearly 1,470km (920 miles), approximately 1.9 and 29.4 times as much as using the railway and highway systems, respectively. Civil aviation combines the advantage of speed with traversing great distances in short periods of time, and commercial air transports traversed nearly the same distance of all the other transportation modes combined at 2,240km (1,400 miles) during the same year.

Furthermore, only 261.6 million passengers traveled the waterway system in 1994, contrasted with the nearly 1.1 billion and 9.5 billion people who used the railway and highway systems, roughly 4.2 and 36 times as much traffic, respectively.<sup>66</sup> Jiangsu, Zhejiang, and Guangdong provinces accounted for the highest freight traffic delivered across inland waterways in China, amounting close to 192.3 million, 107.1 million, and 159.5 million tons in 1994, respectively. But all other provinces transport freight measured in the tens of millions of tons and below. Despite the efforts being made to make better usage of the waterway system, other transportation sectors have enjoyed greater competitive advantages, allowing their projects to receive higher priority and increased funding. Consequently, the development and expansion of inland port facilities has been largely ignored.

In addition, much of China's industry is concentrated in the eastern and southern parts of the country where the infrastructure of alternative methods of transportation is better developed and easier to access. However, one of the continuing goals of the central government is to "even out" the standard-of-living for all of its citizens. Much of the farming population lives in the interior, and has missed out on the benefits of China's unprecedented economic growth. In order to prevent mass migration to the cities and stave off social unrest, central planners want to capitalize on the coun-

<sup>65</sup> See *China Daily*, February 6, 1996, p. 4.

<sup>66</sup> See *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995), pp. 468-469.



try's three natural water arteries to direct more of the economic growth westward, and spread modernization more equally.<sup>67</sup>

TABLE 6. Domestic Waterway Freight Traffic Data: Selected Years, 1952–1994.

Freight Traffic	1952	1978	1990	1994	1952/1978 % Change	1978/1990 % Change	1990/1994 % Change
Domestic Waterway (billion ton-km) .....	11.8	129.2	345.1	533.4	994.9	167.1	35.3

Source: *Zhongguo Tongji Nianjian 1995* (State Statistical Bureau of the People's Republic of China, Beijing, PRC, 1995).

### Recent Developments

One of the areas in which Chinese engineers are planning to better facilitate transportation is along the Yellow River in north-central China. The 867-kilometer Shuotian Canal project will be built to better accommodate the shipping of coal within inland ports. The Canal, which will flow from Ningxia to Tianjin, is expected to resolve the difficulty of shipping natural resources and other energy-related commodities from the provinces of Shanxi and Shaanxi and Ningxia and Nei Mongol (Inner Mongolia) autonomous regions to industrial centers for further processing.<sup>68</sup> The Canal would also help to ease water shortages in Beijing, Tianjin, and the northern regions of Hebei and Shanxi provinces by channeling and storing floodwater from the Yellow River. The project thus has great social, economic, and ecological significance. Communications between the inland and coastal regions would also benefit from the operation of such a canal. The Yellow River will be the main water source. Currently, scientists and engineers from the Chinese Academy of Sciences (CAS) and the ministries of water resources and communications are working together to resolve a number of problems in constructing the proposed canal. Aggregate investment is expected to top Yn34.5 billion (\$3.9 billion [1995]).

Furthermore, the MoC plans to construct China's first international shipping center in Shanghai, the largest port city in the PRC. The city at the mouth of the Yangtze has historically been the economic, trade, and financial center of China and according to Premier Li Peng, Shanghai will continue to experience massive construction to restore it to its original greatness. Huang Zhendong, Minister of Communications (MoC), cites the advantages expected to be gained from the massive development: "The efforts are expected to alleviate the pressure on China's road and waterway transport sector, which has long hindered national economic development."<sup>69</sup> New projects will benefit the Pudong New Area and the Yangtze River Economic Belt. Additional ports are scheduled to be built in the neighboring provinces of Jiangsu and Zhejiang. The MoC is also looking to manufacture over 200 medium

<sup>67</sup> In most of the coastal regions, over 60% of the people are engaged in non-agricultural activities; whereas in the lesser-developed inland provinces at least 75% tend to farming-related activities.

<sup>68</sup> See *China Daily*, February 27, 1996, p. 1.

<sup>69</sup> *Ibid.*, p. 1.

and large berths for coal, container, and raw materials, adding a handling capacity of 300 million tons.

Substantial investments are also planned to be made in Guangdong province to accelerate port construction in the Pearl River Delta, according to the Ninth Five-Year Plan. Total handling capacity will be increased nearly three times 1996 levels, from 150 million to 420 million tons by the turn of the next century, expanding the province's already significant capabilities to engage in greater international trade.<sup>70</sup> Currently, there are more than 130 ports situated in the Pearl River Delta. Over the next five years, approximately 39 new ports are slated for construction, with a total of 154 berths. Guangzhou Harbor is the third-largest port in China, and the largest in Guangdong province. Despite processing more than 70 million tons of freight and four million travelers in 1994, the harbor is unable to meet rising demand. For example, only 34 of the 700 existing berths can accommodate 10,000-ton vessels. Plans to dredge the water depth of Guangzhou Harbor to 15 meters (45 feet) will allow vessels up to 50,000 tons to use the port facilities. By 2015, annual harbor capacity is estimated to top 100 million tons.<sup>71</sup>

Besides the Beijing-Hangzhou Grand Canal, the development of the Yangtze River and the Xijiang River in southern China has been made high priorities in the Ninth Five-Year Plan. The Ministry has also set itself the ambitious tasks of overhauling more than 2,400km (1,500 miles) of waterways, and building an additional 160 berths with an annual handling capacity of 42 million tons by the end of the century. At the end of 1994, China was operating nearly 1,300 berths. However, only 82.4% were of "productive use."<sup>72</sup>

### *Cargo Barges and Shipbuilding Industry*

China's merchant marine consists of about 1,500 ships of which the majority are freight carriers.<sup>73</sup> China had nearly 293,500 motor vessels and 60,000 cargo barges in operation at the end of 1994. Another approximately 200,000 motor vessels and 7,400 barges were privately-owned, which were also used for cargo-carrying purposes. Freight vessels shipped nearly 3.2 million tons in 1994, an increase of almost 3.6% over the previous year but still far short of the growth rates in other transportation sectors.<sup>74</sup> Most of all freight was handled through China's largest port city and main shipping hub, Shanghai. Whereas in 1978 Shanghai processed close to 80 million tons of cargo, by the end of 1994 that figure had climbed to nearly 166 million tons, representing an increase of well over 100%. Total freight handled at China's principal seaports registered 743.7 million tons in 1994.

<sup>70</sup> See *Beijing Review*, January 29-February 4, 1996. p.25. Also see *Financial Times*, February 22, 1996. p. 4.

<sup>71</sup> See *Beijing Review*, January 29-February 4, 1996. p. 25.

<sup>72</sup> Based on author's calculations.

<sup>73</sup> China's merchant marine is comprised of 25 passenger-cargo ships; 819 cargo vessels; 17 refrigerated cargo vessels; 85 container ships; 21 roll-on/roll-off cargo ships; 1 multi-function/ barge carrier; 192 oil tankers; 13 chemical tankers; 285 bulk freight-carrying ships; 4 liquefied gas vessels; 2 vehicle carriers; 9 combination bulk vessels; and 1 barge carrier in 1994. The 67 other vessels are passenger carriers. Data based on *The World Factbook 1994* (Central Intelligence Agency [CIA], Washington, D.C., 1994), p.85.

<sup>74</sup> Based on authors' calculations.

China is also quickly developing a modern shipbuilding industry to cope with rapidly increasing demand. Its 26 shipyards currently have an annual manufacturing capacity of over one million tons. The China State Shipbuilding Corporation (CSSC), which oversees the construction and export of ships, received orders for a total of 1.4 million tons in 1994, an increase of 40% over the previous year. The People's Republic is now ranked the world's third-largest shipbuilder after the Republic of Korea (ROK) and Japan.<sup>75</sup> As in other transportation sectors, the shipbuilding industry did not really begin to register high growth rates until the early 1980s. Between 1991 and 1995 China's shipbuilding industry grew at a rate of 22%. Wang Rongsheng, the General Manager for CSSC, plans to transform China's shipyards into some of the world's most-advanced by the end of this century, and has stated "great effort will be made to improve the country's design, manufacturing and technological levels and to raise shipbuilding capacity to 4 million tons. . . ."<sup>76</sup>

This is an area where there is a greater likelihood China could succeed in modernizing its industry than in others. Unlike other transportation sectors where a number of important technological advancements hold the key to successfully building an entire industry and making it competitive, constructing large ships to accommodate freight is not necessarily a high-tech, capital-intensive industry. China has gained much experience in designing, engineering, and manufacturing large freight vessels and container ships over the last four decades, and has exported its ships to a number of countries, including the United States.

During the Eighth Five-Year Plan (1991-1995) China's shipbuilding output was nearly 6.7 million tons, worth \$2.7 billion.<sup>77</sup> About 60% of all design and engineering work of the 70 available ship models is carried out by the CSSC. Large ocean-going vessels are built at one of the CSSC's three main shipbuilding facilities in Dalian, Shanghai, and Guangzhou. The northern port on the Yellow Sea is not only home to China's largest-produced ships but also boasts the most modern manufacturing facilities in the country. China currently has one dry dock with a manufacturing capacity of 100,000 tons, one shipyard with twice the manufacturing capacity of the former, and a floating dock capable of fabricating 100,000-ton ships. Other shipyards along China's coastline also have construction and repair capabilities. At the end of November 1995 the CSSC managed to surpass its objective of total production capacity of 1.5 million tons by 250,000 tons.<sup>78</sup>

<sup>75</sup> See *Beijing Review*, June 26-July 2, 1995, p. 15.

<sup>76</sup> *Ibid.*, p. 16.

<sup>77</sup> See *Beijing Review*, January 1-7, 1996, p. 5.

<sup>78</sup> *Ibid.*, p. 5.

CHINA'S TRANSPORTATION SYSTEM AS A FACTOR OF  
ECONOMIC GROWTHCHINESE TRANSPORTATION IMPORTS AND U.S. MARKET POTENTIAL <sup>79</sup>

China's central government has announced extensive plans to spend between \$40 and 50 billion on the modernization and upgrading of China's transportation systems and infrastructure through the year 2000, and projects the country will need to import \$4.0–6.0 billion worth of transportation equipment annually to keep pace with rapid increases in demand.<sup>80</sup> The largest transportation import sectors are likely to be in the civil aviation and motor vehicle sectors.

Because Beijing considers itself to be in the beginning stages of developing a modern economy and thus maintains the position that it is incapable of competing against other Western and Asian nations on equal terms, the central government has adopted a two-prong strategy designed to slow the pace of its integration into the global economy, and into that of the developed world. It appears that Beijing is hoping to fund a large share of its transportation projects through direct foreign investment and joint ventures. To date, foreign firms have invested over \$7.0 billion in China's automobile and civil aviation sectors.<sup>81</sup> Two of these industrial policies help to illustrate the regime's control over the extent to which the Chinese economy will be allowed to proceed towards opening its markets, and make progress towards becoming an efficient market economy.

- Chinese planners believe it is in their national interest to support and protect the domestic industries first and foremost, before allowing Western-style open market competition to take place.
- In order to become more competitive vis-à-vis other Western and Asian countries, China has embarked on a path linking loans obtained from international financial institutions and direct foreign investment with the gradual and progressive transfer of technology and associated know-how, in hopes of considerably reducing the timespan necessary to become a peer competitor in certain industries.

Chinese trade data indicate that its imports of transportation vehicles, equipment, parts, and other related items, have sharply increased in recent years, from \$4.8 billion in 1988 to nearly \$9.6 billion in 1994, representing an increase of 98.8% (see Table 7). Motor vehicles have accounted for the largest imports during this period, although their share of total Chinese transportation imports have declined in recent years, as a result of large imports of commercial airplanes and parts. In 1988, motor vehicles and automotive components accounted for the bulk (roughly three-quarters) of Chinese transportation imports; in 1994 they accounted for less than half. Imports of passenger airplanes and aviation parts rose from 8.7%

<sup>79</sup> See *Conference on China's Infrastructure: Latest Profitable Opportunities for U.S. Business—Technical Materials*, November 3–4, 1994, U.S. Chamber of Commerce, Washington, D.C. for further information.

<sup>80</sup> See *Big Emerging Markets*, Department of Commerce, World Wide Web site.

<sup>81</sup> *Ibid.*

TABLE 7. Chinese Transport Vehicles and Component Imports from the World and the United States: 1988–1994.

Import Measure	1988	1989	1990	1991	1992	1993	1994	1988/1994 % Change
World (\$Millions) .....	4,811	5,296	5,957	7,525	6,021	8,469	9,562	98.8
United States (\$Millions) .....	414	639	873	1,220	1,462	1,939	3,237	681.9
U.S. Import Share (%)	8.6	12.1	14.7	16.2	24.3	22.9	33.9	—

Source: United Nations Trade Data System. Data based on official Chinese government statistics.

of total transportation imports in 1988 to 35.1% in 1994. Chinese imports of railway vehicles and parts are relatively small, and have progressively diminished in recent years; in 1994 they constituted less than 1.0% of total transportation imports. Ships and vessel imports increased by 434% between 1988 and 1994, and constituted approximately 14% of China's transportation imports in 1994.

Chinese statistical data indicate that imports of U.S.-manufactured transportation products rose from \$414 million in 1988 to \$3.2 billion in 1994, an increase of 682%. The U.S. share of China's transportation imports over this period rose from 8.6% to 33.9%.

#### THE RAILWAY SECTOR

China's three major railway networks are often referred to as "arteries," since there are few smaller rail lines that actually connect and give access to a majority of the people living in the inner provinces to other cities and towns throughout much of the central and western regions of the country. The PRC's railway system is missing "veins"—much like the branches of a tree. The entire industry and the process of modernization have been largely concentrated in the eastern provinces and along the coastal regions.

At present, China's Ministry of Railways must accommodate close to 25.6 million tons/km annually, and its freight trains have the highest turnover rates in the world. Studies undertaken by the central government show that the railway system can only cope with up to 60% of the current cargo loads, even though there are trains leaving the stations every 10 minutes, in some cases every six minutes. And it may be possible that the situation is actually worse than publicly acknowledged.

TABLE 8. Chinese Railway Imports from the World and the United States: 1988–1994.

Import Measure	1988	1989	1990	1991	1992	1993	1994	1988/1994 % Change
World (\$Millions) .....	511	469	318	72	48	86	94	-81.6
United States (\$Millions) .....	3	4	6	3	11	11	15	400.0
U.S. Import Share (%) .....	0.6	0.9	1.9	4.2	22.9	12.8	16.0	—

Source: United Nations Trade Data System. Data based on official Chinese government statistics.

For example, the Director of the Dalian Port Authority, Wang Diandong, recently said that the port requires, at the *very minimum*, 500–600 freight cars daily to handle cargo demand. However, the railway authorities there have only been able to supply 270 freight cars/day, 46% short of what is required at the minimum level.<sup>82</sup> It is not uncommon for companies to bribe and pressure railway employees to ensure that their products receive priority over the cargo actually scheduled for shipment. Consequently, the chronic shortage causes some 20% of China's agricultural produce to spoil before it can be delivered to markets on time, and must therefore be written off as a loss.<sup>83</sup>

China's imports of railroad equipment have been relatively small, due to attempts by the central government to meet most of its needs through domestic sources. In 1991 and 1992, for example, the Ministry of Railways imported equipment valued at \$120 million, a rather modest sum considering the potential size of China's transportation and infrastructure requirements (see Table 8). Great Britain (UK) was the largest exporter during these years, controlling 25% of the Chinese market. Seventeen percent of all imports in 1992 originated in the United States, amounting to \$10.4 million.<sup>84</sup> China's imports of railway vehicles and parts dropped from \$511 million in 1988 to \$94 million in 1994, a decrease of 81.6%. However, railroad imports from the United States have increased by 400% since 1988, totalling \$15 million in 1994 (the second-largest supplier after the Federal Republic of Germany), accounting for 16% of all Chinese railway imports, and approximately 0.5% of China's total transportation imports from the United States. The Ministry's efforts to expand its railway network may lead to additional trade opportunities for American companies, although they are likely to be in the form of joint ventures.

The U.S. International Trade Administration of the Department of Commerce rates the receptivity of U.S.-made railway equipment to the PRC a three on a scale of one to five, suggesting there is much room for American companies to improve their competitiveness vis-à-vis other foreign businesses, and increase their market share.<sup>85</sup> Although U.S. products enjoy a good reputation among the Chinese, they are not as highly regarded as the products of European competitors. This can be partially traced to the higher costs of U.S. products and limits on access to foreign exchange.<sup>86</sup>

#### THE HIGHWAY SECTOR

The Chinese automobile industry is highly fragmented. Two examples that help to illustrate the magnitude of the current problems in drawing the industry together, and benefitting from economies-of-scale are the following:

- The Automotive Industry Bureau currently oversees the production of over 100 different types of vehicles in 125 production

<sup>82</sup> See *China: Railroad*, Market Research Report ISA9307, Department of Commerce, International Trade Administration (ITA), March 21, 1995, p. 3.

<sup>83</sup> *Ibid.*, p. 3.

<sup>84</sup> Based on authors' calculations.

<sup>85</sup> One denotes the lowest, and five the highest, degree of receptivity.

<sup>86</sup> See *China: Railroad*, Market Research Report ISA9307, Department of Commerce, International Trade Administration (ITA), March 21, 1995, p. 2.

facilities, capable of manufacturing entire passenger vehicles. Not only is this inefficient and represents a huge drain on state subsidies but China's fragmented industry lacks any signs of *synergy*. There is little creativity or input from the thousands of car designers, engineers, and assembly workers to manufacture a part or component more efficiently, or make it more effective using less resources. Marketing surveys to receive customer input is practically non-existent. All this could help the state develop a more efficient and modern auto industry. Furthermore, aggregate output by all of China's automotive production sites is less than one of the three American carmakers General Motors (GM), Ford, or Chrysler Corporation.<sup>87</sup> In addition, there are some 600 factories in China that assemble "specialty vehicles" from components shipped from over 3,000 suppliers and parts manufacturers. Another 600 assemble or overhaul vehicles, and yet another 800 factories produce or assemble buses in small quantities destined for public transportation.

- The AIB has also laid out a number of policies designed to slow the penetration of foreign automakers into the Chinese market as part of its strategy to protect the infant domestic industry from competition. This protection consists mainly of maintaining high tariffs on imports, as well as the prohibition to form any new joint ventures (at least for the time being). However, these restrictions do not apply to vans, mini-vans, so-called specialty vehicles, buses, and trucks.<sup>88</sup>

While the AIB is interested in acquiring production know-how and technology from the West and Japan to help support the growth of this pillar industry, the Agency remains reluctant to dismantle the protective barriers it has erected completely. For this reason, AIB planners recognize the need to restructure the domestic auto industry from the ground up. This will inevitably force the consolidation and downsizing of some major production facilities throughout the country. With the existence of so many enterprises in jeopardy, thousands of workers may be out of work—an unwanted byproduct that could have widespread political, economic, and social ramifications if implemented too quickly. Thus, the central government is reluctant to move too quickly to implement major industry reforms.

In its market research report on China's automotive industry, the U.S. ITA notes that "Provincial and municipal governments are important players in the automotive sector and are not likely to give up their part of the industry easily," which complicates any desires of restructuring the auto industry to make it more efficient and streamline operations.<sup>89</sup>

Despite the need to fill the existing gaps in demand through the import of foreign cars, the central government is purposely limiting the quantities allowed into the country to control consumer availability on the one hand, while ensuring that the domestic industry

<sup>87</sup> See *China: Auto Industry Overview*, Market Research Report IMI960112, Department of Commerce, International Trade Administration (ITA), January 16, 1996, p. 2.

<sup>88</sup> See *China: Automotive Industry*, Market Research Report ISA9406, Department of Commerce, International Trade Administration (ITA), March 21, 1995, p. 2.

<sup>89</sup> *Ibid.*, p. 2.

has the requisite time to build up its expertise and technological capacity, in order to compete with foreign automakers on the other. For these reasons, China's strategy to limit competition until it deems its automobile industry ready for market competition is a decisive factor in determining economic growth, productivity, and progress towards modernizing its domestic production capabilities.

China's imports of motor vehicles and parts rose from nearly \$3.6 billion in 1988 to \$4.6 billion in 1994, an increase of 66.7% (see Table 9). Imports rose from \$117 million to \$463 million, up 296%, over the same period. The U.S. market share rose from 3.3% in 1988 to 10.1% in 1994, making it the third-largest supplier after Japan (54%) and the Federal Republic of Germany (19.5%). Motor vehicles and components accounted for 14.3% of China's transportation imports from the United States in 1994.

The central government has promulgated rules that seek to protect Chinese domestic manufacturers from foreign competition, e.g., restricting imports of complete automobiles and certain parts. The AIB has also sought to encourage foreign firms to establish joint ventures in the PRC, in order to support domestic production capabilities. While such policies will likely restrict imports of finished passenger cars, they are likely to generate trade opportunities for U.S. firms in the components area of Chinese state-owned automobile manufacturers.<sup>90</sup>

The U.S. ITA concurs with that assessment, citing the best investment opportunities in the components area of highly-integrated, state-owned automobile manufacturers.<sup>91</sup> The four major categories of interest are engine parts, chassis and related parts, auto electrical appliances, and other components. Over the last two years, Ford Motor Company has been developing a joint Sino-U.S. workshop to address the "policies and technologies appropriate for China's rapidly developing automobile industry."<sup>92</sup> China's auto components market is projected to grow from \$26.9 billion in 1994 to \$36.8 billion in 1996, an increase of 36.8%. Imports will comprise nearly \$6.3 billion, or approximately 17% of the domestic market in 1996. This indicates that Chinese imports of U.S. auto parts could total \$631.1 million in 1996.<sup>93</sup>

Although Ford lost its bid against rival GM to enter into a joint venture with the Shanghai Automobile Industry Corporation (SAIC) in a billion-dollar contract, the company is still planning to build a passenger sedan for the Chinese market, a car for the "masses."<sup>94</sup> The prospects for such a car are optimistic. China offers the promise of cheap and abundant labor, and Ford can supply the necessary capital and technology. The company can draw upon its wide range of expertise not only in the technological and production area but equally important, from its worldwide marketing

<sup>90</sup> See *China: Auto Industry Overview*, Market Research Report IMI960112, Department of Commerce, International Trade Administration (ITA), January 16, 1996, p. 1.

<sup>91</sup> See *China: Leading Sectors for U.S. Exports & Investments*, Document ID393, Department of Commerce, International Trade Administration (ITA), pp. 3-4.

<sup>92</sup> See *China: Auto Industry Trends*, Market Research Report IMI951206, Department of Commerce, International Trade Administration (ITA), December 6, 1995, p. 1.

<sup>93</sup> Based on authors' estimates.

<sup>94</sup> See *China: Auto Industry Trends*, Market Research Report IMI951206, Department of Commerce, International Trade Administration (ITA), December 6, 1995, p. 3.



knowledge that would prove an invaluable asset in promoting a jointly-manufactured Chinese-American car.

China's restrictions on autos and auto imports are likely to become a source of bilateral tension in the years ahead. The United States has raised this issue with the central government in discussions over China's accession to the World Trade Organization (WTO), and over talks relating to the Sino-U.S. market access agreement of October 10, 1992.

TABLE 9. Chinese Motor Vehicles and Component Imports from the World and the United States: 1988-1994.

Import Measure	1988	1989	1990	1991 <sub>c</sub>	1992	1993	1994	1988/1994 % Change
World (\$Millions) .....	3,583	3,720	4,218	5,728	3,330	4,966	4,562	66.7
United States (\$Millions) .....	117	110	115	190	369	486	463	295.7
U.S. Import Share(%)	3.3	3.0	2.7	3.3	11.1	9.8	10.1	—

Source: United Nations Trade Data System. Data based on official Chinese government statistics.

It appears that in the near future, China plans to be totally independent from any such joint ventures when it has built up the requisite expertise, in order to minimize the potential drawbacks and circumvent export controls that could arise as a result of trade sanctions with the United States. To facilitate this, the central government has mandated industry policy to require manufacturers to progressively include a minimum local content in the jointly-manufactured cars and trucks. According to the U.S. ITA, "These local content requirements are designed to force assemblers to buy components and raw materials on the local market, thereby contributing to the development of Chinese industry."<sup>95</sup>

For example, at present, government regulations stipulate that any Chinese company entering into a joint venture must achieve a 40% minimum local content from the outset; in the second year that percentage must increase to 60%; and finally rising to 80% during the third year of operation. Although quite demanding, this can be advantageous in the sense that vehicle manufacturers and assemblers have been able to receive 100% local content credit towards their localization efforts for a component which may actually contain only 40% local content. There are also other exceptions, such as instances where the Chinese partner may be unable to supply the minimum local share that works to the benefit of the joint venture companies. Smaller components are considered to contain 100% local content if they are assembled in China.<sup>96</sup>

#### THE CIVIL AVIATION SECTOR

China's imports of commercial airplanes and parts rose from \$417 million in 1988 to almost \$34 billion in 1994 (see Table 10). Imports from the United States rose from \$287 million in 1988 to

<sup>95</sup> See *China: Automotive Industry*, Market Research Report ISA9406, Department of Commerce, International Trade Administration (ITA), March 21, 1995, p. 3.

<sup>96</sup> *Ibid.*, pp. 3-4.

\$2.7 billion in 1994, an increase of 853%. The sharp increase in Chinese purchases of U.S. airplanes and aviation components parallels that in overall Chinese transportation imports, as well as the surge in its transportation imports from the United States.<sup>97</sup> U.S. firms accounted for 81.5% of China's commercial airplane and parts imports in 1994.<sup>98</sup>

TABLE 10. Chinese Civil Aviation Imports from the World and the United States: 1988–1994.

Import Measure	1988	1989	1990	1991	1992	1993	1994	1988/1994 % Change
World (\$Millions) .....	417	629	869	1,215	2,005	2,259	3,353	704.1
United States (\$Millions) .	287	512	733	1,021	1,070	1,348	2,734	852.6
U.S. Import Share (%) .....	68.8	81.4	84.3	84.0	53.4	60.0	81.5	—

Source: United Nations Trade Data System. Data based on official Chinese government statistics.

The Department of Commerce lists commercial airplanes and parts as the sector offering the greatest prospects (among 21 non-agricultural sectors surveyed by the Department) for U.S. sales to the PRC, as a result of China's booming demand for air travel; the high regard the Chinese have for American-made passenger airplanes; the inability of China's domestic aerospace industry to meet the country's rapidly developing air transportation requirements; and the relatively small number of domestic and foreign competitors (Boeing, McDonnell Douglas, and the European consortium, Airbus Industries).

Chinese officials project that the PRC will need to import some 800 mid-size and wide-body passenger airplanes worth an estimated \$45 billion by the year 2010, which would nearly double the fleet of China's commercial airplanes to 1,500 in 2010, making the PRC the third-largest commercial airplane market in the world after the United States and Japan. This may result in nearly \$37 billion worth of airplane and parts imports from the United States (assuming the U.S. maintains an 81% market share). The central government is planning to spend \$1.0–2.0 billion annually over the next five to ten years to build or renovate new airports, which could generate additional aviation-related imports from the United States.

Despite America's strong dominance in the Chinese commercial airplane market, competition is strong and determined by two significant factors:

- The climate of Sino-U.S. political and economic relations may have considerable influence on trade with China. In April 1996, the Chinese signed an agreement covering the sale of 30 Airbus Industries A320s, and confirmed options on three additional A340s valued at Yn13.1 billion (\$1.5 billion [1995]), indi-

<sup>97</sup> Chinese imports of U.S. commercial airplanes and parts accounted for 28.6% of China's total transportation imports in 1994, and 83.5% of Chinese transportation imports from the United States.

<sup>98</sup> U.S.-manufactured commercial airplanes and parts accounted for nearly 50% of the total Chinese market in the civil aviation sector.

cating that China may be attempting to play the United States off against its European competitors when bilateral disputes are unresolved to China's satisfaction.

- The Chinese are looking beyond simply buying entire commercial airplanes from Western countries. They are interested in strengthening their own domestic aerospace capabilities, and acquiring as much technological know-how as they can through offset and co-production agreements.<sup>99</sup>

Any one or a combination of the these two components will form a basis for negotiating the acquisition of foreign commercial airplanes. However, although the Chinese desire the very best technology and want to buy more Boeing airplanes, they are unwilling to close the deals if it may mean compromising their fundamental political values.

The Boeing Commercial Airplane Group has been negotiating the sale of ten of its new B777s, five B747-400s, and 15 additional B737-700s to the Chinese government.<sup>100</sup> Because of the many unresolved disputes, however, China has effectively placed the orders worth \$4.0 billion with the U.S. aerospace giant on hold. "Over the past 15 months China has canceled orders for more than 100 Boeing planes, including 10 of Boeing's newest twinjet, the 777," notes the *Journal of Commerce*.<sup>101</sup> Thus, from the perception of America's aerospace industry executives, lucrative contracts are being lost as a cost of U.S. foreign and economic policy. "Without the political problems with China, 'We'd have all those planes,'" says Ronald Woodard, President of the Boeing Company.<sup>102</sup>

In its 1996 *Market Outlook Report*, Boeing expects China to become the predominant market for its commercial airplanes in the Asia-Pacific region over the next two decades, totaling \$130 billion in contracts.<sup>103</sup> Boeing estimates China's passenger airplane requirements will top 1,320 units. The Seattle-based company still dominates the Chinese market, and over half of the 400 commercial airplanes operated by China's 32 airlines are Boeings.<sup>104</sup> Between 1993 and 1995, one out of ten passenger airplanes manufactured by Boeing went to a Chinese airline.

<sup>99</sup> Just how important it is to the Chinese to acquire as much technology as possible can be extrapolated from their experience with their first Boeing B707s. Eight years after China received its first Boeing airplanes in 1972, Chinese engineers and workers tried to build an exact copy through reverse engineering, dubbed the Y-10. However, the development of the airplane experienced a number of unresolved technical difficulties, and never entered into production. See *The Seattle Times*, May 26, 1996. p.A12. Designing, engineering, and building any large passenger airplane is a high-technology process, requiring the labors of thousands of highly-educated, as well as highly-skilled workers, and a massive commitment to ongoing research & development (R&D) in various physical disciplines: from materials technology to powerplants, fasteners, and exotic glues, to lightweight but robust construction, and efficient fuels to powerful avionics, etc. The Chinese were never able to build-up a modern aerospace industry after their break with the former Soviet Union in 1960 that might have successfully duplicated the kinds of engineering feats necessary to manufacture an entire B707. The challenge in reverse engineering is not only to determine how something is put together but, for example, what the composition of the materials is, as well as their specific alloys. In addition, in an airplane as large as a B707, the management of combining all the individual structures, parts, and components is a critical process (systems integration), which has not matured in the Chinese aerospace industry. Therefore, the Chinese are interested in acquiring as much foreign technology as they can in order to modernize and strengthen their domestic capabilities.

<sup>100</sup> See *Financial Times*, April 9, 1996. p. 4.

<sup>101</sup> See *Journal of Commerce*, April 15, 1996. p.3A.

<sup>102</sup> *Ibid.*

<sup>103</sup> *Ibid.* Also see *Financial Times*, April 12, 1996. p. 6.

<sup>104</sup> China has bought 252 commercial airplanes from the Boeing Company since 1972.

Both Boeing and McDonnell Douglas have invested heavily in their China operations. The American companies have concentrated on establishing training centers, co-production facilities, safety programs, going so far as to help new Chinese airlines set up their operations. Boeing has built "one of the world's largest aircraft spare parts center at Beijing Capital Airport," which can "meet urgent orders for 15,000 parts in two hours."<sup>105</sup> The company has gone to great lengths to support China's economic modernization drive, and introduce Western-style management skills to a largely backwards country. It has furthermore spent considerable time and effort in training Chinese workers to manufacture various components domestically for use in its commercial jetliners. But there is still much room for improvement.

The Boeing effort is aimed at encouraging key Chinese suppliers to adopt its sophisticated management practices and quality processes used to design and produce the B777, as well as the next-generation of B737s. Gary Brown, the regional senior manager for Boeing in Beijing, comments, "You can't be world-class unless you use world-class planning tools."<sup>106</sup> The final goal of training Chinese engineers and machinists will be to manufacture state-of-the-art parts destined for the upcoming B737-700-series. Reportedly, much of U.S. effort focuses on introducing and continuously reinforcing Western management practices that not only stress economies-of-scale and high production quality but also creativity, initiative-taking, a focus on the customer, a commitment to after-sales support, and clearly defined goals and performance-related incentives to "revolutionize" the existing mentality to achieve gains in productivity. In short, the objective of both Boeing and McDonnell Douglas is to introduce and make the concept of "Total Quality Management" (TQM), a mainstay in the Chinese psyche.

While Chinese aerospace workers have been able to produce parts that meet U.S. Federal Aviation Administration (FAA) requirements, they are not considered to be state-of-the-art.<sup>107</sup> The aerospace industry is very capital-intensive, requiring high allocations to ongoing research and development (R&D). Consequently, China will have to devote far more capital and resources than it has in the past to the development of its civil aviation sector if it is to be a first rank competitor in world markets. The real advantage that China offers foreign companies is a seemingly endless pool of motivated, trainable labor coupled with low wages.

#### THE WATERWAY SECTOR

China imported approximately \$1.3 billion of waterway-related equipment in 1994, an increase of 434.1% over 1988 levels (see Table 11). During this period, the United States increased its market share of the Chinese waterway sector from \$7.0 million in 1988 to \$19 million in 1994, representing a 171.4% increase. However, with just 1.4% in 1994, the U.S. had a very small share of the Chinese waterway transportation market, unlike the motor vehicles and commercial airplane markets where the share of American

<sup>105</sup> See *Financial Times*, April 12, 1996, p. 6.

<sup>106</sup> See *Far Eastern Economic Review*, August 31, 1995, p. 45.

<sup>107</sup> *Ibid.*

companies during the same year was 10.1% and 81.5%, respectively.

China apparently plans to spend over six billion dollars developing ports and waterways during the Ninth Five-Year Plan, according to a study by Peregrine Brokerage, Ltd.<sup>108</sup> Much of the needed investment is expected to come from foreign companies, and government regulations overseeing their participation in domestic development projects have been eased to allow for greater expansion. As in other sectors of the economy, foreign firms are now allowed to invest and participate in the management of joint venture wharves and ports, as well as set up entirely foreign-owned enterprises. Financing has come in the form of loans from a number of different sources, e.g., the World Bank, the Asian Development Bank, and the Overseas Economic Cooperation Fund. Foreign funding will be used to further develop the construction of ports and berths at Qinghuangdao, Dalian, Tianjian, Shijiazhuang, Shanghai, Ningbo, Lianyungang, Xiamen, and Guangzhou.<sup>109</sup>

Between 1987 and 1993, an estimated \$230 million in foreign funds were utilized to facilitate the construction of a number of ports. In recent years, about 90% of foreign investment has gone towards the development of container wharf projects. Future port projects include a container consolidation facility in Shanghai. The Hong Kong Wharf Group is involved in the development of a container port at Wuhan. Other projects include a consortium composed of U.S., Philippine, and Hong Kong firms that are entering into a joint venture with a Chinese container firm to develop Guangzhou's Huangpu Container Consolidation Wharf. Hong Kong currently ranks as one of the world's most-crowded shipping centers, and many companies are increasingly planning to transfer some of their operations to ports along China's coastline in anticipation of future increases in cargo handling capacity.

Furthermore, the Ministry of Communications is contemplating a number of options on how to facilitate inland waterway transportation more effectively. At the center of waterway transportation is the Yangtze River, which accounts for at least 70% of total inland waterway freight tonnage, totalling nearly 7.5 billion tons in 1994.<sup>110</sup> Despite developments under way to improve the infrastructure in the waterway sector, this particular sector may find it difficult to attract sustained foreign direct investment because the transported goods "consist primarily of non-tariff items such as coal and building materials."<sup>111</sup>

While the development of all modes of transportation has become a higher national priority in recent years, it is likely that the waterway sector will continue to be relegated to the lowest rank in the transportation hierarchy, since infrastructure developments in the railway, highway, and civil aviation sectors are more advanced, and are thus in better positions to help alleviate bottlenecks in the distribution of natural resources and other valuable commodities.

<sup>108</sup> See *The China Business Review*, September-October 1994. p. 46.

<sup>109</sup> *Ibid.*

<sup>110</sup> Based on authors' calculations.

<sup>111</sup> See *The China Business Review*, September-October 1994. p. 46.

TABLE 11. Chinese Waterway Imports from the World and the United States:  
1988-1994.

Import Measure	1988	1989	1990	1991	1992	1993	1994	1988/1994 % Change
World (\$Millions) .....	252	424	489	338	452	843	1,346	434.1
United States (\$Millions) .....	7	12	18	3	4	88	19	171.4
U.S. Import Share (%) .....	2.8	2.8	3.7	0.9	0.9	10.4	1.4	—

Source: United Nations Trade Data System. Data based on official Chinese government statistics.

### MARKET IMPLICATIONS OF CHINA'S TRANSPORTATION CHALLENGES

Since 1949, the People's Republic has made substantial progress towards building a rudimentary transportation system. However, China's last 18 years of rapid economic growth have increasingly strained the existing transportation network, creating bottlenecks and causing traffic congestion throughout many provinces. China continues to suffer from the lack of a modern, nation-wide, and integrated transportation network. For the most part, investment in the transportation sector has failed to maintain pace with the burgeoning demand for transportation services that has resulted from the country's booming economy.

The central government has recognized this problem, and has made the upgrading and expansion of the transportation system a high priority. It has sought to boost spending on transportation infrastructure, and has purchased large quantities of foreign transportation vehicles and equipment, in particular commercial airplanes. However, it appears that China's long-term transportation modernization plans include attempting to become, to the extent possible, self-reliant for its transportation needs. To that end, the central government has promulgated a number of industrial policies, which have sought to promote the development of key transportation sectors, i.e., in the automobile and civil aviation sectors. For example, China has sought to negotiate advantageous co-production and/or offset arrangements with foreign companies in order to obtain technology, as well as the managerial skills necessary for developing and modernizing its own domestic industries. PRC officials believe they can use the allure of China's potentially large markets to induce foreign companies to invest in their country. Furthermore, it appears that China may increasingly seek to protect certain transportation sectors from foreign competition. One recent example includes measures designed to restrict foreign access to China's auto market, except through the establishment of joint ventures with Chinese companies. The central government believes such industrial policies will accelerate China's ability to develop modern and internationally competitive transportation sectors.

China's industrial policies, while resulting in marginal benefits for certain protected industries, may have negative effects on its attempts to modernize and upgrade its transportation system and hence, could dampen overall economic growth as well. Such policies promote inefficiencies in the economy, essentially because decisions on transportation purchases are determined by central planning,

rather than by market forces. Restricting the ability of Chinese entities to purchase transportation equipment from non-Chinese sources generally raises prices, and denies the purchaser the ability to obtain the best product available. Furthermore, protected industries become far less efficient, and produce at a lower level of quality than industries that are forced to compete in a free market economy. Chinese restrictions on market access are more likely to hamper, rather than promote, foreign investment in China's transportation sectors. This is due to the limited ability of foreign companies to control their own operations, which raises the perceived risks of investing. A more open trade and investment climate would likely lead to greater foreign investment in transportation production facilities in China, and would raise competition and efficiency of such operations, both domestically and foreign-owned.

Whether China's transportation system becomes an engine of economic growth or a bottleneck to growth will largely depend on its ability to develop and fund an overarching, comprehensive plan, which will modernize and more fully integrate the various transportation sectors and networks. In addition, the PRC will need to make major strides to improve operating efficiency throughout its current transportation system by implementing reforms that expose the different transportation sectors to free market forces. Unless such steps are successfully implemented, demand will likely continue to outpace China's transportation capabilities, accelerating bottlenecks, and dampening future economic growth.

# CHINESE MILITARY MODERNIZATION: MOTIVES, OBJECTIVES, AND REQUIREMENTS

By Michael D. Swaine \*

## CONTENTS

	Page
Summary .....	320
China's Military Modernization Program .....	321
Motives .....	321
To Correct Widespread Obsolescence .....	322
To Deal with Regional and Global Threats and Concerns .....	324
To Attain Great Power Status .....	326
Objective: A Fully Modernized Military .....	327
Accomplishments .....	329
PLAAF .....	330
PLAN .....	330
Ground Forces .....	330
Strategic Forces .....	330
Future Requirements and Obstacles to Modernization .....	331
Leadership Priorities .....	331
Financial Resources .....	332
R&D, Manufacturing, and Organizational Capabilities .....	337
Conclusion .....	338

## TABLE

Table 1. China's Current Force Structure .....	323
--	-----

## FIGURE

Figure 1. Chinese Military Expenditure as a Percentage of GNP and Total Government Expenditure, 1984-1994 .....	334
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## SUMMARY

China is currently embarked on a long-term, comprehensive program of military modernization designed to address long-standing deficiencies in weapons, equipment, doctrine, and training and to increase China's ability to contend with a wide range of potential threats and realize several long-standing national aspirations. Although underway for perhaps only a decade at most, this modernization program has witnessed a significant increase in Chinese nominal defense spending, the acquisition of advanced foreign weapons systems, the indigenous development of new systems, improvements in existing systems, and notable progress in the areas of training, readiness, power projection, and combined services warfighting.

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These and other advances have generated growing concern in Asia and beyond regarding the implications of an increasingly capable Chinese military for regional political and military stability, continued regional economic growth, and freedom of navigation and communication across maritime Asia. Such concerns have in turn led policymakers and strategists to ask how quickly and in what manner the Chinese will likely construct a modern, potent military capable of significant power projection.

These are not easily answerable questions. Recent defense spending levels and weapons improvements do not in themselves provide a reliable indicator of future trends in China's military modernization effort. More specifically, one should not assume that the initial advances in Chinese military modernization witnessed during the past 5–10 years constitute qualitative leaps forward in capability, or that significant increases in defense spending and improvements in technology will accelerate or remain at high levels over the long term, as will likely be required to field a modern and potent military force.

Many factors will influence the long-term pace and scope of China's military modernization program. These include, most notably: a) the civilian versus military development priorities of China's senior civilian and military leadership; b) various "objective" economic, technological, and organizational, constraints; and c) the actions of other countries. Some of these factors present major, likely enduring, obstacles to the attainment of China's modernization objectives. Perhaps of greatest interest, in this regard, are the first and second factors. In particular, any meaningful assessment of China's ability to acquire truly potent military capabilities must take into account the demands upon and availability of resources and technologies essential for military modernization.

This chapter consists of two major sections. The first section briefly describes the motives, objectives, and recent accomplishments of China's long-term program of military modernization, including an assessment of the existing baseline and ultimate endpoints in operational doctrine, force structure, organization, and personnel. The second section identifies the major economic, technological, and structural requirements for the attainment of China's military modernization objectives and assesses the likelihood that such requirements will be met over the next 15–25 years. This section discusses the serious deficiencies China faces in many areas required for defense modernization and presents some possible trade-offs in funding and resource applications that might become necessary.

## CHINA'S MILITARY MODERNIZATION PROGRAM

### MOTIVES

China's long-term program of military modernization is motivated by three fundamental necessities: 1) to address long-standing and widespread problems of obsolescence and backwardness, especially in military equipment and technologies; 2) to cope with a variety of largely new and specific post-Cold War threats and concerns, including possible threats to claimed territories along China's periphery in Asia as well as potential long term threats from

major powers; and 3) to support China's overall great power ambitions and augment its growing political and economic influence in East Asia and beyond.

### *To Correct Widespread Obsolescence*

China's present-day military force looks impressive on paper. As Table 1 shows, it is characterized by very large numbers of men and materiel. However, according to most knowledgeable observers, the force structure, operational doctrine, organization, and personnel of the Chinese military (commonly known as the People's Liberation Army or PLA) all lag significantly behind modern (much less state-of-the-art) levels in a variety of key areas, by as much as 15–20 years. For example, aside from some few, notable exceptions (discussed below), the PLA's current force structure is largely based on improved 1950s and 1960s weapons and technologies.<sup>1</sup>

Specifically, China's conventional forces display a variety of weaknesses. For example, the PLA Air Force (PLAAF) has rudimentary or non-existent offensive counter-air, close air support, battlefield interdiction, in-flight refueling, and airborne early warning and command and communications (C2) capabilities. The majority of its aircraft have a very limited range and generally suffer from obsolete airframe, engine, weapons, and avionics designs.<sup>2</sup> The PLA Navy (PLAN) is largely a coastal force, and contains many outmoded subs and surface combatants, with poor anti-submarine warfare, air defense, C2, and electronics systems, and very limited amphibious assault and support and at-sea replenishment capabilities. Moreover, naval and air force electronics and electronic warfare systems are outdated and inadequate. Little progress has been made in developing any new air defense network, for example.<sup>3</sup> The Chinese ground forces are oversized and infantry heavy (consisting of over seventy infantry divisions), and plagued by low mobility, obsolete weaponry, poorly educated officers and soldiers, and a limited ability to interact with PLAAF and PLAN forces in combined arms operations.

China's strategic forces also display significant weaknesses. They are very obsolete technologically, composed primarily of large, high yield warheads, and suffer from poor command, control, and communications, early warning, and attack assessment, and battle management capabilities. China's nuclear force is only capable of effective attacks against large, soft countervalue targets, such as metropolitan cities.<sup>4</sup> As a result, most analysts believe that China's missile, submarine, bomber, and C3I capabilities could be destroyed entirely or damaged seriously by an opponent's first strike. Although the Chinese might be able to launch a second strike

<sup>1</sup> Richard A. Bitzinger and Bates Gill, "Gearing Up for High-Tech Warfare? Chinese and Taiwanese Defense Modernization and Implications for Military Confrontation Across the Taiwan Strait, 1995–2005," Center for Strategic and Budgetary Assessments, Washington, D.C., February 1996, p.23.

<sup>2</sup> Kenneth Allen, Glenn Krumel, and Jonathan D. Pollack, *China's Air Force Enters the 21st Century*, (Santa Monica, CA: RAND Corporation/Project Air Force, 1995), p.103. Domestic aircraft production programs depend for their success largely on purchased engines and electronics. A totally indigenous cockpit design would slow down the program greatly, etc. See Eric Arnett, "Military Technology: The Case of China," *SIPRI Yearbook 1995: Armaments, Disarmament and International Security*, Oxford University Press, Oxford, 1995, p. 382.

<sup>3</sup> Arnett, "Military Technology: The Case of China," p. 385.

<sup>4</sup> Dingli Shen, "The Current Status of Chinese Nuclear Forces and Nuclear Policies," paper released by the Princeton University Center for Energy and Environment Studies, 1990, p. 11.

TABLE 1. China's Current Force Structure.

<b>Air Force</b>	
26 .....	Su-27
100 .....	F-8II
500 .....	F-7 (MiG-21)
3000 .....	F-6 (MiG-19)
400 .....	F-5 (MiG-17)
120 .....	H-6 (Tu-16)
300+ .....	H-5
10 .....	Il-76
<b>Navy</b>	
18 .....	Destroyers (DDG)
32 .....	Frigates (FFG)
1 .....	Nuclear Ballistic Missile Submarines (SSBN)
5 .....	Nuclear Attack Submarines (SSN)
1 .....	Guided Missile Submarines (SSG)
44 .....	Diesel Submarines (SS)
19 .....	Landing Ship—Tank (LST)
30 .....	Landing Ship—Men (LSM)
<b>Ground Forces</b>	
24 .....	Combined Group Armies (GA)
76 .....	Infantry Divisions
11 .....	Tank Divisions
6 .....	Artillery Divisions
2 .....	Mechanized Divisions
3 .....	Airborne Divisions
8000 .....	Main Battle Tanks (MBT)
4500 .....	Armored Personnel Carriers (APC)
<b>Strategic Forces</b>	
4-7 .....	Intercontinental Ballistic Missiles (ICBM)
12 .....	Submarine-Launched Ballistic Missiles (SLBM)
60-80 .....	Intermediate-Range Ballistic Missiles (IRBM)
10-36 .....	Medium-Range Ballistic Missiles (MRBM)
? .....	Short-Range Ballistic Missiles (SRBM/M-9)
? .....	Short-Range Ballistic Missiles (SRBM/M-11)

Sources: IISS, *The Military Balance, 1995-1996*, (London: IISS, 1996) and other RAND research on Chinese force modernization.

against large cities, it is unclear that they would be able to attack targets-of-opportunity or launch coordinated strikes.<sup>5</sup>

On the doctrinal level, although the PLA leadership has formally adopted a more modern set of warfighting concepts requiring mobility, flexibility, rapid response, concentrated and coordinated firepower and offensive power projection capabilities (see below), these concepts have yet to be fully operationalized throughout the military. Indeed, most basic level ground units of the PLA continue to

<sup>5</sup> Alastair Johnston, "Prospects for Chinese Nuclear Force Modernization: Limited Deterrence versus Multilateral Arms Control," *China Quarterly*, June 1996, p. 17.

follow many of the precepts of the "People's War" doctrine developed during the struggle against the Japanese and the Chinese Nationalists in the late 1930s and 1940s.<sup>6</sup> Moreover, although significant doctrinal innovations are now underway in the air and naval services, the PLA Air Force (PLAAF) and the PLA Navy (PLAN) continue to observe elements of their long-standing and much outdated doctrines of homeland and coastal defense.

Organizationally, the PLA continues to exhibit many features of a Soviet-style, ground force-centered force, including excessively large ground units (as mentioned above), strong vertically structured lines of communication with little horizontal contact across units or between services, strong (largely political) controls over information and ideas, thus stifling innovation and initiative, etc. As we shall see below, these features plague the defense industry system as much as they do combat and support units in the field.

Finally, despite the emergence of a younger, better educated, and more professionally trained officer corps that values purely military skills over ideology and political rectitude, the vast majority of PLA personnel (including most officers) still have only rudimentary, if any, education. Many ordinary soldiers cannot write or drive a car, much less understand and implement sophisticated doctrines or operate complex weapons systems.

Such across-the-board obsolescence and deficiencies demand a comprehensive modernization program. This is especially urgent, from the Chinese perspective, given the rapid advances occurring in the West in weapons technology,<sup>7</sup> battlefield command and control, electronic warfare, precision guided munitions, coordinated air/land operations, missile defense systems, and a host of other areas. Indeed, the upper levels of China's increasingly professional officer corps is highly cognizant of the enormous (and possibly growing) gaps between the technological capabilities of many Western (or Western supplied) armed forces and those of the PLA. Moreover, the importance to modern warfare of advanced military technologies and systems was made abundantly clear to the Chinese high command by the 1991 Gulf War.<sup>8</sup>

### *To Deal with Regional and Global Threats and Concerns*

China's program of military modernization is also driven by more specific factors, beyond the general need for a long overdue upgrade. The potential security threats and concerns China is facing today and for the foreseeable future have changed considerably

<sup>6</sup>"People's War" relies essentially on the use of World War II era ground warfare tactics involving massive numbers of foot soldiers (i.e., "the human factor"), largely armed with light weapons and deployed in mobile combat along a fluid front, receiving minimal and/or poorly coordinated air or naval support.

<sup>7</sup>China's defense R&D base is deficient in many high-tech areas, including microelectronics, computers, avionics, sensors and seekers, electronic warfare, and advanced materials. Bitzinger and Gill, "Gearing Up for High-Tech Warfare?" p. 17.

<sup>8</sup>Specifically, Operation Desert Storm confirmed the obsolescence of the Maoist notion of People's War. Those U.S. capabilities that most stunned the Chinese leadership included precision guided munitions, stealth technology, the high volume of aircraft sorties, airborne command and control systems, satellite-based targeting, intelligence gathering, early warning and surveillance systems, coordinated large-scale naval, air and land attacks, and the effective use of rapid deployment and special commando units. This list is taken from David Shambaugh, "The Insecurity of Security: The PLA's Doctrine of Threat Perception Toward 2000," *Journal of Northeast Asian Studies*, Vol. XIII, No. 1, Spring 1994, pp. 3-15.

from the time of the Cold War.<sup>9</sup> The end of the massive military threat presented by the former Soviet Union, the subsequent emergence of a multipolar economic, political and military environment in the Asia-Pacific, and the emergence of a host of Chinese domestic problems (e.g., growing crime, and corruption, declining regime legitimacy, an array of social and economic inequities, and sporadic ethnic unrest) have produced a less immediately and seriously threatening yet arguably more complex and uncertain security environment for China.

From Beijing's perspective, five specific features define this environment.

- A powerful and potentially threatening United States, increasingly at odds with China over a host of issues from human rights to arms sales and bilateral trade, still the dominant military power in Asia, yet also indispensable as an effective counterweight to Japan and an essential market for Chinese exports.
- An economically powerful and increasingly independent Japan, with expanding trade and investment links to China and other nearby Asian areas, high absolute levels of military spending, and a growing capability to develop offensive conventional (and possibly nuclear) weapons and a theater missile defense system (TMD).
- A more militarily capable and economically emergent India, with growing maritime interests, increased attention to South-east Asia, (historically the focus of Sino-Indian geopolitical competition), and decades of rivalry and sporadic border conflict with China.
- A host of rising second and third tier Asian powers (including South Korea, most of the ASEAN countries, and Taiwan), with rapid growth rates and expanding foreign trade and investment links, greater attention to external (and especially maritime) strategic interests, and increasing air and naval capabilities.
- The emergence of relatively unstable Islamic states on China's Central Asian borders, economically undeveloped and potentially threatening to those Chinese regions containing large Muslim minorities, such as Xinjiang Province.<sup>10</sup>

These features suggest that China's program of military modernization is intended to develop capabilities designed, in particular: to deal with the highly uncertain future conventional and unconventional military postures of the United States, Japan, the ASEAN states, India, and Russia; to maintain a credible threat of force toward an increasingly separatist-minded and economically potent Taiwan; to improve Chinese military and diplomatic leverage over and access to nearby strategic territories claimed by

<sup>9</sup>Much of the discussion concerning China's perceived security environment is taken from Michael D. Swaine, "China," in Zalmay Khalilzad (ed.) *Strategic Appraisal 1996*, RAND, Santa Monica, CA, 1996, pp.202-203.

<sup>10</sup>This listing is not intended to suggest that the Chinese leadership is unconcerned about the potential threat posed by a resurgent Russia. However, in the author's view, such a possibility is usually relegated to the distant future by most Chinese strategists. Moreover, other strategists believe that Sino-Russian interests might converge in the future, if Moscow's experiment with democracy fails and Russia returns to the socialist camp.

Beijing, such as in the South China Sea; to defend access to vital oceanic routes in the event of conflict; and to strengthen China's ability to deal with domestic social unrest and ethnically-based border instabilities.

Among the above diversity of possible threats, maritime contingencies have become increasingly important in recent years. In particular, the recent successes of Taiwanese President Lee Teng-hui's ongoing effort to achieve greater international recognition of Taiwan as a separate political and diplomatic entity from the mainland have apparently prompted Beijing to focus greater attention on acquiring more potent maritime air and naval capabilities for use in a variety of possible actions against the island. Such actions conceivably could include low-level intimidation through various military displays, a naval blockade, a limited missile or air attack, limited ground incursions, or even a full-scale invasion. The likely acquisition of such air and naval capabilities (see below) is intended to strengthen the credibility of Beijing's threat to use military force against Taiwan should the latter move towards outright independence.

These diverse security concerns together provide the foundation for China's emerging post-Cold War defense doctrine, which comprises such modern concepts as "local or limited war under high-technology conditions," "active peripheral defense" and "rapid power projection." These concepts, first enunciated by the Chinese leadership in the early and mid-1980s,<sup>11</sup> assume that local or regional conflicts or wars of relatively low intensity and short duration could break out virtually anywhere on China's periphery, demanding a rapid and decisive application of force through high-tech weaponry. Many such conflicts are seen to pose the possibility of escalation and expansion in intensity, duration, and geographic area. These possibilities are suggested by many of the specific potential threats and concerns mentioned above.<sup>12</sup>

### *To Attain Great Power Status*

Military modernization is also driven by China's long-standing great power ambitions. A modern military force is viewed by many Chinese as a necessary and potent symbol of China's emergence as a major power, and hence resonates with growing nationalist sentiments among the elite and populace. Such sentiments have come to the fore in recent years as a result of the successes of China's economic reform program, which has led to a period of prolonged and explosive growth, greater social freedoms domestically, a growing sense of national self-confidence, increased international leverage, and hence a desire for China to redress past humiliations and

<sup>11</sup> In 1985, Deng Xiaoping announced a "strategic decision" to shift the guiding doctrine of China's military modernization from preparation for an early, large-scale and nuclear war to preparation for a somewhat more peaceful environment where conflict would be limited to local, small-scale wars.

<sup>12</sup> According to Paul Godwin, a more generic definition of local or limited wars include: (1) small-scale conflicts restricted to contested border territory, (2) conflicts over territorial seas and islands, (3) surprise air attacks, (4) defenses against deliberately limited attacks into Chinese territory, and (5) punitive counterattacks launched by Chinese into enemy territory to "oppose invasion, protect sovereignty, or to uphold justice and dispel threats." See Paul H.B. Godwin, "Force Projection and China's Military Strategy," paper prepared for the Sixth Annual Conference on the Chinese People's Liberation Army, Coolfont, West Virginia, June 1995, p. 4.

reclaim its rightful place as a major, if not dominant, power in Asia.

Chinese nationalist and ultra-nationalist sentiments and accompanying demands for a modern military also derive, in some quarters, from the desire for a more powerful and assertive central government. Such a government is seen by many conservatives in China as necessary to stem a variety of social and political ills blamed on the reform movement and the accompanying introduction of foreign influences, including growing economic inequalities, rising crime and corruption, massive, social migrations, disrespect for authority, the erosion of morals, etc. Some Chinese believe that a stronger, more modern military would provide the wherewithal and the prestige both to rally the citizenry and to handle China's most serious domestic problems.

Finally, increasing nationalist support for a strong and modern military is also encouraged by the political machinations of China's successor leadership, who are pressured to support chauvinistic forms of nationalism to establish their authority and legitimacy in the contest for supreme power. Moreover, China's domestic ills also serve to accentuate the leadership's sensitivity to "external threats" and the resulting need for a more potent military, given the long-standing Chinese belief that domestic disorder invites foreign aggression.<sup>13</sup>

#### OBJECTIVE: A FULLY MODERNIZED MILITARY

The above concerns and beliefs have led to a significant transformation in China's strategic outlook and resulting force requirements, from that of a continental power requiring a minimal nuclear deterrent capability and large land forces for "in-depth" defense against threats to its northern and western borders, to that of a combined continental/maritime power requiring a more sophisticated conventional and unconventional force structure with medium and long-range force projection, mobility, rapid reaction, and off-shore maneuverability capabilities and a more versatile and accurate nuclear weapons inventory.

In the area of conventional weapons systems, key modernization programs focus on the creation of:<sup>14</sup>

- A smaller, more flexible, better motivated, highly trained and well-equipped ground force, centered on rapid reaction combat units with airborne drop and amphibious power projection capabilities.<sup>15</sup>

<sup>13</sup> However, strong limitations on such leadership support for military modernization exist, as discussed below.

<sup>14</sup> This list is derived from David Shambaugh, "China's Military: Real or Paper Tiger?" *The Washington Quarterly*, Volume 19, No. 2, Spring 1996, Center for Strategic and International Studies and the Massachusetts Institute of Technology, Washington, D.C., pp. 26-27; Michael D. Swaine, "China," in Zalmay Khalilzad (ed.) *Strategic Appraisal 1996*, RAND, Santa Monica, CA, 1996, pp. 203-205; and James Mulvenon, "Appendix One: Chinese Unconventional and Conventional Capabilities and Doctrine," in Swaine, "China and Arms Control," a paper prepared for the Council on Foreign Relations Workshop on Constructive Engagement with China, New York City, April 1995 (forthcoming).

<sup>15</sup> Rapid reaction units (RRUs) are "specially trained for different geographical and climatic conditions, [and are] geared to strengthen mobility and operational coordination in preparation for small-scale warfare on and around China's border areas." Bates Gill and Taeho Kim, *China's Arms Acquisitions from Abroad: A Quest for Superb and Secret Weapons*, SIPRI Research Report No. 11, Oxford University Press, Oxford, England, 1995, p. 64.

- A modest (by great power standards) blue water naval capability centered on a new generation of frigates and destroyers with improved air defense and fire control, more modern nuclear and non-nuclear submarines, a more capable naval air arm, a potent amphibious attack capability, improved submarine warfare and anti-submarine warfare capabilities, and possibly at least one carrier battle group.<sup>16</sup>
- A more versatile, advanced air force, with longer-range interceptor/strike aircraft, improved air defense (with airborne early warning (AEW) aircraft); extended and close air support, and overall improved power projection capabilities, with long-range transport and lift and mid-air refueling capabilities.
- A combined arms tactical operations doctrine utilizing more sophisticated C3I, early warning, and battle management systems, and both airborne and satellite-based assets.
- A relatively large number of accurate, solid-fueled, conventionally armed ballistic and cruise missiles with both fixed and mobile capabilities.

Among these objectives, some analysts believe that, as a result of the recent tensions over Taiwan, China's weapons programs will likely place an increased emphasis on acquiring capabilities designed to strengthen the credibility of Beijing's military options against the island, and to deter the U.S. from deploying aircraft carriers in an effort to counter such options. Specific military systems relevant to such capabilities include:

- Large amphibious landing craft, especially those capable of traversing wide, shallow mud flats as are found on the West coast of Taiwan
- Medium-range fighter/interceptors
- Short- and medium-range ballistic missiles
- Conventional attack submarines
- Improved C3I and carrier detection systems
- Long-range, stand-off, anti-ship weapons, including cruise missiles and anti-carrier torpedoes

In the area of unconventional weaponry, key modernization programs focus on improving the survivability of its nuclear missile forces by reducing the prelaunchtime period, acquiring less vulnerable basing modes, and making overall improvements in versatility, accuracy, range, guidance, and control.<sup>17</sup> Specific examples of such efforts include:<sup>18</sup>

<sup>16</sup> Such a naval force would be capable of engaging in what the Chinese term "offshore active defense" (*jinyangfangyu*). According to Liu Huaqing, former commander of the PLAN and a current member of the communist party's politburo standing committee, this concept means that "the PLAN should (eventually) exert effective control of the seas within the first island chain," which includes the Aleutians, the Kuriles, the Japanese archipelago, the Ryukyus, Taiwan, the Philippine archipelago, the Spratlys, the Paracels and the Greater Sunda Islands. For the full text of Admiral Liu's remarks, see *Joint Publications Research Service, China*, (JPRS-CAR-90-052), 16 July 1990, p. 14.

<sup>17</sup> Robert Norris, Andrew Burrows, Richard Fieldhouse, *Nuclear Weapons Databook Volume Five: British, French, and Chinese Nuclear Weapons*, (Boulder, Westview Press, 1994), p. 372.

<sup>18</sup> The following discussion of China's nuclear weapons program is taken primarily from Michael D. Swaine, *The Role of the Chinese Military in National Security Policymaking*, RAND, Santa Monica, MR-782-OSD, p. 38, and Swaine, "China and Arms Control."



- Land- and sea-based ICBMs with improved range, accuracy, survivability, and penetration against limited missile defense.<sup>19</sup>
- A new generation of solid-fuel, short and intermediate range ballistic missiles.
- Smaller warheads, which would theoretically allow a MIRV capability (Beijing might perceive a need for rapid increase in number of deployed warheads to overwhelm a Asia-based TMD or U.S.-based anti-ballistic missile (ABM) system).
- An improvement in China's nuclear weapons C3I through the acceleration of space capabilities and the continued importation of advanced communication technologies, like fiber-optics, B-ISDN lines, and microwave equipment.

This nuclear modernization program is apparently intended to serve two broad goals: 1) the maintenance of a deterrence capability against both nuclear and conventional threats from the major powers; and 2) the development of a tactical nuclear weapons capability for possible use in limited conflict scenarios.<sup>20</sup> At the same time, China's official nuclear defense strategy continues to stress a "no first use" doctrine and prohibits the use of nuclear weapons against nonnuclear powers.<sup>21</sup>

#### ACCOMPLISHMENTS

During the past decade, and especially within the past three years, China's military modernization program has witnessed significant progress in many of the above weapons systems and capabilities. These include:<sup>22</sup>

<sup>19</sup> One knowledgeable PLA analyst has stated that, by the year 2000, the Chinese intend to increase their ICBM force to about thirty missiles; base them with fixed launchers in hardened silos; fuel them with solid-fueled propellants, and outfit as many as possible with multiple independently targetable reentry (MIRV) warheads. See David Shambaugh, "China's Military: Real or Paper Tiger?" *The Washington Quarterly*, Vol. 19, No. 2, Spring 1996, Center for Strategic and International Studies and the Massachusetts Institute of Technology, Washington, D.C., p. 28.

<sup>20</sup> More specifically, these goals include the possible need to: 1) counter a future limited use of theater nuclear forces in a conventional attack; 2) deter an attack by highly accurate and powerful conventional stand-off weapons such as long range cruise missiles or precision-guided munitions; 3) permit warning strikes to shake or undermine an enemy's determination to launch nuclear strikes, destroy his strategic intentions, and thus contain nuclear escalation; or 4) negate the neutralization of China's deterrent capability allegedly presented by theater missile defenses (TMDs) or space-based ballistic-missile defenses (BMDs). I am indebted to Iain Johnson for this information.

<sup>21</sup> These developments suggest that China's nuclear deterrence doctrine may be shifting from an emphasis on the maintenance of a minimal strategic force sufficient to inflict what is perceived to be unacceptable damage on a handful on enemy cities with a simple, undifferentiated countervalue second strike ("city busting") to the attainment of a limited yet more sophisticated range of strategic and substrategic capabilities to deter any level of nuclear conflict, and in a nuclear war to contain escalatory pressures. The latter doctrine (often termed "limited deterrence") requires a nuclear force capable of hitting a range of countervalue and counterforce targets, including enemy strategic nuclear missiles, conventional military bases and troop concentrations, transport hubs and command and control centers, etc. For further details, see Alastair I. Johnston, "China's New 'Old Thinking': The Concept of Limited Deterrence," *International Security*, Vol. 20, No. 3, Winter 1995/1996.

<sup>22</sup> Detailed descriptions of these and other recent or imminent advances can be found in Swaine (1995), and James Mulvenon, "Appendix One: Chinese Unconventional and Conventional Capabilities and Doctrine," in Swaine, "China and Arms Control," a paper prepared for the Council on Foreign Relations Workshop on Constructive Engagement with China, New York City, April 1995 (forthcoming).

*PLAAF*

- Purchased 50 advanced long-range interceptors (Russian Su-27), and reached co-production agreement to assemble and eventually manufacture approximately 200 additional aircraft.
- Purchased 10 long-range transport aircraft (Russian Il-76), and might have reached agreement to import an additional 15.
- Purchased 24 transport helicopters (Russian Mi-17).
- Developed prototype of foreign assisted, multirole fighter-bomber (J-10).
- Improved the design of the J-8II fighter and converted several to midair refueling.
- Converted 5 H-6 bombers to midair refueling tankers, with foreign assistance.
- Improved airborne naval strike and ground attack capabilities made incremental advances in air defense systems.<sup>23</sup>

*PLAN*

- Added around 20 principal surface combatants, including, most notably, a few hybrid-designed advanced guided missile destroyers (Luhu-class) and guided missile frigates (Jiangwei-class) containing foreign systems.
- Produced new types of fast attack (Houxin and Houjian-classes), coastal patrol (Huludao-class) and resupply craft (Dayun-class).
- Produced additional amphibious and mine warfare ships, including large capacity tank landing ships (Yukang and Yuting-class LSTs).
- Improved indigenous (Ming-class) and hybrid foreign assisted (Song-class) submarines; purchased four advanced diesel anti-surface and anti-submarine warfare submarines (Russian Kilo-class).
- Developed prototype of indigenous naval fighter-bomber (JH-7).

*Ground Forces*

- Trained and equipped 3-5 divisions as rapid reaction units; acquired more modern trucks, a few light attack helicopters and modern artillery.
- Improved living conditions for troops (i.e., food, wages, and housing); improved training at small unit (squad to battalion) level.
- Expanded combined arms and joint training exercises, primarily to regimental level.

*Strategic Forces*

- Serial production and deployment of improved land-based, mobile, solid-fueled, short-range, surface-to-surface ballistic missiles (M-11 and M-9).
- Deployment of 10-35 medium-range ballistic missiles (DF-21).
- Ongoing development of a new-generation of antiship missiles (AshM and C-801) and submarine-launched ballistic missile (JL-1/CSS-N-3).

<sup>23</sup> Arnett, "Military Technology: The Case of China," pp. 380-381.

- Possible advances in research on MIRV capabilities.
- Possible improvements in C3I capabilities.

The above listing suggests that China has made significant advances in its military modernization program in recent years. The most notable advances in indigenous weapons and support systems have occurred in the areas of ballistic missiles, rapid reaction units, C2 and air and naval support of ground forces associated with combined arms operations, and some surface and subsurface naval combatants. However, the most significant advances in sophisticated systems and high-tech subsystems have largely taken place as a result of costly acquisitions from foreign, primarily Russian, sources.<sup>24</sup> Moreover, all of the above advances occurred from a relatively low baseline, and are still far from the capabilities required by China's overall modernization program. The last section identifies and assesses the major economic, technological, and structural requirements for the attainment of China's modernization objectives.

#### FUTURE REQUIREMENTS AND OBSTACLES TO MODERNIZATION

As the above discussion clearly shows, the Chinese will need to acquire, either indigenously or from foreign sources, a wide variety of modern or highly advanced equipment and systems to fully implement its military modernization program. Such a diverse array of military systems requires at least five critical sets of support structures, capabilities and resources:

- The sustained, high priority endorsement of the senior leadership.
- Ample financial resources.
- A well-run, innovative and robust R&D system.
- A technologically advanced and quality-driven procurement and manufacturing base.
- An efficient organizational and managerial infrastructure to integrate and coordinate the above elements.

In each of these areas, however, China's military modernization effort confronts significant and in some cases very enduring obstacles or problems that will likely impede continued progress over the long term, possibly forcing efforts at radical restructuring or redesign and/or major trade-offs in resource allocations.

#### LEADERSHIP PRIORITIES

Although China's senior leadership strongly supports military modernization, it has not accorded the effort a high priority in China's overall economic reform and development program. Under the reforms, China has experienced a general reordering of national security goals, toward a primary emphasis on civilian economic, technological, and social development through market incentives and

<sup>24</sup> One source estimates that the total cost of China's purchase of Russian weapons and equipment during the period 1991-1994 was \$4.5-6 billion. One should add to this the cost of the more recent Su-27 co-production agreement, which is estimated at \$3 billion. The same source estimates that China has purchased \$2-3 billion worth of military equipment and technology from Israel since the early 1980s. See Bates Gill and Taeho Kim, *China's Arms Acquisitions from Abroad: A Quest for Superb and Secret Weapons*, SIPRI Research Report No. 11, Oxford University Press, Oxford, England, 1995, pp. 55, 99.

an opening to the outside, and a subordinate emphasis on traditional military-related objectives associated with the defense of national sovereignty and the attainment of major power status. This program places a priority on establishing a more efficient, productive, and stable industrial and technological base, deemed necessary for the attainment of great power status in the next century. Indeed, military modernization ranks fourth in China's Four Modernizations strategy, behind the development of science, technology, and industry.

This prioritization derives from an increased dependence, in the aftermath of the virtual collapse of communist ideology worldwide and within China, on sustained civilian economic growth and rising living standards as a guarantor of regime legitimacy and social stability. It also reflects a general belief that China's external security environment does not present any major, imminent threats requiring a "crash" military modernization program. In general, this program has primarily involved a steady but gradual and largely low-key level of effort.

The relatively low priority accorded to military modernization by China's leadership has produced several major adverse consequences for the other requirements of the modernization program. For example, and perhaps most notably, it has contributed greatly to the seriously underfunded nature of the program, as discussed below. It has also stimulated an apparently excessive shift toward the civilianization and marketization of China's defense industry, resulting in a major drop in military production levels. Also, economic reforms and an emphasis on civilian-led growth have led to the continuing decentralization of the defense industry hierarchy, exacerbating an overall lack of coordination in R&D and procurement policy.<sup>25</sup>

Of course, one could argue that China's senior leadership might eventually reverse the above prioritization, once it believes China has attained a relatively advanced level of civilian economic development, and devote increasingly larger resources and energies to military modernization. Yet such a re-prioritization would almost certainly generate significant controversy within the Chinese leadership and strategic community, given the obvious instabilities it would likely produce in Asia and beyond. Moreover, one should not blithely assume that the Chinese government will have increasingly larger levels of revenue to devote to military modernization over the long term, as discussed below.

#### FINANCIAL RESOURCES

As is widely known, it is extremely difficult to determine current levels of Chinese military spending. Estimates vary widely, from the official figure of \$7.5 billion for 1995–1996 to a highly inflated PPP-based estimate of nearly \$150 billion.<sup>26</sup> Much of the confusion derives from the difficulties presented by efforts to accurately determine the cost, in U.S. dollars, of Chinese military items, and because many categories of military revenue and expenditure are not

<sup>25</sup> Bitzinger and Gill, "Gearing Up for High-Tech Warfare?" p. 18.

<sup>26</sup> Charles Wolf, Jr., K.C. Yeh, Anil Bamezai, Donald P. Henry, and Michael Kennedy, *Long-Term Economic and Military Trends 1994–2015: The United States and Asia*, MR-627-OSD, RAND, Santa Monica, 1995, p. 14.

contained in the official defense budget.<sup>27</sup> However, as David Shambaugh observes, a consensus is beginning to emerge among knowledgeable PLA specialists and defense analysts that China's total military spending probably falls within the \$28-\$36 billion range, or four to five times the official figure.<sup>28</sup> This level of military spending is considerably less than the current Japanese defense budget, which exceeds \$50 billion.

Regardless of the exact level of spending, the overall trend in Chinese defense spending over the past decade or so suggests that expenditures are increasingly annually at a high rate. For example, the official figure increased by nearly 160% from 1986 to 1994 in nominal terms.<sup>29</sup> Most of this increase has been eaten up by inflation or currency devaluations, however. When measured in real terms, official Chinese military expenditures have barely kept level during the past decade.<sup>30</sup> Although the nominal level of official defense spending has increased annually at double-digit figures since 1988, real growth has been approximately 40% during that period.<sup>31</sup> The Chinese defense budget has also remained steady as a percentage of GNP and total government expenditures (see Figure 1) We should note that other sources indicate significantly lower levels of defense spending as a percentage of GNP and total government expenditures than what is depicted in Figure 1. For example, Shambaugh, ("China's Military," 1996, p. 21), offers figures of 9.9% of total state expenditures and 1.5% of GNP.

Will such spending levels prove sufficient to support the cost of implementing China's entire military modernization program? Even using the above mentioned, generally accepted unofficial calculations of government revenues, many analysts believe that spending has thus far proven inadequate to cover the costs incurred in housing, feeding, training, and equipping a 3.2 million man force.<sup>32</sup> Moreover, the cost of modernization will almost certainly increase significantly in the years ahead, as the PLA is faced with the need to develop or acquire larger amounts of more sophisticated weaponry and support systems. One expert study of the problem has stated that China's military-industrial complex will require a "massive infusion" of investment (both financial and technological) to improve both human and material resources.<sup>33</sup> Costs

<sup>27</sup> For example, the defense budget does not include special State Council allocations to the military (usually used to purchase foreign weaponry), arms sale revenues, demobilization and pension costs, maintenance of militia, reserves, and the para-military People's Armed Police, commercial earnings from military enterprises, defense industrial conversion expenditures, military-related R&D conducted by non-military ministries, and R&D for new weapons and equipment carried out by non-military defense research and production facilities. See Shambaugh, "China's Military: Real or Paper Tiger?" p. 21; and Bitzinger and Gill, "Gearing Up for High-Tech Warfare?" p. 15

<sup>28</sup> Shambaugh, "China's Military: Real or Paper Tiger?" p. 23.

<sup>29</sup> *Ibid.*

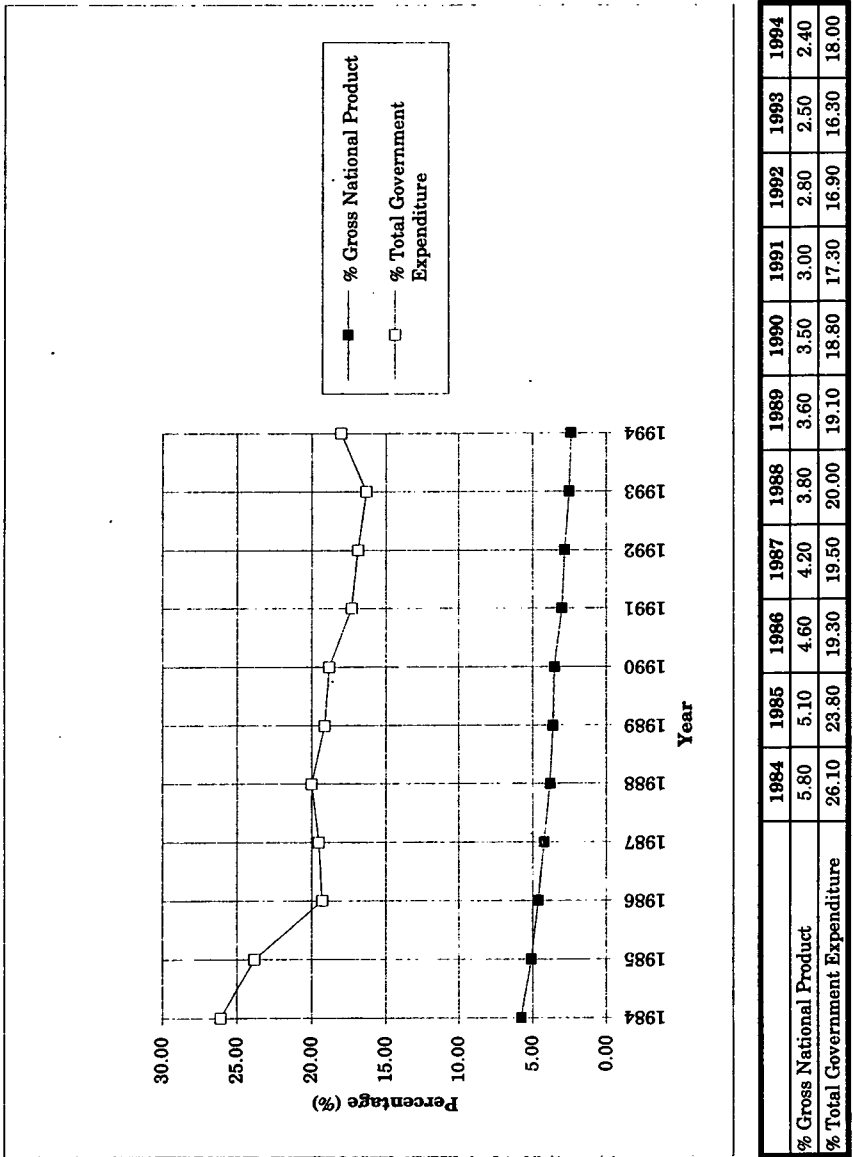
<sup>30</sup> Bitzinger and Gill, "Gearing Up for High-Tech Warfare?" p. 15. Also, a GAO Report on the Chinese military issued in 1995 stated that, when adjusted for inflation, the defense budget only increased 4% in real terms. See U.S. General Accounting Office Report to Congressional Committees, *National Security: Impact of China's Military Modernization in the Pacific Region*, Washington, D.C., GAO, 1995, p. 16.

<sup>31</sup> Shambaugh, "China's Military: Real or Paper Tiger?" p. 21.

<sup>32</sup> Most of the budget increases have gone to increasing salaries and improving living conditions for PLA personnel (especially officers). See Shambaugh, "China's Military: Real or Paper Tiger?" p. 23.

<sup>33</sup> John Frankenstein and Bates Gill, "Current and Future Challenges of Chinese Defense Industries: Organization, Acquisitions, and Modernization, paper presented at the CAPS/CAPP

**Figure 1. Chinese Military Expenditure as a Percentage of GNP and Total Government Expenditure, 1984-1994.**



Source: Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1995*, p. 58.

will be enormous regardless of whether China relies increasingly on foreign purchases of technology and equipment or seeks to provide the majority of its needs domestically, by overhauling its seriously flawed and obsolete R&D and defense industry sectors (see below). And this of course assumes that funding alone could solve many of China's modernization difficulties, which it cannot, as also discussed below.

Can defense spending be increased dramatically to resolve the short-term insufficiencies and long-term escalating costs of modernization? As suggested above, any dramatic increase in spending would run the risk of destabilizing China's regional security environment by alarming nearby states and generating an arms race among several states. In addition, however, one cannot assume that the Chinese government will be able to greatly increase defense spending over the long term, even if China's aggregate growth levels remain high.

Continued rapid economic development in China will probably require the commitment of an increasingly larger share of public income to non-military purposes, to defray the enormous costs incurred in sustaining high growth. Such costs include social welfare expenses to compensate for the loss of support services formerly paid by the state sector (e.g., health, education, housing, etc.), readjustment costs for unemployed or poorly trained workers, huge infrastructure, energy, and environmental costs associated with rapid growth, and government payments to alleviate socioeconomic disparities across provinces and regions.

In order to cover these civilian costs and also fund military modernization, the Chinese government will need to either shift revenues earmarked for many of the above civilian expenses to the military or significantly increase its aggregate revenues by fully implementing a variety of tax reforms, so as to more effectively tap both public and private income. The latter effort is currently underway. If it fails or takes an inordinately long period of time to implement, leadership disputes could emerge over civilian versus military funding priorities, thus hindering the modernization effort.

Other means of increasing China's level of defense spending include: a) profits from defense conversion; b) profits from military enterprises, c) profits from increased arms sales; and d) access to foreign funds and technology.

Defense conversion (i.e. the shifting of China's huge number of defense industrial plants to the production of commercial goods for profit) faces many problems associated with the defense industry manufacturing base. These include weak management, low product quality, insufficient or incompetent market research, over-priced or unusable goods, inadequate economies of scale, and lack of cost- and consumer-consciousness.<sup>34</sup> These difficulties are similar to many of the woes afflicting China's state-owned enterprises. Although large segments of some defense industries (e.g., electronics) have been nominally converted to civilian, commercial production, the result has been reduced military production levels and low or non-existent profits. Over time, a much smaller and efficient indus-

Conference on "The PLA Towards 2000," 13-15 July 1995, Island Shangri-la Hotel, Hong Kong, p. 12.

<sup>34</sup> Ibid., pp. 13-14.

try will likely develop, but the process will likely prove long and arduous, and will depend as much on political and military developments as on economic ones.<sup>35</sup>

It was precisely because of China's national development priorities and associated military funding problem that the military was permitted (indeed encouraged) to engage in private business activities, beginning in the late 1980s. The military's approximately 20,000 private ventures are involved in a wide variety of activities, from expanded agricultural and sideline production to the production of civilian manufactured goods in defense factories and various services (e.g., hotels, medical care, trade, etc.). Hence, the type of commercial units involved far exceed those of the defense conversion sector. In fact, the largest number of military enterprises are in transportation, vehicle production, pharmaceuticals, hotels, property development, textile production, and mining.

Estimates of total earnings and profits from private military ventures vary widely. The best estimate of the former is \$6 billion to \$9 billion, or approximately 1%–1.5% of total GDP. Of this total, the military's annual commercial profits are approximately \$1.2 billion to \$1.8 billion. This equals approximately 15% of the total official defense budget of \$7.5 billion, and is of course a far smaller percentage of the larger, unofficial estimates of defense spending. Of total profits, only \$500 million to \$730 million is actually received for military use, since the majority of a venture's earnings is reinvested into the venture.<sup>36</sup> Within the military proper, most earnings are spent on training and improving the living standards of troops. Only a very small amount of business earnings are used for weapons purchases. These are primarily foreign exchange earnings of trading ventures, paid to overseas suppliers. Thus, when compared to the likely enormous costs involved in military modernization, it is difficult to assert that PLA enterprises will provide a major source of income in the years ahead.

A similar conclusion can be drawn in the case of Chinese arms sales and access to foreign funds and technology. Chinese arms exports have declined precipitously since peak levels reached in the mid-1980s, when China sold weapons to both sides during the Iran-Iraq War. The post-Cold War international marketplace in weapons is now "... an extremely competitive place where the troubled defense industry will have great difficulties appealing to potential customers."<sup>37</sup> Chinese access to foreign funds and technology for military use confronts a wide variety of problems. As the above-cited expert study states:

For the recipient, China, the financial resources and acquisitions strategies available to [the military-industrial complex] for foreign purchases are not capable of supporting widespread acquisitions of equipment and technology. Rather, limited by domestic financial constraints and in keeping with traditional Chinese development strategies, foreign purchases will be kept small with an eye to reverse engineering or integration into indigenous processes. Di-

<sup>35</sup> *Ibid.*, pp. 14–15.

<sup>36</sup> I am indebted to Tai Ming Cheung for these estimates.

<sup>37</sup> Frankenstein and Gill, "Current and Future Challenges of Chinese Defense Industries," pp. 15–16.



rect foreign capital investment in the [military-industrial complex] seems highly unlikely, both from the Chinese and potential investors' perspectives.<sup>38</sup>

The above suggests that one probably cannot expect to see major leaps forward in Chinese defense spending in the future, unless a drastically heightened external threat environment forces a major reallocation of spending priorities in a variety of areas. Thus, China's military R&D and manufacturing base will probably not receive enormous inputs of capital, even over the long term. But these sectors suffer from other problems in addition to the above financial constraints, including organizational problems.

#### R&D, MANUFACTURING, AND ORGANIZATIONAL CAPABILITIES

As the above discussion clearly indicates, China's military R&D, manufacturing, and organizational structure is plagued by a variety of problems that will likely hinder the full implementation of China's military modernization program. In addition to an insufficiency of funds and lagging production due to the diversion of energies away from defense production,<sup>39</sup> these include:

- Excessive adherence to self-reliance as a guiding principle.
- Lack of horizontal integration.
- Separation from the civilian commercial sector.
- Lack of skilled experts, managers, and labor.
- Poor infrastructure.
- Technology absorption problems.<sup>40</sup>

China's stress on self-reliance in high-technology areas stems from both a deeprooted cultural resistance to foreign ideas and technologies as well as a more recent Chinese penchant for secrecy. These traits place China at an increasing disadvantage in its efforts to modernize the PLA, given the growing globalization of advanced technologies used in the military field.<sup>41</sup>

China's R&D and manufacturing structure is marked by excessive formalization, lack of interconnectedness, and little horizontal communication to facilitate transmission of expertise, innovative ideas, or scientific results.<sup>42</sup> Moreover, severe limits exist on the ability to employ "copy production" or reverse engineering to high-technology products or their materials and manufacturing processes. Such products and processes require increasingly sophisticated electronics and engineering systems, neither of which the Chinese possess to any significant degree.<sup>43</sup>

In addition, economic reform makes military production units less attractive employers than private firms which can offer higher

<sup>38</sup> *Ibid.*, pp. 16-17. The authors add (p. 16) that "[E]ven if these barriers should be overcome, China cannot expect to receive top-of-the-line equipment and technologies due to sanctions or national security considerations invoked by potential suppliers. Sino-Western military technology cooperation will continue to be sporadic, limited, and less than satisfactory to both sides."

<sup>39</sup> It is estimated that Chinese defense production is currently at about 10 percent of capacity. See *ibid.*, p. 9.

<sup>40</sup> This list is drawn from Frankenstein and Gill, "Current and Future Challenges of Chinese Defense Industries," p. 7.

<sup>41</sup> Bitzinger and Gill, "Gearing Up for High-Tech Warfare?" p. 21.

<sup>42</sup> Arnett, "Military Technology: The Case of China," p. 370.

<sup>43</sup> *Ibid.*, p. 369.

salaries and better locations. As a result, the R&D and defense industry sectors reportedly suffer from low prestige, and morale.<sup>44</sup>

Organizational and infrastructure problems of the Chinese R&D and defense sectors include: a) a lack of central oversight and interconnectedness, with no true central oversight directing defense planning and rationally allocating resources to military R&D programs that show the most promise; b) duplication; c) overproduction; and d) poor management and entrepreneurial skills.<sup>45</sup> Regarding the last point listed above, China's effort to advance the development of military-related technologies through "spin-ons" from the commercial sector presents many problems, including a long-established lack of horizontal integration between military and civilian enterprises; decentralized control over resources and decisions; and the fact that patterns of financial and intellectual investment in technology development are increasingly determined by the market, and not necessarily by the demands of military capability and national security.<sup>46</sup>

### CONCLUSION

The above analysis clearly indicates that an enormous gap remains between China's military modernization goals and means. Some of the very serious obstacles and problems confronting this effort, such as production inefficiency, low skills, training, and morale, a relatively low emphasis on defense modernization, and even, to a certain extent, inadequate funding, can be at least partly remedied over the short- to medium-term. Moreover, trade-offs can occur in funding priorities and technology sourcing, etc. But many of the above impediments to modernization are systemic to China's political and economic structures and will require a very long time to overcome. Hence, China's military modernization efforts will likely remain "uneven and piecemeal."<sup>47</sup>

<sup>44</sup> *Ibid.*, pp. 371-372.

<sup>45</sup> Bitzinger and Gill, "Gearing Up for High-Tech Warfare?" pp. 17-18. The authors state (p. 18) that China's military-industrial complex has remained vertically isolated, both internally and in relation to civilian industry—for the past 40 years and "... is only now beginning to experiment with intra- and inter-sectoral coordination and the sharing of information and expertise." This has contributed to a lack of innovation and absorption of commercial technology (spin-on).

<sup>46</sup> *Ibid.*, p. 20.

<sup>47</sup> *Ibid.*, p. 7.

# CHINA: POPULATION DYNAMICS AND ECONOMIC IMPLICATIONS

By Judith Banister\*

## CONTENTS

	Page
Summary .....	339
Introduction .....	341
Population Size and Growth .....	341
Age Structure and Its Implications .....	343
Population Distribution and Urbanization .....	349
Migration and the Floating Population .....	351
Sex Ratio Trends .....	353
Conclusions .....	356
Bibliography .....	358

## TABLE

Table 1. PRC Vital Rates as Reconstructed, 1987-1995 .....	343
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## FIGURES

Figure 1. China's Rural Population Age Structure, 1990 .....	344
Figure 2. China's Urban Population Age Structure, 1990 .....	345
Figure 3. China Estimated Midyear Population Structure, 1996 .....	347
Figure 4. China, Ages 0-14 Provincial Population Sex Ratios, 1990 .....	355

## SUMMARY

This article briefly describes broad demographic trends in the China mainland during the 1990s and beyond, and discusses how population conditions relate to economic trends. Mortality is low, which means that expectation of life for males and females is high, and the death rate is low. Family planning policy has been more stringently implemented in recent years. Fertility has dropped since 1987 to only 1.9 births per woman for the People's Republic of China (PRC) as a whole. This is below replacement level fertility, but the population continues to grow because the age structure is now unusually concentrated in the peak childbearing ages, and because China's age distribution is still young. The population growth rate remains close to one percent a year in the 1990s.

Because of rapid shifts in fertility and mortality in the past, the PRC has a highly skewed age structure today. Relatively low fertility since the mid-1970s has produced comparatively small cohorts of children through the late teens. High mortality in the past reduced the sizes of the now-elderly age groups. Therefore, China has low child dependency, low aged dependency, and a bulge in the

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population in the twenties through the forties. In the current decade and the first decade of the next century, the PRC age structure will continue to be concentrated in the most productive working ages. This age distribution promotes productivity, savings, investment, and rapid economic growth, and minimizes consumption needs for education and health care.

Employment prospects are mixed. On the one hand, the age groups of entry into the labor force are getting smaller or stabilizing, due to low fertility in the late 1970s and the 1980s. This is especially true in urban areas. This trend tends to reduce unemployment among entry-level workers. Another favorable prospect is that continuation of even moderate economic growth is likely to generate enough new jobs for the additional members of the labor force age groups in this decade and beyond. On the other hand, China today has a huge surplus labor force in agriculture and redundant staff in the state sector as well. It is unlikely that the PRC will generate enough productive jobs to employ the millions of workers currently in surplus.

After decades during which China's leadership blocked further urbanization, the economic reform period has included relaxation of these restrictive policies. The urban proportion of China's population thus increased from 21 percent in the 1982 census to 26 percent in 1990 and 29 percent in 1995. Urbanization has been very uneven, with some provinces barely affected and some urbanizing rapidly. The growing urban part of the PRC population has been swelled both by reclassification of rural townships and counties as urban towns and cities, and by net rural-to-urban migration.

Population movement has increased in China during the late 1980s and early 1990s. Much of the movement is work-related. The PRC still places restrictions on permanent migration from rural to urban places, so an increasing proportion of the movement is circular or seasonal migration, and short-term as well as long-term temporary migration. Data on population movement continue to be severely problematic, partly because of definitional confusion and partly because many migrants avoid registering their moves in order to evade controls.

China is experiencing an increasing shortage of young girls compared to the numbers of boys. In the PRC case, there seems to be continuation of the traditional practices leading to excess female infant mortality (infanticide, abandonment), as well as continuation of severe neglect of some girls just beyond infancy, leading to their untimely deaths. In addition, the practice of selective abortion of female fetuses escalated in the late 1980s and presumably since then, due to the increasing availability of fetal sex-detection technology. There is no dearth of girls in some provinces, while in the core provinces of Han China Proper, the situation is most severe.

On the whole, the China mainland has achieved advanced demographic conditions for a developing country. Population growth is low, and poses little problem of providing for the increasing population given the robust economic growth taking place. An age structure concentrated in the most productive ages, gradual urbanization, and increasing labor migration all are conducive to the economic transformation of the China mainland.

## INTRODUCTION

The People's Republic of China (PRC) has 21 percent of the world's total population. The huge population of the China Mainland impacts PRC economic trends and potential, in some ways constraining and in other ways enhancing China's economic growth and effect on the world economy. When the PRC chooses to open up and project itself outward, as has been the case in the period of economic reform since 1978, it has an enormous impact on world trade and world politics, in part because its population is so large. In previous centuries, most governments saw the size of the population they commanded as a direct determinant of their global power and prestige. Today we know that technology, education, stage of development, societal organization, access to information, popular attitudes and customs, alliances, and leadership are important too. In spite of these other influential factors, we ignore the world's most populous countries such as China at our peril.

This paper provides a brief overview of salient population trends and characteristics of the PRC in the last decade of the twentieth century and the first decade of the new millennium. The implications of the current and evolving age structure are explored. The author analyzes recent trends and likely prospects in migration and urbanization. The paper emphasizes the interactions between these developments and economic change. Rapid population transitions are highlighted, including the increasingly severe dearth of girls at young ages.

## POPULATION SIZE AND GROWTH

Because of societal chaos, organizational breakdown, violence, and war, China's population grew slowly during the century before the founding of the PRC. But in the 1950s, the new government attacked the major causes of death and attempted to ensure access to land and food for the people. The associated drop in the death rate unleashed several decades of rapid population growth, interrupted only by the Great Leap Forward famine of 1958-1961.<sup>1</sup> After the Cultural Revolution of the late 1960s, the PRC government launched a determined family planning program that rapidly became compulsory. The level of fertility (births) dropped precipitously from a total fertility rate (TFR)<sup>2</sup> of 5.8 births per woman in 1970 to 2.8 in 1977.<sup>3</sup> This drop in fertility reduced the rate of population growth from 2.7 percent in 1970 to 1.4 percent in 1977. Thereafter, despite increased coercion, the TFR fluctuated in the range of 2-3 births per woman for over a decade, while the annual population growth rate ranged from 1.1 to 1.8 percent a year.

Most recently, the PRC birth rate and population growth rate have declined since 1987, as shown in Table 1. Tightened controls on childbearing as well as spacing requirements for those few second or higher order births that are allowed have slowed population

<sup>1</sup>Banister, Judith. 1987. *China's Changing Population*. Stanford, Cal.: Stanford University Press.

<sup>2</sup>The total fertility rate is the average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children according to the annual age-specific fertility rates of a certain time period.

<sup>3</sup>Chen Shengli. 1984. "Fertility of Women During the 42-Year Period from 1940 to 1981." In China Population Information Centre. *Analysis on China's National One-per-Thousand-Population Fertility Sampling Survey*. Beijing, pp. 32-58.

growth in the most recent decade from 1.7 percent in 1987 to 1.1 percent in 1995. Urbanization, modernization, and rapid economic changes have probably also played a part in reducing fertility.

The available information suggests that the PRC has completed its demographic transition from high death and birth rates to low death and birth rates. For most countries of the world, this transition has proved permanent and irreversible, though in some countries a temporary reversion to higher fertility has been seen, for example in the United States postwar baby boom. In the PRC, the birth rate is held down in part by compulsion. Survey respondents state, on average, a preference for more children than they are allowed and more than they have.<sup>4</sup> Therefore, it is possible and even likely that fertility would rise if compulsory family planning diminished in intensity or was abolished. Indeed, during the mid-1980s and late 1980s, there was a period of popular backlash against 1983 excesses in coercive family planning. The government eased the intensity of its implementation of compulsory birth limitation during 1984–1987. The total fertility rate and the birth rate rose until the government began its current crackdown. China's family planning policy requires late marriage, apparently says little or nothing about contraceptive use before the first birth, specifies use of an intrauterine device (IUD) after a first birth in most cases, and usually requires sterilization of one partner after the second birth.

Most couples in the PRC are required to stop childbearing after one or two births. A 1989 Chinese source stated that urban Han Chinese couples were required to cease childbearing after one child, with minor exceptions. Rural Han couples were subject to different rules in different provinces. In 7 provinces, they were required to stop at one child. In 6 provinces, all rural Han couples were allowed two children. And in 16 provinces, rural couples were told to cease childbearing after one child if the firstborn was a son, but were allowed to have two births if the firstborn was a daughter.<sup>5</sup> The latter policy was implemented to deal with the strong demand for a son among rural couples in China. Total compliance with the stated policies in 1990 would have resulted in a TFR of 1.5 births per woman for the PRC.<sup>6</sup> The fact that the TFR was instead around 2.2 suggests both some noncompliance and some flexibility or slippage in family planning policy implementation on the ground. We have little information on whether provinces have changed their birth limits since 1989, though enforcement seems to be more stringent all the time.

<sup>4</sup> See, for example, Hardee-Cleaveland, Karen. 1988. "Desired Family Size and Sex Preference in Rural China: Evidence From Fujian Province." Ph.D. Thesis, Cornell University; Jichuan Wang. 1990. "Women's Preferences for Children in Shifang County, Sichuan, China." *Asian and Pacific Population Forum*, Vol. 4, No. 3, Fall 1990, pp. 1–12, 27–28; and Xu Gang and Yu Jingwei. 1991. "An Analysis of Fertility Preferences of Chinese Women." In *Fertility in China—Proceedings of the International Seminar on China's In-Depth Fertility Survey, Beijing, February 13–17, 1990*. Voorburg, The Netherlands: International Statistical Institute, pp. 177–186.

<sup>5</sup> Liu Leiqi. 1989. "Jihua shengyu zongshu" (A summary of family planning). *Zhongguo baike nianjian, 1989* (Encyclopedic Yearbook of China, 1989). Beijing: Zhongguo dabaikewanshu chubanshe, pp. 325–326.

<sup>6</sup> Banister, Judith. 1994. "The Size, Control, and Composition of China's Population." In Zhiling Lin and Thomas W. Robinson, eds. *The Chinese and Their Future: Beijing, Taipei, and Hong Kong*. Washington, D.C., AEI Press, pp. 113–133.

TABLE 1. PRC Vital Rates as Reconstructed, 1987-1995.

Year	Total fertility rate	Crude birth rate	Crude death rate	Population growth rate (percent)	Midyear population (millions)
1987 .....	2.8	24.9	7.5	1.7	1,084.7
1988 .....	2.5	22.1	7.5	1.5	1,101.9
1989 .....	2.4	22.2	7.5	1.5	1,117.8
1990 .....	2.2	21.1	7.5	1.4	1,133.7
1991 .....	2.2	21.0	7.4	1.3	1,148.8
1992 .....	2.0	19.6	7.3	1.2	1,163.4
1993 .....	2.0	19.3	7.2	1.2	1,177.3
1994 .....	1.9	18.9	7.1	1.1	1,191.1
1995 .....	1.9	18.2	7.0	1.1	1,204.4

Note: Reconstructed and modeled at the International Programs Center, U.S. Bureau of the Census, based on China's 1982 and 1990 census data, birth rates from the State Statistical Bureau's Annual Survey of Population Change, and preliminary results from the 1995 one-percent sample census.

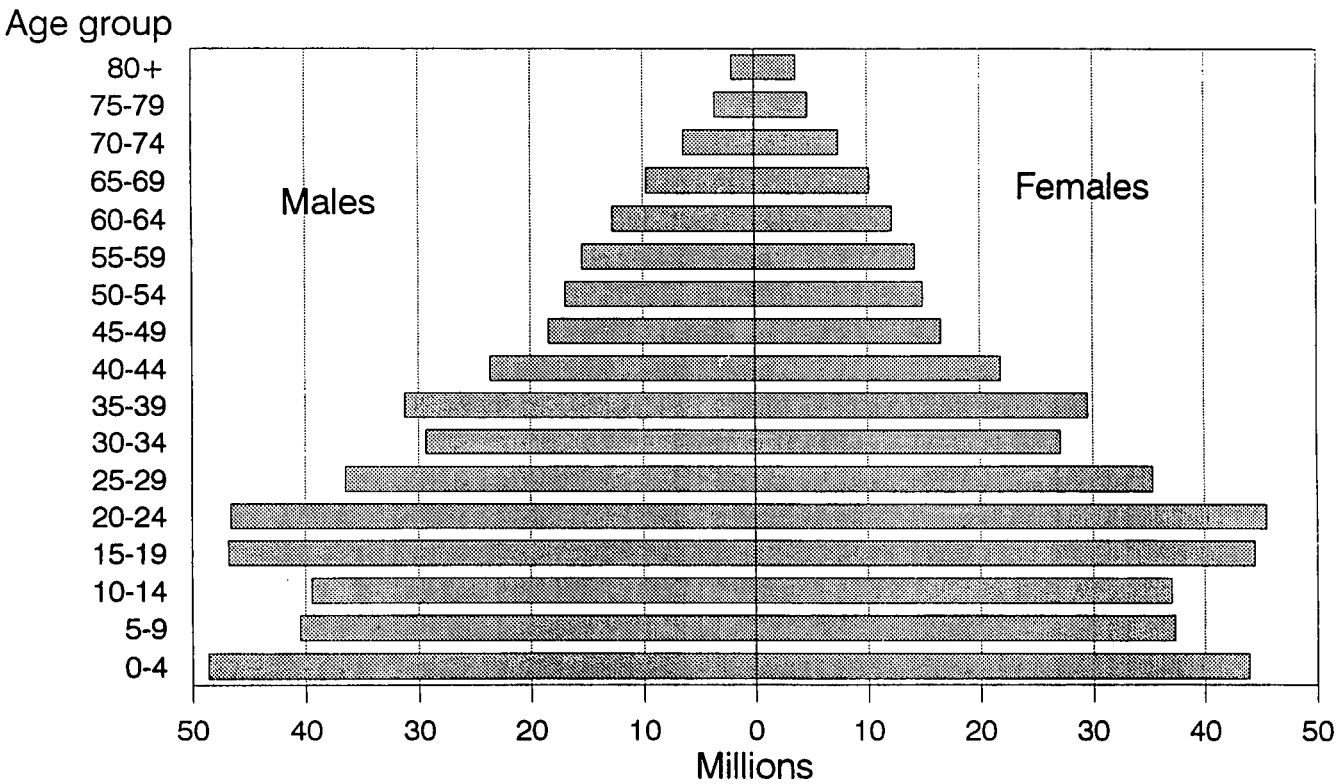
Mortality conditions continued to improve for both sexes at most ages in the 1970s and 1980s, based on the best national life tables available for China, applicable to the years 1973-75, 1981, and 1990.<sup>7</sup> There was dramatic improvement in survival chances for children above infancy. Young adults experienced modest gains in survival. There were greater reductions in mortality among adult women than men. The available information suggests that there was little or no improvement in survival among the elderly and among infants. Life expectancy rose in China's city and town populations for both sexes in the 1980s. Both males and females in the rural population as a whole experienced measurably improved survival chances in the nine-year period 1981 to 1990. Usable mortality data for the period since 1990 are so far lacking. We assume further gradual mortality decline in the 1990s.

#### AGE STRUCTURE AND ITS IMPLICATIONS

Figures 1 and 2 show the population age-sex structures reported for the rural and urban populations of the PRC in the 1990 census. Both population pyramids reflect high mortality in the pre-1949 decades that produced comparatively small surviving cohorts in the 1990 age groups 40-44 and older. Mortality decline in the 1950s with continuing high fertility resulted in huge cohorts born in the 1950s, 1960s, and early 1970s with larger proportions surviving than in earlier decades and centuries. The bulge in the urban and rural age pyramids at ages 15-19 and in the twenties and thirties was caused by high fertility, low mortality, and rapid population growth from the 1950s through the mid-1970s, followed by the fertility declines and low fertility of the 1970s and beyond. In addition, the bulge in the 1990 urban population age structure in the young working ages was augmented by recent rural-to-urban migration of young adult workers.

<sup>7</sup> Banister, Judith. 1992. "China: Recent Mortality Levels and Trends." Presented at the annual meeting of the Population Association of America, Denver, May 1992.

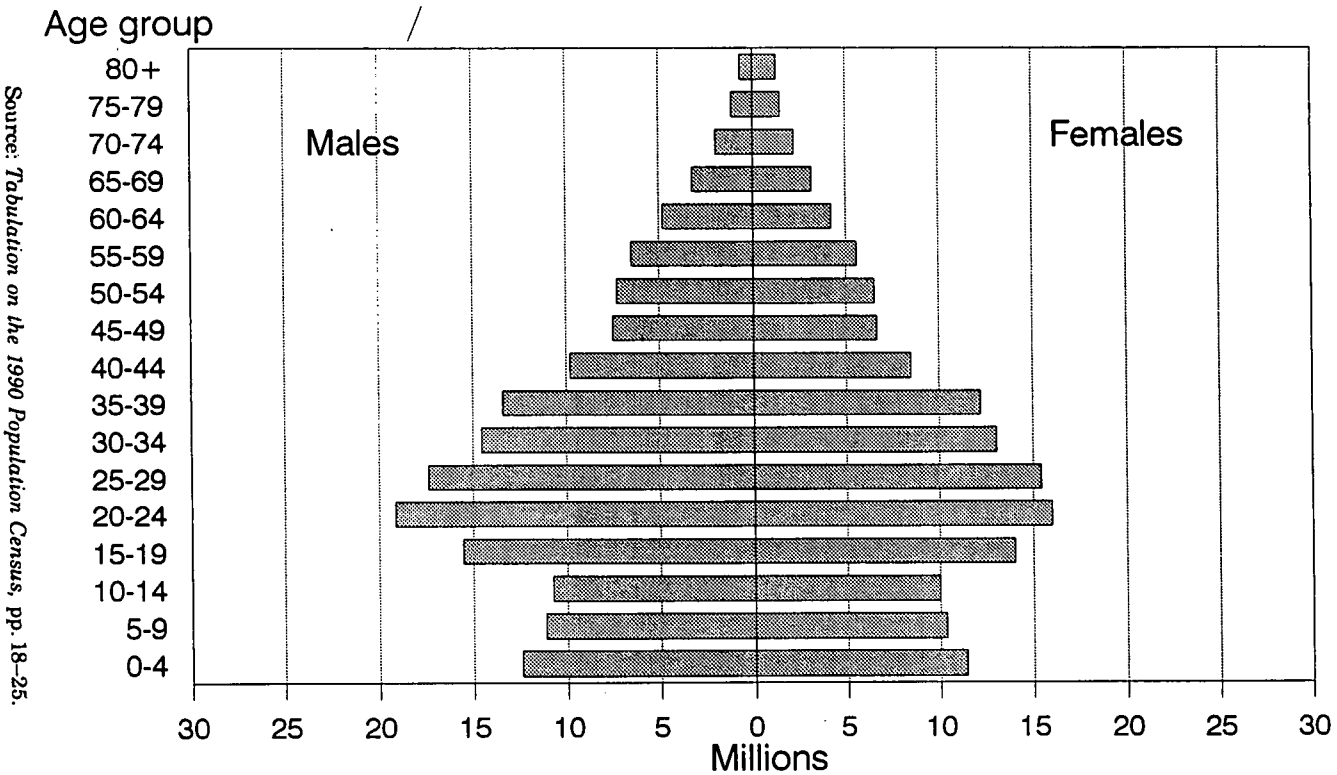
Figure 1. China's Rural Population Age Structure, 1990.



Source: *Tabulation on the 1990 Population Census of the People's Republic of China*. Beijing, 1993: China Statistical Publishing House, Vol. 2, pp. 26-29.



Figure 2. China's Urban Population Age Structure, 1990.



The 1990 rural and urban age structures both show the effects of the sharp fertility decline of the 1970s. In the urban areas of China (Figure 2), fertility dropped in the 1970s and has stayed low since then. Urban China seems to have experienced no fertility rebound in the 1980s, based on the urban census data. But in rural areas (Figure 1), the birth rate declined steeply between the early and late 1970s, stayed low in the early 1980s, then rose temporarily in the late 1980s. The larger size of the 0-4 age group in Figure 1 was caused by the large numbers of rural women in the peak childbearing ages, as well as increased fertility levels on average.

Through 1990, China's urban total fertility rate was far lower than the rural TFR. Based on 1990 census data on 1989 births, the 1989 urban TFR was 1.55 births per woman, and the rural TFR was 2.54.<sup>8</sup> Therefore, the 1990 urban population age structure was more truncated at young ages than the rural age structure.

When a population has an age structure with such marked discontinuities, shifts in the size of particular age groups can be striking in short periods of only 5 or 10 years. For example, Figure 3 shows the PRC 1996 age-sex structure as projected from 1990 census data using available information on population growth and on birth and death rates in the 1990s. The small cohort of children who were ages 10-14 in 1990 has now grown up to a comparatively small 15-19 age group shown in Figure 3. Meanwhile, the huge cohorts who were in their late teens and their twenties in 1990 are in their twenties and early thirties by 1996. This "youth bulge" in the 1996 population pyramid will grow older during the Ninth Five-Year Plan of 1996-2000; these cohorts will be in their late twenties and their thirties by 2000. By the year 2005, the comparatively small 5-year age groups who are in their teens in 1996 (Figure 3) will be in their twenties.

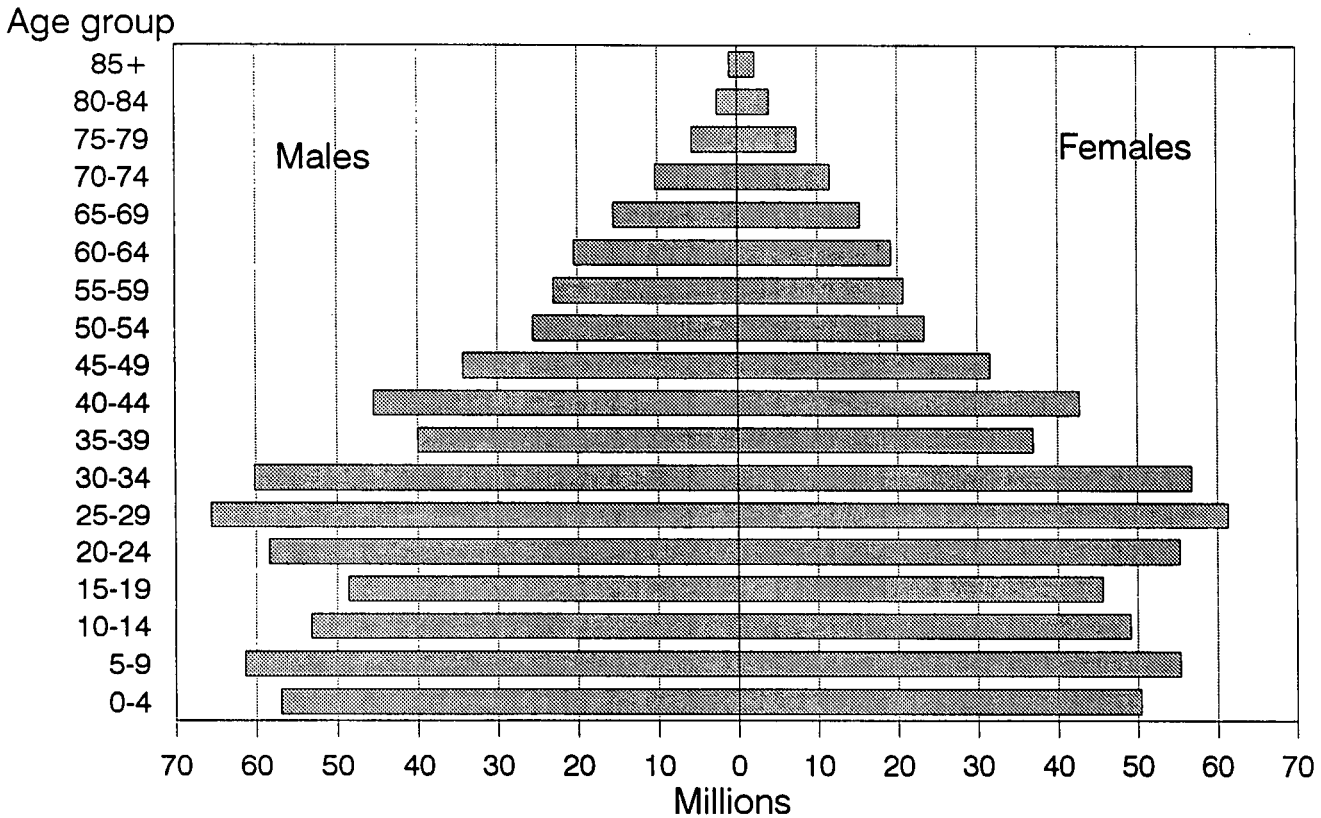
This is an important trend. During the 1970s through the early 1990s, the PRC has been scrambling to try to provide employment to huge numbers of aspiring entry-level workers in their late teens and twenties. It is at these ages, especially in urban areas, that unemployment is most severe and obvious.

During the late 1990s and the early years of the next century, China's burden of employing entry-level workers will lighten. Indeed, in the cities, the demand for jobs coming from urban-born youth has already diminished because urban fertility had declined by the early 1970s.<sup>9</sup> Today, in-migrants from China's rural areas are already filling some of the urban jobs, including physically demanding and dirty tasks, in part because there are reduced numbers of urban-born youth looking for entry-level work.

<sup>8</sup> These birth data were slightly underreported. The census figures gave a 1989 national TFR of 2.25 births per woman, but necessary adjustments result in a TFR of 2.4 for 1989. See Table 1.

<sup>9</sup> Banister, Judith, and Jeffrey R. Taylor. 1989. "China: Surplus Labor and Migration." *Asia-Pacific Population Journal*, Vol. 4, No. 4, Dec. 1989, pp. 3-20.

Figure 3. China Estimated Midyear Population Structure, 1996.



Source: Projections by the U.S. Bureau of the Census, based on birth rates from China State Statistical Bureau and preliminary results from the 1995 one-percent sample census.

PRC economists and demographers have pointed out that China is entering a "golden age" of economic development, in which its age structure is highly conducive to rapid economic growth.<sup>10</sup> Why is that? The reason is that the PRC now has, and will have for several decades, a low "dependency ratio."<sup>11</sup>

Fertility in China has been comparatively low for two decades. Therefore, in comparison to most developing countries, the cohorts of children in the PRC are unusually small in relation to the adult population. For example, in 1996 only 27 percent of China's population is in ages 0-14, compared to 31 percent for Brazil, 45 percent for Nigeria, 34 percent for India, and 42 percent for Pakistan.<sup>12</sup> Meanwhile, the recency of China's demographic transition means that the population is still a "young" one, in that the proportion of the population ages 65 and older is only 6.2 percent in 1996, and will still be only 6.8 percent in 2000 and 8.2 percent in 2010. This is in stark contrast to the situation in developed countries, where the elderly already constitute a much higher proportion of the total population (United States: 13.1 percent; Sweden: 18.3 percent; Germany: 16.3 percent).<sup>13</sup> The proportion of elderly in the PRC is similar to the situation in Taiwan, 7.8 percent ages 65 and older, and in South Korea, 5.9 percent.<sup>14</sup> Though China does not have a heavy burden of aged dependency, its social security system is currently inadequate for the needs of the elderly. Therefore, the PRC government is attempting to restructure its urban pension systems and expand the rural old age security system.<sup>15</sup>

In sum, China's age structure in this decade and the next is characterized by a bulge in the population of the most productive working ages, while child and aged dependency are low. This age structure promotes productivity, savings, and investment, and minimizes consumption needs for education and health care.

One negative aspect of such an age structure is the difficulty of productively employing all those of working age who desire to work for income. During the 1980s, China's population in the age group 15-64 grew rapidly, about 2.6 percent a year, while the total population growth rate averaged 1.5 percent annually. China launched its post-Mao economic reforms just in time to provide at least nominal employment for much of this rapidly expanding population of working ages in the 1980s. During the Ninth Five-Year Plan period (1996-2000), the number of people in the PRC at ages 15-64 will increase by 48 million. In the most recent 5-year period for which data are available (1989-1994 year-end data), the PRC reportedly

<sup>10</sup> Tian Xueyuan. 1984. "On Changes in the Age Composition of the Population and Policy Options for Population Planning." *Zhongguo shehui kexue* (Social Sciences in China), No. 2, March 1984, pp. 39-52.

<sup>11</sup> The dependency ratio is the number of persons ages 0-14 plus the number at ages 65 and older, per 100 persons in the ages 15-64.

<sup>12</sup> IDB. 1996. U.S. Bureau of the Census, International Programs Center, International Data Base.

<sup>13</sup> Kinsella, Kevin, and Yvonne J. Gist. 1995. *Older Workers, Retirement, and Pensions; A Comparative International Chartbook*. Washington, D.C.: U.S. Bureau of the Census. International Population Reports No. IPC/95-2, p. A-1.

<sup>14</sup> IDB. 1996. U.S. Bureau of the Census, International Programs Center, International Data Base.

<sup>15</sup> West, Loraine. 1995. *Old Age Security Reform in China*. Washington, D.C.: U.S. Bureau of the Census. International Brief No. IB/95-1; and West, Loraine. 1996. "Pension Reform in China: Some Implications for Labor Markets." Presented at the annual meeting of the Association for Asian Studies, Honolulu, April 1996.

had a net increase of 61 million jobs.<sup>16</sup> Real per capita GNP reportedly grew at an average annual rate of 10.2 percent during this time period.<sup>17</sup> This suggests that, even if growth slows slightly in the second half of the 1990s, the PRC is capable of generating enough additional jobs to employ the increased numbers of workers.

While the PRC should be able to create enough new jobs to employ the tens of millions of additional members of the labor force during the Ninth Plan period, this does not address the problem of China's current and projected surplus labor force. There are many people who are working, but adding essentially nothing to production because they are not really needed.<sup>18</sup> In the early 1990s, China already had between 60 million and 200 million (depending on which calculations and assumptions are used) surplus laborers in agriculture.<sup>19</sup> As of 1994, there were reportedly 17 million surplus workers in nonagricultural Chinese enterprises.<sup>20</sup> The recent data on employment increases suggest that the PRC will probably be able to generate enough net new jobs to employ the increment to the labor force during the Ninth Plan. However, it is unlikely that the China mainland will be able to absorb its huge backlog of about 80–220 million unproductive workers into useful work in the near future.

#### POPULATION DISTRIBUTION AND URBANIZATION

The population of the China mainland is unevenly distributed geographically, in part because vast areas of land are inhospitable. The Communist leadership tried for several decades to redistribute the population by assigning people to relocate to border provinces, arid areas, grasslands, and swamplands, but the overall pattern of population concentration and dispersion changed very little from province to province and region to region. Because a large proportion of China's labor force (54 percent) works in the primary sector, mostly agriculture, and a large majority of the population lives in rural areas (71 percent), China's people live largely in areas where arable land is more plentiful.<sup>21</sup>

During the Maoist decades, after the Great Leap Forward crisis of 1958–1961, the government largely prevented further urbanization of China's population. The PRC was achieving real industrial and general economic development, but the urbanization and employment transformation that would normally accompany such

<sup>16</sup>SSB. 1995. People's Republic of China, State Statistical Bureau. *Statistical Yearbook of China: 1995*. Beijing: China Statistical Publishing House, p. 83.

<sup>17</sup>SSB. 1995. People's Republic of China, State Statistical Bureau. *Statistical Yearbook of China: 1995*. Beijing: China Statistical Publishing House, p. 32.

<sup>18</sup>Taylor, Jeffrey R. 1988. "Rural Employment Trends and the Legacy of Surplus Labor, 1978–86." *China Quarterly*, No. 115, Sept. 1988, pp. 736–766; and Taylor, Jeffrey R., and Judith Banister. 1989. *China: The Problem of Employing Surplus Rural Labor*. Washington, D.C.: U.S. Bureau of the Census. Center for International Research Staff Paper No. 49.

<sup>19</sup>Banister, Judith, and Christina Wu Harbaugh. 1992. "Rural Labor Force Trends in China." In *China Agriculture and Trade Report, Situation and Outlook Series*. Washington, D.C.: U.S. Department of Agriculture, Economic Research Service, No. RS-92-3, p. 63.

<sup>20</sup>Zhongguo Tongxun She. Oct. 4, 1994. "Enterprises Have 17 Million Surplus Workers," in Chinese. Sept. 13, 1994. Translated in *Foreign Broadcast Information Service Daily Report*, No. FBIS-CHI-94-192, Oct. 4, 1994, p. 70.

<sup>21</sup>SSB. 1995. People's Republic of China, State Statistical Bureau. *Statistical Yearbook of China: 1995*. Beijing: China Statistical Publishing House, p. 83; and Xinhua. Feb. 14, 1996. "PRC: Census Indicates Population Growth Slowing." Beijing Xinhua in English. Transcribed in *Foreign Broadcast Information Service Daily Report*, No. FBIS-CHI-96-032, Feb. 15, 1996, pp. 13–14.

modernization were blocked. Newly developing areas were denied urban status even when they attained urban characteristics. Rural people were prevented from moving to urban areas by means of the permanent population registration system, the food rationing system, and public security monitoring. The urban proportion of China's population remained 17–19 percent between 1961 and 1980.<sup>22</sup>

During the economic reform period, however, PRC leaders decided that China's rural economic development, and therefore national economic modernization, had been impeded by the confinement of the vast majority of workers in the villages. National decision-makers concluded that urbanization is a normal part of development, but they were concerned about explosive population growth in China's primate cities such as Shanghai and Beijing. Therefore, during the last decade and a half, laws and regulations have attempted to direct rural out-migrants to nearby towns and small cities, with considerable success.

Based on successive censuses, the population of China's cities and established urban towns rose from 206 million in 1982 (21 percent of the total population) to 296 million in 1990 (26 percent) to 348 million in 1995 (29 percent).<sup>23</sup> This urbanization trend was not uniform nationwide. In the 1982–1990 intercensal period, for example, the population of Guizhou province remained 19 percent urban and that of Fujian province was steady at 21 percent. Henan province's population was only 14 percent urban in 1982 and 15 percent in 1990.

In contrast, many provinces experienced rapid urbanization in the 1980s, according to 1982 and 1990 census data. Yet even there, net in-migration from rural to urban areas was usually not the primary factor driving urbanization, according to the available data. Rather, reclassification of rural places as cities and towns, including the expansion of city and town boundaries, was the largest component of urban growth. For instance, Liaoning province's urban population rose from 42 percent of the provincial total in 1982 to 51 percent in 1990. Of the 3.6 percent annual urban population growth, 1.9 percent growth was reclassification, 1.0 percent was natural population increase, and 0.7 percent annual growth was due to net in-migration to urban areas.

Sichuan province's urban population grew 5.2 percent a year in 1982–1990, but of that, net in-migration to urban areas contributed only 1.0 percent growth in the urban population annually. Xinjiang's urban population grew 3.5 percent annually during the 1982–1990 period, but only 0.4 percent yearly growth was attributable to reported net in-migration.

One of China's most rapidly urbanizing provinces is Guangdong province. Based on the censuses, the percent urban sharply in-

<sup>22</sup> SSB. 1993. People's Republic of China, State Statistical Bureau. *Statistical Yearbook of China: 1993*. Beijing: China Statistical Publishing House, p. 65.

<sup>23</sup> State Council and SSB. 1993. China, Population Census Office under the State Council, and Department of Population Statistics, State Statistical Bureau. *Tabulation on the 1990 Population Census of the People's Republic of China*. Beijing, China Statistical Publishing House, Vol. 1, pp. 16–18; State Council and SSB. 1985. China Population Census Office under the State Council, and Department of Population Statistics, State Statistical Bureau. *China 1982 Population Census (Results of Computer Tabulation)*. Beijing: China Statistical Publishing House, pp. 26–27; and Xinhua. Feb. 14, 1996. "PRC: Census Indicates Population Growth Slowing." Beijing Xinhua in English. Transcribed in *Foreign Broadcast Information Service Daily Report*, No. FBIS-CHI-96-032, Feb. 15, 1996, pp. 13–14.

creased from 19 percent in 1982 to 37 percent in 1990. The urban population grew 9.2 percent a year in that 8-year period. Components of that growth were: 4.9 percent annual growth through reclassification, 2.8 percent growth through net in-migration, and 1.5 percent annual growth from natural population increase.

At the national level, the growth of the PRC urban population averaged 4.5 percent a year during 1982–1990. Reclassification of rural places as urban accounted for 1.8 percent growth in the urban population annually, 1.5 percent annual growth was attributable to net rural-to-urban migration, and natural population increase contributed 1.2 percent a year growth in the urban total. Urban growth through reclassification and natural increase requires no population movement. Therefore, the urbanization data from the 1980s, coupled with 1990 census data on migration, suggest that rural-to-urban migration was moderate during the 1980s.

There is much anecdotal information indicating that in the early 1990s, movement for work has escalated in China, and much of that movement has been from rural to urban areas. The October 1995 one-percent sample census included in the urban population count permanent migrants and those temporary migrants who had been in the city or town for six months or more. Yet the urban population of China increased from 26 percent to only 29 percent of the total population. The fact that urban population growth slowed to 3.1 percent a year during 1990–1995 indicates that rural-to-urban migration nationwide did not rapidly escalate.

#### MIGRATION AND THE FLOATING POPULATION

Population movement in the PRC is legally and practically divided into two major categories: those with permission to transfer their permanent registration location (*hukou*) from their origin to their migration destination, and those lacking such permission. Migration is comparatively easy for those with official approval. Such migrants have more rights at destination and are unlikely to be forced back to their places of origin. But in the late 1980s and the 1990s, more and more of those on the move are not formal permanent migrants but rather are variously described as “temporary” or “provisional” migrants, or the “floating” population. The PRC 1990 census attempted to count as migrants those who had lived in a different place 5 years earlier, including all those with permission to move, and all those who had been away from their former home for one year or more without permanent migration status.

Patterns and levels of migration can be discerned from the 1990 census. Only 34 million people, 3 percent of the total enumerated population, were counted as migrants according to the census definition, which excluded presumably large numbers of people who moved locally within a county or city. Of the 1985–1990 migrants so defined, two-thirds moved within the same province and one-third to a different province.

The severe PRC restrictions on permanent migration had the following result. Of the small number of interprovincial migrants in China between 1985 and 1990, long-term “temporary” migrants

outnumbered permanent migrants (6.3 million temporary vs. 5.5 million permanent nationwide).<sup>24</sup>

PRC scholars generally perceive that, during the early 1990s, there has been an escalation in the size of the "floating" population of the China mainland. This term often includes everyone away from his or her location of permanent population registration for any reason, though some sources attempt to exclude certain categories from this concept—students, people traveling on business, Chinese tourists, those visiting family members, those seeking medical attention, and so forth. Most observers include labor migrants—seasonal workers, those registered as "temporary" workers in cities, traders, unregistered squatters looking for work—in the floating population. Since the concept is so poorly defined, it is not surprising that estimates range from 50 million to 120 million "floaters" at any one time in the early 1990s.<sup>25</sup>

In the PRC, those who have been in a place away from their hukou location for more than a few days are supposed to register with the local public security office as a "temporary" resident. A recent PRC source stated that in 1995, 43 million people registered in such temporary status, of whom 80 percent were at the temporary location for work or business reasons. This recorded temporary movement was primarily rural-to-urban and inland to coastal.<sup>26</sup>

The migration picture that is emerging in the China mainland looks like this: Population movement in China today is still moderate, not massive. Migration restrictions continue to limit long-term permanent migration. Most migration is intra-provincial and rural-to-town or rural-to-city. Most inter-provincial movement is from inland to coastal areas. Migrants are primarily young adults and more men than women. While some areas of China are only lightly affected by out- or in-migration, some destinations are receiving enormous numbers of migrants. The extreme example is the Pearl River Delta of Guangdong Province. Beginning in 1992, permanent population movement into the Delta escalated and temporary migration soared. From 1986 to 1994, only 8 years, the population of the Pearl River Delta almost doubled from 12.6 million to 24.2 million. By 1994, 56 percent of the population was "permanent" residents, and 44 percent was "temporary" residents.<sup>27</sup>

Certain PRC government and scholarly organizations are intensely interested in recent and current migration, so they are trying to track the trends through survey and registration data. For example, a Research Group on Annual Analysis of the Rural Economy, consisting of rural development specialists from the Chinese

<sup>24</sup> Yang Xiushi. 1996. "Labor Force Characteristics and Labor Force Migration in China." In Gregory K. Schoepfle, ed., *Changes in China's Labor Market: Implications for the Future*. Washington, D.C.: U.S. Department of Labor, Bureau of International Economic Affairs, pp. 13-43.

<sup>25</sup> Sun Changmin. 1996. "Floating Population in Shanghai—A Perspective of Social Transformation in China." Presented at the International Conference on Migration in China, Cologne, Germany, May 1996, p. 1; and Cai Fang. 1996. "Recent Trends of Migration and Population in Shandong." Presented at the International Conference on Migration in China, Cologne, Germany, May 1996, pp. 2, 17.

<sup>26</sup> Chen Yanni. 1996. "PRC: Ministry Official Says Transient Population Well Managed." *Foreign Broadcast Information Service Daily Report*, No. FBIS-CHI-96-065, Apr. 3, 1996, pp. 41-42.

<sup>27</sup> Zeng Yi and Jiang Leiwen. 1995. "Population Growth, Land Use, and Environmental Protection in the Pearl River Delta in China." Presented at the annual meeting of the American Association for the Advancement of Science, Baltimore.



Academy of Social Sciences (CASS) and the State Statistical Bureau (SSB), has begun conducting annual surveys of migrants. The 1993 survey estimated that there were 36 million rural-to-urban migrants who were considered "stabilized" in cities, plus 24 million urban-to-urban migrants.<sup>28</sup> The 1994 survey estimated 39 million rural-to-urban migrants stabilized in PRC cities and towns, and another 11 million rural-to-rural migrants.<sup>29</sup>

During the 1990s, the PRC Ministry of Labor, Ministry of Agriculture, and Chinese Academy of Social Sciences have conducted large rural surveys in order to estimate labor migration from the source households. They find that 10–20 percent of the rural workers are working outside their immediate village. Some surveys calculate that most of these commute daily or live and work in a nearby town or city. Other surveys find that most rural labor migrants go to cities. The duration of migration is lengthening.<sup>30</sup>

PRC scholars and national officials generally agree or at least concede that more rural-to-urban labor migration is probably beneficial for the country as a whole, because workers are more productively employed than they would have been in their home villages. Rural labor out-migration helps to address the rural surplus labor problem, and that is good for China's development. The villages, counties, and provinces that experience net worker out-migration gain the remittances the workers send or bring home, and gain the skills of any workers who return home.

However, there is more controversy about the impact of rural-to-urban labor migration on the receiving provinces, cities, and towns. Most observers note that laborers from rural areas provide much-needed industrial, construction, and service work in urban areas. Yet many complain about migrants taking jobs from city people, engaging in crime, putting pressure on urban infrastructure, living clustered together in slums, and bearing forbidden children. These conflicting perceptions of the net impact of rural-to-urban labor migration perpetuate contradictory policies, some promoting labor movement and some trying to ameliorate or stop it.

#### SEX RATIO TRENDS

In spite of warfare that tends to selectively kill men, China's population has had a shortage of females for a long time. A 1929–31 survey of farm families found a rural population sex ratio of 108.5 males per hundred females; the 1953 census counted the population of the China mainland with 107.6 males per hundred females; the total population sex ratio declined to 105.5 in the 1964 census, rose to 106.3 in the 1982 census, and increased further to 106.6 in the 1990 census. India is one of the few countries where the shortage of females in the whole population is more pronounced

<sup>28</sup> Research Group. 1994. Research Group on Annual Analysis of the Rural Economy. *Annual Report on the Economic Development of Rural China in 1993 and Development Trends in 1994*. Beijing: China Social Sciences Publishing House, cited in Chen Jiyuan and Hu Biliang. 1995. "Rural Migration and Agricultural and Rural Sustainable Development."

<sup>29</sup> Research Group. 1995. Research Group on Annual Analysis of the Rural Economy. *Annual Report on the Economic Development of Rural China and Development Trends in 1995*. Beijing: China Social Sciences Publishing House, cited in Chen Jiyuan and Hu Biliang. 1995. "Rural Migration and Agricultural and Rural Sustainable Development."

<sup>30</sup> Chen Jiyuan and Hu Biliang. 1995. "Rural Migration and Agricultural and Rural Sustainable Development," and Xinhua. Apr. 10, 1996. "PRC: State to Promote Orderly Migration of Rural Workers." *Foreign Broadcast Information Service Daily Report*, No. FBIS-CHI-96-070, Apr. 10, 1996, pp. 72–73.

than in the PRC; India's population had 107.9 males per hundred females in the 1991 census.<sup>31</sup>

The dearth of females in the China mainland has been caused by discrimination against females throughout life, but especially during infancy and childhood. World experience has shown that, in the absence of discrimination, age-specific mortality rates are higher for boys than girls at every age. One real sign of progress in overcoming discrimination against girls in the PRC is as follows: successive censuses show that age-specific death rates of girls were higher than for boys from birth through age 11 in the years prior to 1953, at ages 0–6 prior to 1964, at ages 0–4 in 1981, and only at ages 0–2 in 1989.<sup>32</sup> These data show that, in the China mainland, severe maltreatment and neglect leading to early death of girls has been confined to fewer and younger ages in successive decades.

Available data from the China mainland 1990 census allow estimation of "missing girls," that is girls who should be alive and counted, based on the number of boys counted at each age, but who for whatever reasons are not counted in the census. The dearth of girls changed greatly from cohort to cohort. Of children born in the mid-1970s, 2 percent of the girls are missing. Of those born during the years 1979–1982, the first years of the one-child policy and heightened compulsion in family planning, 3 percent of the girls are missing. Sex-selective abortion was not widely available in the China mainland during those years; the loss of these girls was due to maltreatment, neglect, abandonment, and infanticide.

Even higher proportions of the expected numbers of girls are missing from the 1990 census cohorts younger than age 8. At ages 3–7 in 1990, those born 1982–1987, 4 percent are missing; at age 2, 5 percent; and at ages 0 and 1, born 1988–1990, 6 percent of the girls are missing. The increase in the proportion of girls missing at the younger ages was caused primarily by the use of sex-selective abortion beginning around 1983 and escalating in subsequent years.

Map 1 shows the sex ratio of children ages 0–14 counted in the PRC 1990 census by province.<sup>33</sup> Higher sex ratios, expressed as boys counted per hundred girls counted, mean more pronounced shortages of girls. The mainland provinces with the most striking dearth of girls are along the southern and eastern coasts. Almost as severe are the proportions of girls missing in most provinces of central and north-central China. These are the provinces of China Proper, the historic core of Han China. In contrast, the provinces on the periphery of China Proper display smaller proportions of girls missing. Southern Manchuria, Inner Mongolia, and the southwesternmost provinces of the China mainland show a missing girl problem, but not of the magnitude seen in the PRC's most densely populated Han provinces. Yet even here, discrimination against

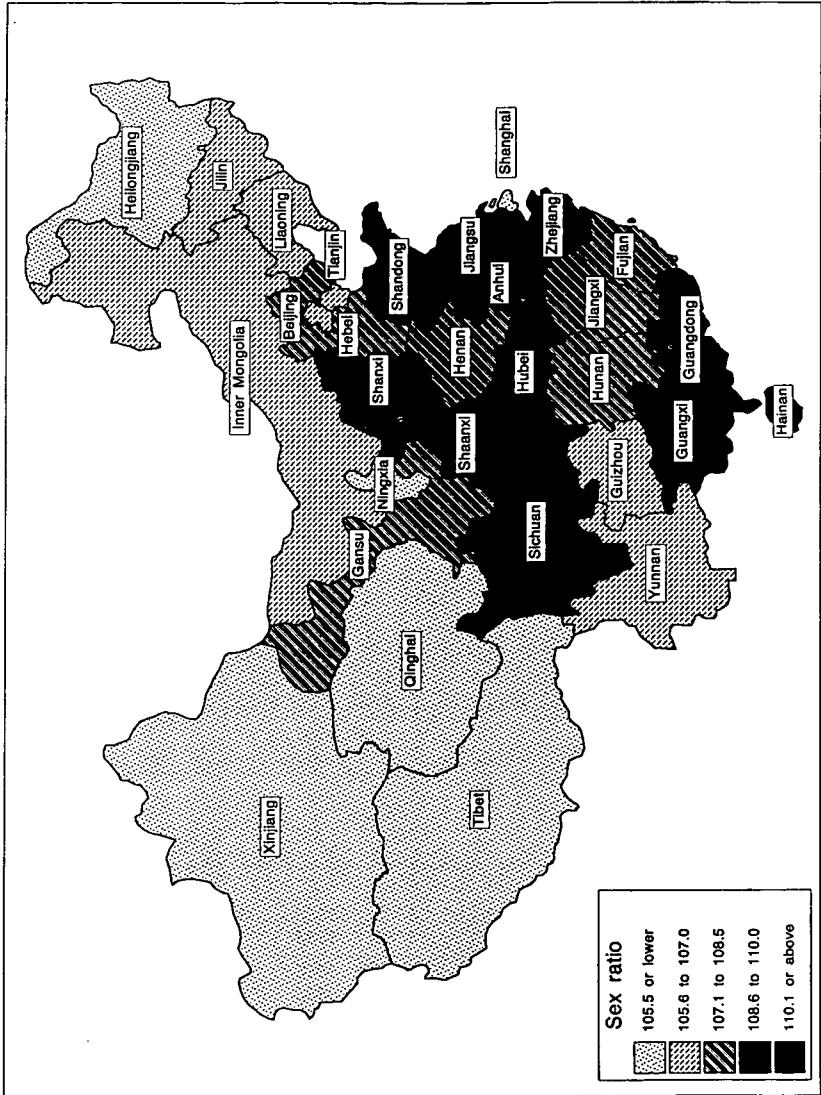
<sup>31</sup> Adlakha, Arjun, and Judith Banister. 1995. "Demographic Perspectives on China and India." *Journal of Biosocial Science*, Vol. 27, No. 2, Apr. 1995, pp. 163–178.

<sup>32</sup> Banister, Judith. 1992. "China: Recent Mortality Levels and Trends." Presented at the annual meeting of the Population Association of America, Denver, May 1992; and Coale, Ansley J., and Judith Banister. 1994. "Five Decades of Missing Females in China." *Demography*, Vol. 31, No. 3, Aug. 1994, pp. 459–479.

<sup>33</sup> This discussion is excerpted from Banister, Judith. 1996. "China's Missing Girls: Provincial Variation in Cause and Effect." Presented at the annual meeting of the Population Association of America, New Orleans, May 1996.

baby girls can be serious. For example in one county of Yunnan, the female infant mortality rate is 2–5 times that of the male rate.<sup>34</sup>

**Figure 4. China, Ages 0–14 Provincial Population Sex Ratios, 1990.**



Source: China provincial 1990 census volumes.

<sup>34</sup>Lavelly, William, William M. Mason, and Jiang Hong Li. 1996. "Infant Mortality in a Rural Chinese County." Presented at the annual meeting of the Population Association of America, New Orleans, May 1996, Table 8.

The provinces where the ratio of boys to girls is normal (a sex ratio of 105.5 or lower)<sup>35</sup> are the western and minority provinces of Xinjiang, Tibet, Qinghai, and Ningxia, the northeast Manchurian province of Heilongjiang, and the PRC's most advanced city of Shanghai. Many of China's minority groups do not systematically discriminate against females in ways leading to their untimely deaths, while this is a characteristic seen in most Han provinces.

Province-level analysis of the causes of the missing girls shows wide variation.<sup>36</sup> In some areas by 1990, for instance Anhui province, there was no evidence of the use of sex-selective abortion, but there was a major shortage of girls due to excess female infant mortality and selective neglect of girls above infancy. In contrast, some provinces, for example Liaoning, displayed very little infanticide but rapid adoption of sex-selective abortion.

During 1983–1990, at least 1.5 million sex-selective abortions of female fetuses were carried out on the China mainland, the numbers escalating sharply in the late 1980s. Since 1990, there is little doubt that the use of sex-selective abortion on the China mainland has risen. Laws in the PRC, as in most other Asian countries, forbid the use of ultrasound or other technologies to detect fetal sex, but in the China mainland as elsewhere, this regulation is easily circumvented.

During the 1990s and beyond, the PRC will continue to experience this son preference that is translated into a shortage of girls in each new cohort of children. The China mainland is not alone—in other areas of Asia we see the same effect, though in some (South Korea, Taiwan) it is generally believed that the shortage of girls is mostly brought about by sex-selective abortion, and only in small degree by selective neglect of girls or female infanticide. So far, on the China mainland, it appears that the use of sex-selective abortion has basically been added to continuing use of other methods that cause untimely deaths of girls already born. In theory, sex-selective abortion of girls might some day substitute for infanticide, abandonment, and selective neglect of girls. In some individual cases, this may already be happening, but the weight of the evidence suggests that so far, the effect of the availability of sex-selective abortion is additive.<sup>37</sup>

#### CONCLUSIONS

The China mainland has achieved advanced demographic conditions for a developing country. Expectation of life at birth has risen to 69 or 70 years. Fertility has been reduced to 1.9 births per woman, which is below replacement level (about 2.1). Even with unusually low fertility, the population continues to grow because of the age structure, which has a bulge in the peak childbearing ages of the twenties and early thirties (Figure 3). The PRC population is expected to grow by 59 million during the Ninth Five-Year Plan,

<sup>35</sup> Caucasian and oriental populations have a sex ratio at birth of 105–106 boys per hundred girls. Because, absent discrimination, boys die more than girls at each age, the sex ratio should decline after birth.

<sup>36</sup> Banister, Judith. 1996. "China's Missing Girls: Provincial Variation in Cause and Effect." Presented at the annual meeting of the Population Association of America, New Orleans, May 1996, Table 6.

<sup>37</sup> Banister, Judith. 1996. "China's Missing Girls: Provincial Variation in Cause and Effect." Presented at the annual meeting of the Population Association of America, New Orleans, May 1996.

from 1.21 billion at the beginning of 1996 to 1.27 billion at the end of the year 2000. This population growth rate, averaging 0.9 percent a year, is low for a developing country. Given the rapid economic growth the PRC has recently achieved, and assuming continuation of fast or even moderate economic growth during the late 1990s, the PRC should have little difficulty providing for the annual increments to its population.

The booming economy of the China mainland is fueling a transformation out of agriculture into nonagricultural employment. The increased numbers of cities and towns, their expansion into formerly rural areas, and the building of dams and reservoirs and factories and housing is taking valuable arable land out of production. At the same time, population growth and swift increases in living standards are bringing about demand for a more varied diet including more animal products. In the short run, even with continuing loss of arable land, the PRC should be able to grow and buy enough food supplies to meet the demands of its population for more and better food. Projections by the Food and Agriculture Organization, the World Bank, the U.S. Department of Agriculture, and other organizations agree that the China mainland's net import needs for grain or meat will still be manageable on the world market by the year 2000 and by 2010.<sup>38</sup>

In this and the following decade, the PRC has low child dependency and low aged dependency. Huge cohorts at the ages of entry-level employment are rapidly growing beyond those ages, and are being succeeded by much smaller cohorts who are putting much less pressure on China's systems for creating entry-level jobs. The population age structure is conducive to rapid economic development. Given the PRC's recent track record, the country should be able to generate enough jobs to employ the 48 million more people in the 15–64 age group added during 1996–2000, even if they all wished to work. But it is unlikely that the PRC can productively employ the current numbers of surplus laborers in agriculture and industry in the coming five-year period.

China's population was 29 percent urban in 1995, and it is expected that urbanization will continue. Increased migration is also expected, though the PRC has so far succeeded in modulating and channeling much of the rural-to-urban migration. The "temporary" or "provisional" status of large proportions of the migrants makes their situation at destination insecure and makes it very difficult for the migrants to bring spouses or children and set up a family household at destination. The migration that is taking place helps provide workers where they are needed in the economy and helps the historic transformation of employment away from agriculture.

The strong son preference in the Han cultures of the China mainland continues today. Though selective neglect of girls above infancy has been shortened in duration and now primarily affects ages 0–2, infanticide and abandonment continue. Sex-selective abortion of girls has now been added as a way to avoid raising daughters.

<sup>38</sup> Banister, Judith and Peter Johnson. 1996. *Human Dimensions of Asian Security*. Alexandria, VA: Center for Naval Analyses, CRM 95–230, March 1996, pp 81–85, 148.

On the whole, current and prospective demographic trends in the PRC are favorable for modernization and development. Low population growth, an age structure concentrated in the most productive ages, gradual urbanization, and increasing labor migration all are conducive to the economic transformation of the China mainland.

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# SOCIAL DEVELOPMENT, QUALITY OF LIFE AND THE ENVIRONMENT

By Carl Riskin \*

## CONTENTS

	Page
Summary .....	361
Introduction: Major Gains, Growing Inequality .....	362
Poverty and Unemployment .....	364
Social Security .....	367
Rural-Urban Migration .....	369
Health .....	370
Education .....	372
The Status of Women .....	373
Environmental Issues .....	375
Agriculture and Food Security .....	378
Conclusion .....	380

## TABLES

Table 1. Selected Standard of Living Indicators, 1980-1994 .....	363
Table 2. Estimates of Incidence of Rural Poverty, 1978-1990 .....	365
Table 3. Medical Facilities and Personnel, 1965-1994 .....	371

## SUMMARY

Within the space of less than a generation, the Chinese people have experienced massive changes in the quality of their lives. As the transition from a centrally directed to a market economy has proceeded, the world that had previously been locked out has swiftly become accessible to a large fraction of the population through modern means of communication. Consumer goods and services from the outside have flooded the country, and many Chinese, especially urban residents, have quickly made the transition to consumerism. Averages of all kinds have soared: income, consumption, education, and medical service. On the upper side of these averages are millions of people who have done exceedingly well, and some who have become genuinely well off. However, after a burst of equalizing growth in the early part of the transition period, income inequality began to increase rapidly. Regional and urban-rural inequality in particular appeared to stall in the mid-1980s. Among poorer Chinese, problems remain in getting adequate health care and education.

The complex environment created by rapid growth and institutional change has had an equally complex impact on various as-

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pects of quality of life. Open unemployment, though held at bay by fast growth, has crept upward. In a labor surplus environment, state sector workers can no longer count on permanent job security. Migration of tens of millions of people has given new flexibility to the labor market, provided higher incomes for residents of less developed regions, and has also ripped a large hole in the fabric of tight government control that has characterized urban areas. Women have benefited from countless new opportunities to seek economic advance, but have also suffered from a resurgence of misogynous practices and attitudes and from labor market discrimination in the new profit-conscious economy. The environment has suffered most straightforwardly from quick and dirty growth, while environmental consciousness has also advanced rapidly. China's food security, aided by massive increases in food production during the transition period, faces new challenges from the disappearance and degradation of arable land, shortage of fresh water, and increasing reliance on cultivation practices that cannot be sustained indefinitely. Some of these problems (e.g., unemployment) have developed despite breathtaking growth rates and are bound to worsen as growth slows to a more normal pace. Others (e.g., environmental problems) should actually benefit from lower growth.

#### INTRODUCTION: MAJOR GAINS, GROWING INEQUALITY

This essay reviews the ongoing changes in the quality of life of Chinese. It focuses on several specific dimensions, including poverty alleviation, employment, the status of women, health care, education, and the environment, which lie at the core of what the March 1995 World Summit in Copenhagen called "social development." The focus on social development recognizes that Chinese, like other peoples, do not all share a common set of life opportunities and in recent years the differences in conditions they face, especially regional differences, have widened rapidly. Yet some of the recent great changes have affected virtually all Chinese in one way or another. These include, *inter alia*, the retreat of the state from intrusive control over many aspects of social, cultural and economic life; the spread of modern media and communications technologies putting millions of people in touch with the world; increasing personal mobility; development of a consumer culture; and revival of traditional cultural and religious attitudes. Material living standards have risen substantially during the reform period. The range of choice facing most people, whether of products to make and sell, consumer goods and services to buy, or ideas to consider and discuss, has greatly widened. These changes have undoubtedly enhanced the social development status of the Chinese people.

Some indicators of the material aspects of these enhancements are presented in Table 1. Per capita consumption levels, given in current prices, increased rapidly for both the agricultural and non-agricultural populations. Correcting for inflation still leaves considerable growth in real consumption: that of the agricultural population increased over the entire period by 147 percent and that of the nonagricultural population by 158 percent. In the early part of the transition era—roughly the first half of the 1980s—rural incomes grew faster than urban, reducing the substantial urban-rural gap in consumption per capita from 2.8-to-1 in 1980 to 2.3-

to-1 in 1985. Thereafter, however, the growth in farm incomes slowed considerably while urban incomes forged ahead, and the gap widened again to 3.6-to-1, greater than it had been at the end of the 1970s. Moreover, the urban-rural gap is underestimated by official income measures because it leaves out of account the substantial, albeit changing, subsidies received by much of the urban population.

TABLE 1. Selected Standard of Living Indicators, 1980-1994.

Measure	1980	1985	1990	1994
Consumption level (yuan)				
Rural (agric'l pop) .....	178	347	571	1,087
Urban (nonagric'l pop) .....	496	802	1,686	3,956
Ratio: Urban/Rural .....	2.8	2.3	3	3.6
Living space per cap (sq. m)				
Rural .....	9.4	14.7	17.8	20.2
Urban .....	3.9	5.2	6.7	7.8
Urban access to running water (% of population) .....	81	81	89	93
Enrollment rates of school-age children .....	93.9	96	97.8	98.4
Doctors per 10,000 persons .....	11.7	13.4	15.4	15.7
Durable Goods Ownership per 100 Households				
Bicycles <sup>a</sup>				
Urban .....	136	152	189	192
Rural .....	37	81	118	137
TV sets				
Urban (color) .....	17.2	59	86.2	
Rural (black & white) .....	10.9	39.7	61.8	
Rural (color) .....	0.8	4.7	13.5	
Refrigerators				
Urban .....	6.6	42.3	62.1	
Rural .....	0.1	1.2	4	

Source: *Statistical Yearbook of China 1995*, pp. 257-8, 263, 287.

<sup>a</sup>Per 100 households of urban staff and workers rather than of total population. Source: *Statistical Yearbook of China 1981*.

China at the end of the collective era faced a severe housing shortage. Average per capita living space in the towns and cities in 1980 was only 3.9 sq. m., and in some cities, such as Shanghai, it was even less. A major construction program virtually doubled this figure by 1994, bringing much-needed relief to the urban population. However, rural housing has expanded just as fast, and from a larger base. Housing space is one of the very few living standards categories in which the rural population, on average, has maintained a decided advantage over city dwellers. Rural living space per capita went from 9.4 sq. m. in 1980 to over 20 sq. m. in 1994, about 2.5 times the urban figure in both years.

Gains have also been made in providing clean drinking water. The percentage of the urban population with access to tap water increased over the period from four-fifths to 93 percent. In rural areas of course the rate was much lower, at an estimated 13.6 percent of the population in 1992. Nevertheless, some progress has been made in the countryside, as well: the fraction of rural people

(excluding Tibet) having access to "improved water supply" rose from 50 percent in 1985 to 75 percent in 1990.<sup>1</sup>

School enrollment rates, already high in 1980, rose still higher as China committed itself to carrying out universal nine-year compulsory education for all school-age children. (Enrollment rates yielded by surveys are somewhat below the official rates; see below.) Medical care improved in quantity and quality, with the number of doctors per capita growing by one-third. The population, especially its urban component, greatly increased its access to consumer durables of all kinds, from bicycles to VCRs. By 1994 there were almost two bicycles per urban household (and 1.4 per rural household) and virtually the entire (full status) urban population had television sets, mostly color sets.<sup>2</sup>

As these figures for per capita consumption suggest, the general increase in average material wellbeing has been accompanied by changing trends in income distribution. Because the reforms began in agriculture (and in the more backward areas), the first half decade of the transition era was marked by declining inequality. World Bank estimates of the Gini coefficient show it falling from .32 in 1980 to .26 in 1984. Thereafter, rural income growth slowed while the coastal provinces grew rapidly away from the interior, and inequality increased again—the Gini estimate for 1992 being .38—to levels well above its starting point.<sup>3</sup>

#### POVERTY AND UNEMPLOYMENT

The contrasting trends in inequality that marked the growth path of the early 1980s and that of subsequent years are paralleled by corresponding trends in the incidence of poverty. During the first period, from 1979 to the mid-1980s, when reform and income growth were centered in the agricultural population, there was an immense reduction—of over 100 million—in the numbers of people falling below China's official rural poverty line (see Table 2). Rural economic reform must get much of the credit for this achievement. The reform permitted people to reallocate their resources toward those productive activities that yielded the greatest returns. The result was a period of very rapid growth that benefited virtually the entire countryside. Moreover, in the dismantling of the rural communes, land and other fixed assets were divided among village residents largely on a per capita basis. Local equality in access to land translated into local evenness in income distribution. The absence of great inequalities in wealth and of a class of landless laborers meant that local differences in incomes remained small and that landlessness—a chief cause of poverty in other low income countries—was very rare in China.

<sup>1</sup>UNICEF, "Children and Women of China: A Situation Analysis," draft, March 25, 1994, p. 73.

<sup>2</sup>These rates are exaggerated because they do not include the tens of millions of rural-urban migrants, who are not officially counted in the urban population and whose rates of ownership of consumer durables are no doubt much lower than those of the "official" urban population.

<sup>3</sup>For a discussion of recent increases in inequality, see Deborah S. Davis, "Inequality and Stratification in the Nineties," in *China Review 1995*, eds. Lo Chi Kin, Suzanne Pepper and Tsue Kai Yuen, The Chinese University Press, 1996. Inequality in the late 1980s is analyzed in A. R. Khan, K. Griffin, C. Riskin, and Zhao Renwei, "Household Income and its Distribution in China," *The China Quarterly*, 132, December 1992 and "Sources of Income Inequality in Post-Reform China," by the same authors, in *China Economic Review*, 4, 1, 1993.

TABLE 2. Estimates of Incidence of Rural Poverty, 1978–1990.

Year	Total Number of Poor (millions)	
	Using plan prices	Using mixed prices
1978 .....	260.5	262.0
1980 .....	217.9	221.2
1981 .....	194.3	202.3
1982 .....	139.7	148.3
1983 .....	122.5	123.4
1984 .....	88.7	87.9
1985 .....	96.4	100.2
1986 .....	96.5	108.0
1987 .....	90.5	109.0
1988 .....	85.6	106.4
1989 .....	102.5	131.9
1990 .....	96.8	120.6

N.B. These estimates are based on the cost of an average diet of 2,150 calories per day and the share of food in expenditures of low-income households. The "mixed" price of foodgrain is an average of state, negotiated and market prices. Using "mixed" prices to value the foodgrain component of the poverty line results in a higher poverty line and thus a higher incidence of poverty.

Source: World Bank, *China: Strategies for Reducing Poverty in the 1990s*, Washington, D.C., The World Bank, 1992(b); UNICEF, *Children and Women of China, A UNICEF Situation Analysis*, draft, March 25, 1994.

After 1985, however, the number of poor virtually stopped declining and, in 1989–91, may actually have increased somewhat. Moreover, the nature of poverty began changing. Before the transition era began, China's distribution at the local level was highly egalitarian (although there were big income differentials among regions and localities). Rural collective institutions of distribution took care of those needing help, while the ban on population movement kept residence in the cities confined to those with jobs in the state or "collective" sectors. If one was poor it was because one lived where everyone was poor. Poverty was defined as a regional phenomenon and anti-poverty policies were aimed at poor areas, mostly in relatively remote, ecologically disadvantaged upland areas. With the erosion or abandonment of collective institutions and the rapid growth in the influence of the market, a "new" poverty began to emerge on an individualized basis. There are many causes, including illness, injury, natural disasters, loss of job and other misfortune, reliance on a pension eroded by inflation, and the weakening or disappearance in some places of the social safety net previously provided by collectives or the state. Recent statistics indicate that there is a growing problem of urban poverty. In mid-1995 some 14 million town and city dwellers (about 4.5 percent of the urban population) lived below the urban poverty line set at an annual family income of RMB 5,000 (\$602) or about RMB 1540 (\$186) per person. Many are families of workers in enterprises losing money and dependents of retirees. Not included in this accounting is the large group of migrants ("floating population") from rural areas that is

not officially part of the urban population and whose living conditions are not well known, although some certainly live in poverty.

China has made poverty alleviation a highlight of its social development plans, with a highly publicized commitment (the "8-7 plan") to basically eliminate absolute poverty by the year 2000. The "8-7" plan focuses attention and resources on poverty in the remaining poor areas. Its goal is to achieve a per capita income standard of 500 yuan (in 1990 prices) for the existing poor population. Infrastructure investment to overcome severe water supply problems, develop roads, and bring in electricity is a major component of the plan, which also seeks to achieve universal primary education, elimination of illiteracy among teenagers and improvement in the health of the poor region inhabitants. The "8-7 plan" gains some plausibility from the fact that, although China has many poor people living in difficult conditions, the problem of absolute rural poverty in China is smaller, relative to population size, than in many other countries at a similar level of per capita income. However, with many pressing needs and a central budget that has declined sharply as a proportion of GDP, it is far from certain that the government will provide the resources necessary to accomplish the plan's goal. The "8-7 plan," like other Chinese poverty programs, focuses efforts on officially designated poor regions.<sup>4</sup> There is some evidence that half or more of the rural poor live outside of such regions<sup>5</sup> and would therefore be left out of the antipoverty program framework.

Among the principal forces generating new kinds of poverty, especially in urban areas, are unemployment and underemployment. China has an economically active population of over 615 million people, including a rural work force of 450 million, of whom 120 million are thought to be surplus workers. According to some government estimates, this number is expected to grow to 200 million by the end of the century. There were 186.2 million "staff and workers" at the end of 1995 in state and urban collective enterprises; 19.6 million people working in urban private enterprises; and 123.5 million in township and village enterprises (TVEs), constituting more than one-quarter of the rural labor force. TVEs have thus played a big role in providing rural employment opportunities and limiting the flood of rural-urban migration, but a role that is very unevenly distributed throughout the country. There were also 31 million workers in rural private enterprises or self-employed, and 5.2 million registered unemployed workers in the cities and towns, constituting 2.9 percent of the urban labor force.<sup>6</sup>

Unemployment in China is the net result of growing demand for labor from fast economic growth, on the one hand, and the burgeoning supply of labor coming onto the market from the redundant work forces in agriculture and the state enterprises, on the

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<sup>4</sup>For perceptive analyses of the poor area development program, see Albert Park and Scott Rozelle, eds., *Promoting Economic Development in China's Poor Areas*, Beijing, n.p., October 26, 1994.

<sup>5</sup>Jyotena Jalan and Martin Ravallion, "Are there dynamic gains from a poor-area development program?" Policy Research Department, World Bank, August 1995; Riskin, "Chinese Rural Poverty Inside and Outside the Poor Regions," paper presented at Annual Meetings of Eastern Economics Association, March 16, 1996.

<sup>6</sup>State Statistical Bureau, "Statistical Communique of the State Statistical Bureau of The PRC on 1995 National Economic and Social Development," in *Beijing Review*, 39, 14, April 1-7, 1996.

other. A large volume of surplus labor was left by the collective era, when birth rates were high and overstaffing ubiquitous in both industry and agriculture. The labor mobility permitted by economic reform has been thawing out this stock of labor so that many people have begun entering the job market from agriculture and from the overstaffed state enterprises. The low official rates of unemployment are deceptive. The rate for the end of 1995 was only 2.9%—5.2 million people out of an urban work force of 174 million<sup>7</sup>—yet the growth of unemployment is regarded as a potential threat to social stability. The actual rate of unemployment is well above the official rate, which counts only those registered with local labor bureaus. Unemployed workers who have not registered are thus left out, including a large number of workers who are on unpaid or partially paid leave from enterprises in financial difficulty. In Shanghai at the end of 1993, for instance, the estimated “real” unemployment level was 7–8%, two to three times the official rate of 2.6%.<sup>8</sup> This unmeasured addition to unemployment is likely to grow as the reform of state enterprises matures and more of them close down or shed their unneeded workers. Moreover, the official rate covers only those with an urban *hukou* (household registration), and thus leaves out the unemployed among the tens of millions of temporary migrant workers from the countryside (see “Rural-Urban Migration” below).

#### SOCIAL SECURITY

The fate of ongoing attempts to reform state enterprises depends in part on the reform of the social security system. State enterprises have been “mini societies,” responsible for providing a host of social services to their employees, including pensions, medical care, schooling and housing. Such obligations are to be divested onto the shoulders of government, central or local or some combination, or shared by government and affected individuals. Retirement pensions and unemployment compensation are two areas of particular concern in this regard. The rapid fall in birth rates in the 1970s is causing the population structure to age, a process that will continue into the next century, posing the problem of how a relatively smaller number and proportion of active workers will support a larger number and proportion of retired people.

Retirement pensions, which have been the responsibility of state enterprises, were financed from government budget grants, which in turn depended on current tax revenues. But the decline in government revenues relative to GNP during the reform period, together with the lapse of a great many state enterprises into basic insolvency and the aging of the work force, have all combined to make the pension problem critical. The government has been working on it for several years. In 1991 the State Council issued a Decision on Reform of the Old-Age Pension System for Enterprises, proposing the establishment of a multi-faceted system combining a

<sup>7</sup>In April 1996 the Labor Ministry announced various measures designed to hold the unemployment rate to 3.2 percent in 1996 and 4 percent in the year 2000. Thus, the expectation is for growth in the unemployment rate. See *Beijing Review*, 39, 17, April 22–28 1996. The official rate understates the actual rate of unemployment (see below).

<sup>8</sup>International Labour Organization (ILO), *People's Republic of China, Employment Policies for Transition to a Market Economy*, ILO/EASMAT, Regional Office for Asia and the Pacific, Bangkok, July 1994, p. 10.

publicly-managed base with a decentralized occupational component as well as voluntary individual savings. By the end of 1993 thirteen provinces had introduced pension systems, and many cities and counties have adopted local retirement systems for urban collective enterprise workers. But it remains unclear what the "adoption" of such systems really means. The existence of competing systems in different administrative units has impeded the broadening of the risk pool, while the issue of financing has not yet been fully faced. Many enterprises, especially ailing state enterprises, are financially unable to meet current responsibilities to their retired workers, let alone make adequate pension fund contributions for those still working. In April 1996 the Labor Ministry announced a plan to provide comprehensive social insurance including coverage for retirement, unemployment, health, accidents and maternity to all workers by the year 2000. The pension component of this plan envisions employee contributions of 3 percent of wages into personal accounts, and employer payments of 20 percent of wages, half of which would also go into the personal accounts. It is unclear whether two major needs of a successful reform of the pension system—maximum broadening of the risk pool and the infusion of funds to cover the large near-term obligations of a system that cannot be self-financing for many years—are adequately addressed by this plan.<sup>9</sup>

Removing pension burdens from state enterprises would help to "level the playing field" for different state enterprises as well as between state and nonstate enterprises and thus contribute to a more competitive environment. This objective, as well as the aim of increasing factor mobility, also requires relieving enterprises of the burden of supporting their redundant workers. Laid off workers, on the other hand, need training and assistance in finding new employment. Government-based unemployment compensation systems dispensed relief funds to 1.8 million unemployed workers and staff in 1994 (out of an actual total unemployment of between 4.8 and 10 million—see "Poverty and Unemployment" above), and 95 million workers were said to be taking part in unemployment insurance programs.<sup>10</sup> The unemployment insurance fund is financed by a payroll tax levied on enterprises,<sup>11</sup> but the plan is eventually to have individuals contribute as well.<sup>12</sup> Other social welfare obligations of state enterprises, such as provision of worker housing, are being tackled though the housing reform and other reform programs at varied speeds and with various degrees of success.

China's long tolerance of the problems of the state enterprises has paid off in limiting the negative short-run welfare effects of reform, such as sharp increases in unemployment, with their attendant threat to social stability. At the same time, however, the substantial funds tied up in such subsidies have a high opportunity cost and have contributed to the growing urban-rural inequality of recent years. Therefore, the process of reorganizing the state enterprises is likely to continue.

<sup>9</sup> See *China Daily*, April 19, 1996; also Chingboon Lee, "China in Transition, Reform of the Urban Social Security System: Issues and Options," Draft Report to World Bank, July 1994.

<sup>10</sup> *Beijing Review*, 38, 37, Sept. 11–17, 1995, p. 19.

<sup>11</sup> ILO 1994, op. cit.

<sup>12</sup> *China Daily*, April 19, 1996.



## RURAL-URBAN MIGRATION

One of the most important quality-of-life improvements during the transition era is a relaxation of the constraints on personal mobility. Prior to 1978 central planning, food rationing and the population registration system combined to make relocation virtually impossible and travel difficult for most people. The urban proportion of the population rose only 5.4 percentage points, from 12.5 percent to 17.9 percent, in the twenty-six years between 1952 and 1978. Since the reform period began, however, this has changed radically. From 1979 to the end of 1993 some 85 million people migrated out of rural areas. By 1995 the urbanization rate had risen to 28.8 percent.<sup>13</sup> Within rural areas there has been a large transfer of labor from agriculture to industry, trade and services. Employment in TVEs rose from 22 million in 1978 to 123.5 million at the end of 1995. 60 million or more temporary migrants ("floating population") look for work annually in urban areas, of whom most come from the countryside.

Thus, well over 200 million people left agriculture in the first fifteen years of reform, if one includes out-migration from the countryside plus occupational shift within the rural work force plus temporary migration. The migration component of this shift has had a number of very substantial positive effects on China's economic and social development. It has raised the living standards of many of the migrants and their families; allowed rural incomes in poor and labor surplus areas to rise (or prevented their decline); fed the growing demand for a flexible labor force generated by rapid urban economic growth; and it has probably slowed the increase in the urban-rural income gap.

At the same time, various problems have attended the population movements. First, changes in household registration are still restricted; migrants who settle informally in towns and cities are not entitled to many public services that full status residents get. Second, there is some indication that migration is contributing to the "feminization of agriculture": at present, an estimated 150 million rural women work in agriculture where they are estimated to comprise up to 70 percent of the farm labor force.<sup>14</sup> This has serious implications for rural women, for their ability to ease the "triple burden" of farm work, child care and elder care, and also for agriculture. Rural women tend to be less well educated and thus less able to learn and adopt new technologies, and less able to obtain credit, while agricultural extension services are heavily male-dominated. Third, there are many reported cases of migrant workers, and especially women migrants, being mistreated. Fourth, some migrant communities in towns and cities are accused of being breeding grounds of various social problems growing in Chinese cities, such as crime, prostitution and drug abuse.

It seems clear that the trend toward greater population mobility is on the whole desirable. The ascriptive character of urban household registration is both inequitable and inefficient. At the same time, the migration of tens of millions of people to cities in a short period of time has put great strain on the urban infrastructure and

<sup>13</sup> *Beijing Review*, 39, 22, May 27-June 2 1996.

<sup>14</sup> UNICEF, *op. cit.*, p. 119.

the job market. The government plans to try to limit annual rural-urban migration to between 30 and 40 million, in part by barring migrants from entering major cities with high unemployment rates.<sup>15</sup>

### HEALTH

The foundations for major gains in public health were put in place before the transition era began. A broad and publicly financed health policy made primary care widely accessible, especially for mothers and children, and emphasized prevention and control of infectious diseases and investment in education, sanitation, and improved nutrition. This approach produced what the World Bank<sup>16</sup> calls "remarkable gains in health and life expectancy in China. . . far beyond what could be expected for China's stage of economic development. . . ." For instance, life expectancy at birth had reached the middle 60s by 1978, the eve of the reform period. The crude death rate had fallen steadily (except for the famine years of 1959–61) from 20 per thousand in 1949 to a low of 6.2 per thousand in 1979.<sup>17</sup>

In the 1980s and 1990s, life expectancy at birth has continued to creep upwards, reaching 68.5 years in 1990 (according to the census of that year) and 69 years in 1994.<sup>18</sup> The crude death rate has fluctuated between 6.30 and 6.90 per thousand (it was 6.57 in 1995, according to the one percent population survey of that year.<sup>19</sup> Infant mortality, having declined steadily until the late 1970s, also stopped falling in the 80s and 90s. While the infant mortality rate (IMR) was officially put at 31 per thousand in 1992, outside observers believe it to be closer to 40 or even 50 per thousand.<sup>20</sup> Moreover, there are large regional variations. Estimates for various years have found rural IMRs to be from 44 percent to almost 200 percent higher than urban rates. 41 urban centers have IMRs below 14 per thousand while those of 89 rural counties exceed 100 per thousand, or 10 percent of births.<sup>21</sup>

Certain trends help explain the stagnation of the crude death and infant mortality rates during the transition period. One is the aging of the population structure, which has been accelerated by the successful "one child policy." Another is the "health transition" that is under way in China. Much of the population, for which the chances of death in infancy and from acute infectious diseases have been greatly reduced, is becoming more subject to morbidity and mortality from chronic diseases associated with smoking and other lifestyle practices (including diet), and from environmental and occupational causes.<sup>22</sup> Third, for those large sections of the population still vulnerable to infectious disease, progress in combatting it has become more uneven, and in some areas it has even been

<sup>15</sup> *Beijing Review*, 39, 17, April 22–28 1996.

<sup>16</sup> World Bank, *China: Long-Term Issues and Options in the Health Transition*, Washington, D.C., The World Bank, 1992, p. xi.

<sup>17</sup> State Statistical Bureau, *Statistical Yearbook of China 1995*, Beijing, Statistical Publishing House.

<sup>18</sup> *Beijing Review*, 39, 10, March 4–10 1996, p. 23.

<sup>19</sup> *Beijing Review*, 39, 22, May 27–June 2 1996, p. 21.

<sup>20</sup> World Bank, *Long-Term Issues and Options*, pp. 6–7.

<sup>21</sup> UNICEF 1994, *op. cit.*, pp. 14–17.

<sup>22</sup> World Bank, *Long-Term Issues and Options*.

reversed. Up to one-fifth of the population, mostly in poorer regions, "still suffers unacceptably high levels of acute respiratory disease, tuberculosis, pneumonia, dysentery, parasitic diseases and micronutrient deficiencies."<sup>23</sup> Infant and maternal mortality rates in very poor counties exceed 10 percent and 0.3 percent of the respective populations, rates that are 50 percent and 100 percent above the national average. Up to 90 percent of poor children suffer from intestinal parasites. A survey in nine provinces in 1992 found about 18 percent of rural children and about 6 percent of urban children to be moderately or severely undernourished.<sup>24</sup> Stunting and low weight for age remain problems, especially in the countryside. Malnourishment (stunting) in 1987 affected about 45 percent of children in households below the poverty line.<sup>25</sup> A survey of health and nutrition conditions found that from 1989 to 1991 the proportion of higher income adults who were underweight declined, while the underweight proportion increased among low income adults.<sup>26</sup>

The increasing unevenness of health care is suggested very broadly by Table 3, which shows the increase in numbers of doctors and hospital beds from 1965 to 1994 by urban or rural area. Since 1980, the number of hospital beds in the towns and cities has more than doubled, but in rural areas it has declined by 7 percent. Similarly, the number of doctors more than doubled in urban areas but increased by only 17 percent in the countryside. In both cases, of course, the urban-rural ratios moved sharply against the rural population. If the numbers were calculated on a per capita basis, the ratios would look even worse for them.

TABLE 3. Medical Facilities and Personnel, 1965–1994.

Measure	1965	1970	1980	1985	1990	1994
<b>No. of hospital beds (thousands)</b>						
Urban .....	458	510	768	962	1,387	1,707
Rural .....	308	595	1,214	1,267	1,237	1,124
Ratio: urban/rural .....	1.49	0.86	0.63	0.76	1.12	1.52
<b>No. of doctors (thousands)</b>						
Urban .....	269	241	527	709	978	1,150
Rural .....	494	461	626	704	785	732
Ratio: urban/rural .....	0.54	0.52	0.84	1.01	1.25	1.57

Source: *Statistical Yearbook of China 1995*, p. 667.

An additional part of the explanation is that, while health care costs have been rising rapidly, public expenditures on health care have not. In fact, public subsidies for preventive services and medical care have tended to decline, leaving a rapidly increasing share of health costs to be borne by patient fees and insurance. By the early 1990s, cost recovery had risen to about 82 percent of health care costs, "probably the highest level for any low-income coun-

<sup>23</sup> *Ibid.*, p. xii.

<sup>24</sup> UNICEF 1994, *op. cit.*, pp. 55–56.

<sup>25</sup> World Bank, *Long-Term Issues and Options*, p. 92.

<sup>26</sup> Barry M. Popkin, "Social Change and its Nutritional Impact: The China Health and Nutrition Survey," *China Exchange News*, 22, 2, Summer 1994.

try."<sup>27</sup> This decline in public commitment to health care is associated with a shift from a broad emphasis on disease prevention to one of treatment. The evidence regarding the effects of these trends on accessibility of health care is mixed. Henderson et al.<sup>28</sup> find that those with the lowest income and education were significantly less likely to have health insurance coverage, and one-fifth of rural households reported to a Ministry of Health survey in 1988 that they could not afford medical care when ill. On the other hand, an eight province survey of young working age adults in 1991 revealed that medical services were still widely available, widely used and relatively inexpensive.<sup>29</sup> Nevertheless, the trends, taken together, suggest that increasing inequality of access to health care resources may make further national progress in overcoming infectious and chronic diseases more difficult.

### EDUCATION

Beyond satisfaction of the most basic needs, improved quality of life involves expanding opportunities for people to develop their capabilities, a process in which education plays a fundamental role. With 132 million children enrolled in primary schools in 1995, China runs the world's largest primary education system.<sup>30</sup> The government reports that 98 percent of children between the ages of 6 and 12 are enrolled in primary schools, and over 78 percent of those between 12 and 16 are in middle schools.<sup>31</sup> China's accomplishments in providing basic education for its large population are great, indeed. In contrast, the enrollment rate in educational institutions above the secondary level was only 1.6 percent in 1992, well below the 4 percent level of other developing countries.<sup>32</sup>

In the past, a Sample Survey on the Situation of Children has found school enrollment rates that were somewhat below the official ones. According to the Sample Survey for 1993, enrollment rates were higher in urban areas (96 percent) than rural (91 percent), and higher for boys (94 percent) than for girls (91 percent). About three-quarters of children not enrolled were girls, mostly in poor and national minority regions. There were large regional variations in enrollment rates, ranging down to a low of 46 percent in Tibet.<sup>33</sup> By 1995, one-third of counties in the poor province of Guizhou had not achieved universal six year primary education. Urban-rural differences are also marked: the illiteracy rate in 1990 was 12 percent for urban areas and 26 percent for rural. In Guizhou, these rates were 21 percent and 41 percent, respectively.<sup>34</sup>

<sup>27</sup> World Bank, *Long-Term Issues and Options*, p. 112.

<sup>28</sup> Gail Henderson, John Akin, Li Zhiming, Jin Shuigao, Wang Jianmin, and Ge Keyou (1992a), "Gender and Welfare Benefits in China: The Distribution of Health Insurance Coverage," Paper presented at conference, "Engendering China," Harvard University and Wellesley College, February 1992.

<sup>29</sup> Gail Henderson, John Akin, Li Zhiming, Jin Shuigao, Ma Haijiang, and Ge Keyou (1992), "Equity and the Utilization of Health Services: Report of an Eight-Province Survey in China," Paper prepared for presentation at the Annual Meeting of the Association for Asian Studies, April 1992.

<sup>30</sup> State Statistical Bureau, "Statistical Communique," 1996, p. 28; UNICEF, 1994, p. 87.

<sup>31</sup> *Beijing Review*, 39, 19, May 6-12 1996.

<sup>32</sup> *Beijing Review*, 39, 10, March 4-10 1996.

<sup>33</sup> UNICEF 1994, pp. 87-89.

<sup>34</sup> Christine Wong, ed., *Financing Local Government in the People's Republic of China*, Oxford University Press, forthcoming, Ch. 1.

The decentralization of China's fiscal system that has occurred during the transition period has weakened its redistributive role and given rise to widening regional disparities and urban-rural differences in education, as in other public services.<sup>35</sup> Poorer localities have found their general revenues increasingly inadequate to finance the costs of education and have resorted to surcharges, tuition, and other kinds of fees charged to pupils' families.<sup>36</sup> Fully half of boys and nearly all girls in some poor areas do not attend school and will not become literate. An examination of schools in poor villages in Shaanxi Province in 1993 showed that most were old, poorly built and dilapidated, teachers were grossly underpaid, and school fees and other costs came to 5–25 percent of the average per capita income of poor households. In the absence of local employment opportunities, families had little incentive to make such high investments in education. For China as a whole, the single most important reason for children not to attend school was financial difficulty.<sup>37</sup> Such current trends are complicating the prospects for further improving China's admirable record in education. In poor areas, they call into question the national commitment to broader educational opportunities for all.

#### THE STATUS OF WOMEN

Some quality of life issues relate specifically to women. There are over 400 million women over 15 years of age in China, of whom some 300 million are economically active. About two-thirds of urban women and over three-quarters of rural women participate in work outside the home. Women have experienced much progress in recent decades with regard to improved living conditions and greater opportunities to develop their abilities. They are widely deployed in the labor force, making up 44 percent of employees and a majority of farm workers. They are represented, although not equally with men, in scientific and technical work, government and social organizations and business and financial enterprises. Women are beneficiaries of labor protection laws, and China officially espouses the principle of equal pay for equal work.

At the same time, Chinese women still face many impediments to full participation in economic, political and social life. They are underrepresented in the political arena, constituting only 21 percent of deputies to the National People's Congress (1993) and very small percentages of senior government officials at all levels from the center to the township. In the economic realm they are similarly underrepresented in higher managerial positions and overrepresented in jobs requiring heavy labor such as farming, where they constitute as much as 70 percent of the work force.

In societies where there is relatively less discrimination against women, males consistently experience higher rates of infant and child mortality than do females, who are biologically less vulnerable. Accordingly, about 105–106 males are born for every 100 females. However, "relative to their biological potential, female infants in China have higher mortality rates than male infants," and

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> UNICEF 1994, p. 90.

this disadvantage is particularly marked in specific provinces, such as Jiangxi, Guangxi, Sichuan and Guizhou.<sup>38</sup> The 1994 national population sample survey revealed a sex ratio at birth in that year of 116.3 males to 100 females, substantially above the expected ratio.<sup>39</sup> The 1995 one percent sample survey revealed an overall female-male ratio for China of about 0.96, below the ratio of well over 1.0 that should hold if both sexes receive equal care.<sup>40</sup> These statistics are suggestive of the strength of male preference that survives in rural China. However, the issue they raise of "missing women," to which Amartya Sen has called attention,<sup>41</sup> is a complex one that cannot be further explored here. UNICEF has pointed out the need for further study to identify the causes of abnormally high female mortality in those areas where it exists.

Beyond infancy, the most basic issues of wellbeing faced by women, especially in rural areas, are those of domestic violence and the kidnapping and sale of women. There are indications that both kinds of abuse may have increased in recent years. Although they are forbidden by Chinese law, they tend to occur in circumstances that make detection difficult. Moreover, as elsewhere in the world, there is a tendency to regard domestic violence as a "family matter" to be handled within the familial community.

One impediment to fuller participation by women in social and political life is the triple burden borne by most Chinese women, who must work outside the home and also assume the main responsibility for child care, care of the aged, and housework. Women also bear practically sole responsibility for birth control. In the workplace, the new market conditions have given rise to new problems. Enterprises often refuse to hire women or find excuses to fire female employees on the ground that child-bearing and child-rearing responsibilities cause women to be absent more often and generally less productive than men. Enterprises are responsible for providing maternity leave for their women employees, a burden many managements would like to avoid. As a result, women constituted 60 percent of the urban unemployed in 1993, while making up only about 38 percent of the urban employed. The proportion of women among the unemployed has been increasing.<sup>42</sup>

In the countryside, women's access to land and credit is limited. While basic land allotments for subsistence take both male and female members of the household into account, contract land, from which output can be sold, is often parcelled out only according to the number of male household members, and usually will not be transferred to daughters. Similarly, credit agreements are usually restricted to males. Such problems concerning women's status complicate China's goal of reducing population growth, for international experience indicates that education, income earning opportunities and higher social status for women are powerful inducements to lower fertility.

In rural areas the household responsibility system gave the family greater command of its own labor and a stronger link between

<sup>38</sup> UNICEF, 1994, pp. 14-15.

<sup>39</sup> *Statistical Yearbook of China* 1995, p. 62.

<sup>40</sup> *Beijing Review*, 39, 22, May 27-June 2 1996.

<sup>41</sup> See, e.g., Amartya Sen, "Women's Survival as a Development Problem," *Bulletin of the American Academy of Arts and Sciences*, November 1989.

<sup>42</sup> ILO, *op. cit.*, p. 9.

work and income than under the commune system of old. The incentive to have one's children work and contribute to family income is thus stronger than before, while the rising direct cost of schooling presents a disincentive to keeping children in school. This incentive structure applies particularly to girls, who traditionally marry outside the village and cannot care for their own parents in old age. Since there are no pensions for the rural population, sons constitute their parents' chief means of support in old age. Parents thus have a weaker material interest in educating daughters than sons. Of the 182 million adults who were still illiterate in 1990, 70 percent or 127.7 million were women and the illiteracy rate among females 15 years and above was 32 percent. Even omitting the older generation from consideration, the rate among women between the ages of 15 and 40 was 14.4 percent, more than three times as high as their male counterparts.<sup>43</sup>

Improved access to education for rural girls would be an important ingredient in accomplishing several of China's most important social developmental goals, including (a) further reductions in fertility; (b) building the capacity of farmers—who are increasingly women—to introduce and cope with new technologies and farming methods, including sophisticated methods of sustainable farming, that will be crucial to China's ability to meet future food needs; and (c) achieving the goals of the "8-7" program to eliminate absolute poverty.

#### ENVIRONMENTAL ISSUES

The very high growth rates that China has achieved during the reform period—averaging 9.5 percent in real terms in the 15 years ending in 1994—have quickly brought the issue of sustainability to a prominent position. China had already been faced with a shortage of basic natural resources relative to its large population. It has only 28 percent of the average per capita world supply of fresh water. Its cultivated land constitutes only 7 percent of the world total, from which it must feed 22 percent of the world population. Crucial as the high speed economic growth has been in raising living standards and minimizing the social disruption accompanying transition to a market economy, it has also promoted further widespread and severe environmental degradation in both rural and urban areas. Pollution of air, water and land has worsened, and the loss of farmland to industrialization, housing and road construction has accelerated. In addition, China plays a significant role in shaping the global environment, contributing well over 10 percent of both global greenhouse gases and global ozone depleting substances.

China's most severe environmental problems concern the atmosphere and water supply. Atmospheric pollution stems largely from the dependence on burning coal, which supplies over 75 percent of all commercial energy. About 1.2 billion tons of coal, mostly low-grade and dirty, are burned each year (one ton per person). 35 percent is consumed by power stations, the other 60 percent by households and industry, mainly in boilers for the generation of heat and steam that embody a very low energy efficiency and high energy

<sup>43</sup> UNICEF 1994, p. 105.

use per unit GDP.<sup>44</sup> This represents a big loss to the economy, as well as a threat to the environment and to human health. Coal creates problems at all stages of its production and consumption. Mining degrades the land and pollutes ground and surface water. Burning coal pollutes the air, creates acid rain, contributes to global warming and leaves a solid waste disposal problem in the form of ash residue. Acid rain is responsible for increasing crop losses in China, and has become an international problem as it crosses borders.

China's energy sector is burdened with underdeveloped management and technology. Efficiency of energy use is low and waste is high. Faced with chronic shortages of energy for its racing economy, the country will emphasize both increased efficiency and expanded supply over the coming years. Expansion of coal burning is constrained now by transport bottlenecks and the limited capacity of existing thermal power stations. China wants to add some 17 gigawatts to power generating capacity each year up to the year 2000, for which 30 percent of the financing would come from foreign investment. But fuller participation of foreign investors in power generation is impeded by various barriers, including uncertainties about energy pricing, contract law, profit repatriation, distribution over provincial lines, and general lack of experience with private power provision. More generally, China needs to develop a comprehensive energy planning and management system suitable to sustainable development; greatly improve energy efficiency and promote conservation; widely disseminate cleaner coal technologies as well as less polluting mining techniques; and develop renewable energy sources, especially in off-grid areas where poverty is most widespread.

Coal combustion will undoubtedly grow with China's rapid industrialization. One result is likely to be an increase in China's absolute production of greenhouse gases, as well as in its share of world emissions. China was one of the first countries to ratify the U.N. Framework Convention on Climate Change, and has established an inter-agency National Climate Change Coordination Group, responsible for formulating policies and programmes in this area. It has promoted research on greenhouse gas sources and strategies for reducing emissions. China's official attitude is that, in the context of pursuing rapid economic development which is of necessity based largely on fossil fuel energy (especially coal), it seeks to reduce greenhouse gas emissions and looks for technical and financial assistance in doing so. In common with other developing countries, China regards the industrialized world as largely responsible for global warming and therefore the proper source of major funding for its alleviation.<sup>45</sup>

China also faces a severe problem of water shortage and water pollution: more than 300 cities lack sufficient water and agriculture

<sup>44</sup> *Zhongguo 21 shiji yicheng, Zhongguo 21 shiji renkou, huanjing yu fazhan baipishu* (China's Agenda 21, white paper on China's population, environment and development in the 21st century), Beijing, Zhongguo Huanjing Kexue Chubanshe, 1994, Ch. 13. See also National Environmental Protection Agency and State Planning Commission, *Environmental Action Plan of China, 1991-2000*, Beijing, China Environmental Science Press, 1994, Sec. 3.2.

<sup>45</sup> See *World Resources 1994-95*, A Report by the World Resources Institute and the International Institute for Environment and Development, New York, Basic Books, 1995, Ch. 4, "China."



cannot get the irrigation water it needs. Green Revolution technologies require vast amounts of water, which is chronically short, especially in North China. Moreover, much of the existing water supply is seriously polluted. At present only about 20 percent of municipal waste water is treated, and of that only half meets China's national standards for waste water treatment. The trend toward liberalizing the prices of natural resources, which has made progress elsewhere, has not reached this crucial and severely scarce resource: the fee structure for industrial discharge of waste water is very low, and water use is virtually free for households.<sup>46</sup>

The overarching framework drawn up by the Chinese government for dealing with environment and sustainable development is *China's Agenda 21: White Paper on China's Population, Environment and Development in the 21st Century*, adopted by the State Council in March 1994. This "white paper" made China the first industrializing country to promulgate a comprehensive national plan for sustainable development as mandated by the Agenda 21 document adopted by the 1992 UN Conference on Environment and Development. It sets out the principles for achieving sustainable development in both the social and environmental spheres.

China has committed itself to achieving a number of concrete environmental goals by the end of the century, including specific limits on industrial waste water discharge and specific treatment rates for waste water; limits on sulphur dioxide emissions; high treatment rates of industrial waste gas emissions; increased rates of utilization of industrial solid wastes; an increased afforestation effort; annual targets for control of land threatened with desertification; targets for the protection of cultivated land; and a goal of 7 percent of the nation's territory to be devoted to nature reserves. To achieve these goals will require substantial capacity building at all levels of society. While much progress has been made in establishing a legal framework for environmental protection, achieving compliance with various existing laws has been a major problem. Much of the current legal framework was developed to fit the context of a planned economic system and requires reorientation to the conditions of a market economy. China needs to establish a comprehensive national system for measuring, monitoring and managing its natural resources, including the concomitant statistics, planning and information support systems. A "green" national accounts system that factors depletion of natural resources into economic growth accounting is needed so that the full costs of economic activity are properly counted and appreciated. An important subset of this issue concerns natural resource prices, which have historically been very low in China, constituting a subsidy for depletion and pollution. Finally, increasing public education about the importance of environmental protection is a national priority. The current lack of public awareness, including among some decision makers, weakens support for national protection policies and impedes the movement of the national Agenda 21 from paper to practice.

China's basic decisions about the structure and pattern of development have often been made without consideration of their environmental impact. However, in mid-1996, as the country stood

<sup>46</sup> Ibid, pp. 75-76.

poised on the verge of building a large automobile industry, with predictable effects on pollution, greenhouse gas emissions, loss of farmland, and resource depletion, vigorous resistance developed, in part on environmental grounds. The scientific community came out strongly against encouraging private automobile use and in favor of putting resources into the development of efficient public transport.<sup>47</sup>

### AGRICULTURE AND FOOD SECURITY

The issue of food security is perhaps nowhere more closely linked to quality of life than in China, a country with a history of devastating famines, the last one well within living memory. Agriculture and farm production trends are dealt with elsewhere in this volume; this section is confined to discussing some of the immediate and longer-term problems that concern the issue of food security.

The accomplishments of Chinese agriculture are great indeed, starting with the provision of adequate nutrition to most of the large population despite a small per capita resource base. Total foodgrain production rose from about 190 million metric tons in 1957 (the last year of the First Five Year Plan), to 305 MMT in 1978 (the eve of the rural reforms), to 465 MMT in 1995. The gain of 160 MMT in the latter 17 year period was accomplished despite considerable agricultural diversification that gave rise to even faster growth of nonstaple foods such as vegetables, meat, eggs and edible oils, in response to the demand from rising incomes.

Yet the supply-demand balance in agriculture remains fragile. Even a small decline in the grain harvest in 1994 helped to produce steep price increases (by 51 percent for cereals) and severe hardships for millions of poorer Chinese, especially in the countryside. The widespread imposition of multiple taxes and fees by local officials effectively reduces the price received by farmers and harms their incentives. New factors introduced by the market environment have changed the welfare implications of any given production level. For instance, high inflation and uncertainty about prices have caused farmers to hoard grain, which fuels inflation. Poorer farmers whose crops fail now may not be able to afford grain in the market. Lack of clear legal title to the land discourages farmers from making investments, while continuing legal ambiguity about leasing land inhibits labor mobility.

Agriculture is also subject to some long-term forces that threaten its continued ability to meet demand. These include (a) the loss of prime farmland to housing, urbanization, road building, and factory construction; (b) land degradation, including desertification, salinization and erosion of top soil; (c) wasteful and excessive use of farm chemicals; and (d) chronic shortage of water.

China has lost about 5 million hectares of farmland since 1978, about five percent of its official estimate of total cultivated land. However, the statistical authorities acknowledge that the figures for cultivated land are underestimates;<sup>48</sup> China may have as much as a fifth more land in cultivation than reported. The competition

<sup>47</sup> *New York Times*, May 4, 1996.

<sup>48</sup> *Statistical Yearbook of China 1995*, p. 331.

for land has been an unequal one in that nonfarming uses have easily outbid agriculture, on the margin, for the entire reform period. Although the loss of farmland to more lucrative uses is not necessarily a bad thing, it may often be less than optimal. This is because the social value of keeping fertile land in agriculture to help ensure food security for China's large population is likely to exceed the current market value of farming the land, at least in the rapidly growing suburban areas. The government is trying to stem the tide of land loss, but expects that it will continue over the next several years. In part this is an inevitable result of development, and China still has more arable land per capita than Japan or Korea. However, the size of China's total food demand relative to the world market in grains invests the loss of its farmland with greater significance than would be the case for a smaller country.

Various kinds of deterioration of land also plague China's agriculture. Desertification threatens almost 4 million hectares of farmland and 5 million hectares of pastureland. Nearly 16 percent of the total land area is desert and the rate of desertification appears to be increasing. It is being combated principally by the planting of sand-break forests. Salinization, which affects some 7 million ha. of irrigated land, is mainly due to improper drainage and irrigation. Water logging and low oxygen levels hurt yields on over 4 million ha. of rice paddy land, while some 2.6 million ha. of farmland have been ruined by irrigation with untreated urban sewage and industrial waste water.

Erosion remains an extremely serious problem in China. Severe soil erosion affected some 14 percent of farmland in 1990, 15 percent more land than in 1978. Cultivation of hillsides, slopes and other fragile land, which comprise about 65 percent of China's land area, has contributed to the problem. While deforestation and inappropriate cultivation practices have strengthened natural forces causing erosion, the problem has also been aggravated by the decline in soil quality associated with massive uses of chemical fertilizer. According to *China's Agenda 21*, over 20 million hectares, or one-fifth of China's cultivated land, has been contaminated by pollution to some extent. Indiscriminate use of fertilizer and pesticides has been a contributing factor.

China's traditional labor-intensive cultivation practices emphasizing organic recycling, reliance on draft animals, and rotation of nitrogen-fixing crops have to a considerable extent given way to a one-sided emphasis on farm chemicals. Chemical fertilizer inputs, in terms of nutrient content, increased from 8.8 million tons in 1978 to 35.7 million tons in 1995,<sup>49</sup> and pesticide use also soared. Organic sources of nitrogen were surpassed by synthetic sources as long ago as 1976 and now account for a diminishing fraction of total plant nutrients. Crop rotation has given way to continuous planting of soil-depleting crops such as corn. While these changes have contributed to China's rapid growth in farm output, they also spell trouble for the environment and for the sustainability of high yields. Pesticides create resistant strains of pests and run off to contaminate water as well as soil; overuse of chemical fertilizer has damaged soil quality in some regions and also contributed to water

<sup>49</sup> State Statistical Bureau, "Statistical Communique," 1996.

pollution; continuous cropping depletes the soil's organic content.<sup>50</sup> A more sustainable long-run approach to farming would put greater emphasis on integrated pest management techniques, soil improvement to retain and preserve scarce water, renewed encouragement of organic nutrients like manure, and mixed cropping and rotation practices. China not only has much traditional experience in such farming methods, but it also stands on the world frontier of new scientific research in such high yield forms of sustainable agriculture.<sup>51</sup>

### CONCLUSION

With its *Agenda 21* program, China explicitly recognized the need to make economic development responsive to social and environmental needs. To integrate social developmental objectives into long-term planning is to embrace the fundamental principle of the Copenhagen Declaration (1995) that "economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development, which is the framework for our efforts to achieve a higher quality of life for all people."

Yet that principle is not always observed in practice. Although China's multifaceted accomplishments in enhancing social development and quality of life during the transition period have been very substantial, the problems reviewed above loom large as well. To be sure, rapid economic growth and social change have helped to alleviate some of them (e.g., unemployment), but they have only worsened others (e.g., environment). Where very high growth has held the wolves at bay, return to more normal rates will make necessary a more effective set of social policies, especially with respect to unemployment and income support programs. China cannot simply grow its way out of the looming social development problems that face it, but appropriate development must be a central part of any long-run solution.

<sup>50</sup> Vaclav Smil, *The Bad Earth: Environmental Degradation in China*, Armonk, NY, ME Sharpe, 1984. See also Department of Agro-Regional Planning, Ministry of Agriculture, PRC, "China's Policies & Planning on Sustainable Agriculture and Rural Development," 1992.

<sup>51</sup> For a discussion of environmental problems pertaining to land and agriculture, see *Environmental Action Plan of China*, Sec. 3.5.

# THE IMPACT OF TOWNSHIP, VILLAGE AND PRIVATE ENTERPRISES' GROWTH ON STATE ENTERPRISES REFORM: THREE REGIONAL CASE STUDIES<sup>1</sup>

By Anthony Y.C. Koo and K.C. Yeh \*

## CONTENTS

	Page
Summary .....	381
Introduction .....	382
Sources and Patterns of TVP Growth .....	383
Creeping Capitalism: The Wenzhou Model .....	384
The Sunan Model .....	387
The Pearl River Delta .....	389
Problems and Prospects for Future Growth .....	392
The Effects on Economic Transition .....	395
Rural Enterprises and the SOEs .....	395
Impact on Economic Transition .....	398
Concluding Remarks .....	401

## SUMMARY

This paper examines the causes and patterns of growth of rural enterprises in three regions and explores their implications for enterprises reform. The analysis suggests that, unless the Party leadership decides to suppress its growth, the very factors that contributed to the rise of rural enterprises are likely to remain effective in sustaining their future growth. These factors include the vigorous entrepreneurship of the local businessmen, the active support of the local cadres, and rapidly expanding domestic and external markets. While the rural enterprises compete with the state-owned enterprises for markets and resources, they also pressure the latter to perform more efficiently. At the same time, some rural enterprises complement the state-owned enterprises through backward and forward linkages. Furthermore, the rural enterprises contribute substantially to state budget revenues, thus enhancing the capability of the government to finance the restructuring of the state-owned enterprises. More significantly, the rural enterprises keep chipping at the old system and introduce institutional innovations

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<sup>1</sup>This paper is a summary of three studies by Anthony Y.C. Koo: "Creeping Capitalism: the Wenzhou Model and Its Nationwide Effect," in K.C. Yeh and Depiao Tang, eds., *Hainan xiandahua yu Taiwan fazhan jingyan* (The Modernization of Hainan and Taiwan's Development Experience), Hong Kong University of Science and Technology, Hong Kong, 1995, pp.21-43; *The Sunan Model of Regional Development: Improvisation in Gradual Transition*, 1994, forthcoming; and *The Pearl River Delta and China's Open Door Policy*, 1995, forthcoming.

that help to establish ground rules for a market economy in which the state-owned enterprises must eventually learn to survive and grow.

## INTRODUCTION

One striking feature in China's economic transition is the sharp contrast in the development of the state-owned enterprises (SOEs) and the township, village and private enterprises (TVPs). While the output of the SOEs continued to grow steadily, their performance paled in comparison to the soaring success of the rural enterprises.<sup>2</sup> To redress the imbalance, the government has concentrated its effort in revitalizing the SOEs, and at times has curbed the growth of the TVPs, particularly the private enterprises. Thus far, the approach has not been successful.<sup>3</sup> An interesting question arises. Is it possible that the optimal path to reform exhibits a turnpike property, in that, to restructure the SOEs, it might be more effective to go by an indirect route of nurturing the TVPs' growth instead of concentrating all the resources and effort on transforming the SOEs?<sup>4</sup> Much depends, of course, on the extent to which the TVPs generate pressure on, as well as support for, the SOEs and thereby accelerate the latter's growth and reform. This paper explores this issue on the basis of the experience of TVP growth in three regions in China: Wenzhou, Sunan and the Pearl River Delta (PRD).

TVPs exist all over China. Besides the three cases under study, there are other "models" such as Baoji in Shaanxi, Zhangte in Hunan, Minquan in Henan, Kengce in northern Jiangsu, and Kaoyang in Hebei. However, the three selected regions were the first to develop and the most important in terms of their shares in total output of rural enterprises in China. By and large, they are representative of rural enterprises in the coastal regions where both the TVPs and SOEs are far more developed than their counterparts in the interior. The inferences based on these case studies should be useful in better understanding the growth of an important sector and its implications.

The paper addresses the following three questions respectively: How did the rural enterprises grow so rapidly? Is their growth sustainable? And, what effects have the rise of the rural enterprises had on the SOEs in particular, and on China's economic transition in general? The final section presents some concluding remarks on the implications of TVP growth for the reform of the SOEs.

<sup>2</sup>We define rural enterprises to include collective, private and joint private-collective enterprises in rural areas. The term is used here interchangeably with TVPs. Note that there are some ambiguities in the Chinese usage of the term rural enterprises. See Lin Qingsong and William Byrd, eds., *Zhongguo xiangzhen qiye di lishiheng cuqi* (The Historical Rise of China's Rural Enterprises), Oxford University Press, Hong Kong, 1994, pp. 1-2, and Samuel P.S. Ho, *Rural China in Transition*, Clarendon Press, Oxford, 1994, pp. 20-27.

<sup>3</sup>As recent as 1990, the gross value of industrial output of the SOEs was more than double that of the TVPs. By 1994, it fell below TVP output. Over the same period, losses incurred by the state-owned industrial enterprises with independent accounts increased from 34.8 to 48.2 billion yuan (renminbi). State Statistical Bureau, *Zhongguo tongji nianjian 1995* (China Statistical Yearbook 1995), China Statistical Publishing House, Beijing, 1995, pp. 365, 377, 403.

<sup>4</sup>In borrowing the turnpike concept, we assume that the Party leaders have a finite but fairly long time horizon with respect to the reform process. The assumption is based on statements by Li Peng and others who projected a 10-30 year schedule. *China Daily*, January 13, 1992, p. 1, and *Jingji cankao bao* (Economic References Daily), Beijing, July 19, 1992, p. 4. For the original turnpike theorem, see Robert Dorfman, Paul A. Samuelson, and Robert M. Solow, *Linear Programming and Economic Analysis*, McGraw-Hill, New York, 1958, pp. 309-345.

## SOURCES AND PATTERNS OF TVP GROWTH

The phenomenal growth of the rural enterprises has been one of China's major economic achievements since the Party leaders embarked on a program of reform and opening to the outside world. The upsurge is all the more striking if we recall that the rapid development occurred under some very unfavorable conditions. In the late 1970s, rural per capita income was rather low, the peasants had little education, savings or capital stock, and state investments in the rural areas were minuscule. How did the peasants overcome these difficulties and develop rural enterprises into a leading sector almost overnight?

Several hypotheses have been advanced. The common theme is that rural poverty and chronic unemployment drove the peasants to develop rural enterprises, and this was made possible by the central government's momentous decision to liberalize controls of the economy, and by the active support of the local governments.<sup>5</sup> While these factors undoubtedly have a part to play, there are others that have been overlooked, or their emphasis has been misplaced. We propose the following alternate working hypothesis. During the initial stage of China's transition from a centrally planned system to an open, market economy, many supply-demand gaps in the economy began to surface. There were supply gaps originating partly from the pent-up demand for certain consumer goods that had been in short supply for decades, partly from the increase in the peasants' income after agricultural reform, and partly from the inefficient distribution system, a legacy of the past. Then there were also demand gaps. The peasants who prospered from agricultural reform had accumulated some savings but outlets for their investment were limited. The most important demand gap was in the demand for the farm labor. In localities like the ones under study, entrepreneurs emerged to fill these gaps by exploiting the comparative advantages of each locality. They were the key figures who initiated the development of the rural enterprises. With the support of local cadres, these entrepreneurs pressed forward the opening of markets (as in Wenzhou), and markets in turn opened new horizons for the entrepreneurs (as in Sunan). In short, the peasants were highly motivated to increase their incomes, the surplus workers were eager to seek employment, the economic transition provided the opportunity, the entrepreneurs led the drive, and the local officials lent their political support for the rural enterprises to develop, at a time when the central authorities allowed, albeit hesitantly, the transition to proceed in the rural areas.

Who were the entrepreneurs in the three cases and from where did they come? In Wenzhou, they were the thousands of salesmen and purchasing agents who wove a nationwide network of marketing outlets and sources of material supply. Wenzhou has a long history of a large number of its people traveling all over China as

<sup>5</sup>See, for example, Development Research Center, State Council, *Jingji fazhan kaike yu zhengce* (Economic Development, Reform and Policies), Social Science Documents Publishing House, Beijing, 1994, pp.1062-1064; Yia-Ling Liu, "Reform from Below: the Private Economy and Local Politics in the Rural Industrialization of Wenzhou," *China Quarterly*, June 1992, pp.293-316; Ma Rong, Wang Hansheng, and Liu Xiding, eds., *Zhongguo xiangzhen qiye de fazhan lishi yu yunxing jizhi* (The Development History and Operational Mechanism of China's Rural Enterprises), Beijing University Press, Beijing, 1994, pp. 1359-1366.

traders and craftsmen. In the period prior to 1978, their business activities were suppressed for ideological reasons. But once the state-imposed restrictions on trade and other private business were lifted, the dynamism of Wenzhou's enterprising traders burst out. Not only did they provide services as middlemen linking the consumers with the producers across China, they organized the family enterprise system, mobilizing local capital and labor to produce for the market on which they had accumulated extensive information. In Sunan, the entrepreneurs were largely the managers of former commune and brigade industries. Many of these industries were built in the 1960s and 1970s so that these managers had some management experience. Moreover, Sunan lies in the vicinity of large cities and many managers had close political connection with those of the SOEs in the big cities, drawing from the latter the management and technical skills they needed. In the Pearl River Delta, the entrepreneurs came largely from nearby Hong Kong. Many businessmen in Hong Kong have family ties with residents in this region. It was natural for them to organize joint ventures with the local people, combining their capital, technology and management expertise with local labor, land and other domestic resources.

Although the origins of these entrepreneurs were different, the basic functions that they performed in all cases were the same. Essentially they initiated the growth process by identifying and developing markets for products that they could produce at relatively low cost because of the comparative advantages each locality had. And they built new institutions to fit the political environment and economic needs. As their comparative advantages and local needs differed, their development paths also varied.

#### CREEPING CAPITALISM: THE WENZHOU MODEL

In Wenzhou, the development has been based on farm family units in a rural environment of small towns and villages where local entrepreneurs played a crucial role. Its major comparative advantage, the Wenzhou people's craftsmanship and marketing skills, stems from a long tradition of its handicraftsmen and merchants emigrating to other parts of the country. The emigration originated in the peasants' attempt to supplement their meager income by exporting labor. The economic consequences, however, were profound. These wandering craftsmen and peddlers brought back new concepts, ideas, business experience and accumulated savings. Many have become enterprising traders, roaming all over China and forming a nationwide network supplying market information, goods, and technology. In the late 1970s, Wenzhou had over 100,000 such traders. By the time the Party leaders opened the door to reform, they were well positioned to move forward. At first, they simply played the role of middlemen linking the producers with the consumers. As such, they were actually developing a new distribution system. But, being entrepreneurs, they quickly moved beyond simple trading. With their knowledge of the markets, they obtained orders from buyers outside and farmed them out to local family factories to manufacture the products. In the process, they negotiated contracts, scheduled production, searched for raw materials, equipment and parts, and financed the deals.



In Wenzhou, the basic business unit is the privately owned family factory. In the late 1980s, Wenzhou had 133,000 such factories. They produced mostly petty commodities indispensable to people's daily lives, which the large SOEs overlooked either because their costs were higher or because the state planning departments did not bother to include them in their production plans. The production of these products generally required a relatively small amount of capital and simple technology so that it was easy for the family factories to get started, and, once established, to quickly respond to changing market demands. Examples are such products are buttons, medals, badges, plastic flowers, plaited baskets, sign boards, footwear, zippers and apparel. Production costs were relatively low not only because of the cheap family labor, but also because they often utilized discarded or surplus materials of the SOEs.<sup>6</sup> Furthermore, as markets expanded, specialization and division of labor became possible, for example, in the form of product specialization by different localities and functional specialization in the production and marketing process.<sup>7</sup>

Expansion in trade and manufacturing inevitably created demand for supporting services, such as telecommunications, transportation, packaging, information, technology acquisition, hotels and restaurants. Consequently, the tertiary sector vigorously grew along with the rural industries.

Crucial to the development process was the emergence of Wenzhou's markets.<sup>8</sup> The markets were spontaneously established by the traders to facilitate exchange of goods and services between producers and consumers, a basic function which the distribution system under state planning had failed to perform. At the beginning, the traders set up roadside stalls to sell various petty commodities like watch bands and gloves. Subsequently they opened shops and stores, established a nationwide network of salesmen, and organized specialty markets. By the late 1980s, Wenzhou had 415 specialty markets, of which 10 were nationwide wholesale markets where buyers and sellers from all over China came to trade.<sup>9</sup> Each specialty market had a relatively complete assortment of products. Prices were competitive, and the volume of transactions relatively large.

As the commodity markets developed, factor markets also emerged, albeit still in a formative stage. For example, various forms of a labor market have been developed. In the city, the government has set up labor exchanges. Then there were private placement services. And, workers sometimes directly applied for

<sup>6</sup>For example, some families made shoes and handbags from plastic scraps, and appliances, plates, souvenir buttons and zippers from waste aluminum.

<sup>7</sup>For specific examples, see Zhou Erhliu and Zhang Yulin, eds., *Zhongguo chengxiang xietiao fazhan yanjiu* (Studies in the Coordinated Development of China's Cities and Towns), Oxford University Press, Hong Kong, 1994, p. 107 and Wang Xiaoqian and Bai Nansheng, "New Developments in Rural Commodity Production," *Renmin ribao* (People's Daily), December 8, 1983, p. 5

<sup>8</sup>Some, like Fei Xiaotong, believe that the significance of the Wenzhou model lies not so much in the development of family industries but rather in the nationwide markets organized by the Wenzhou traders. Fei Xiaotong, *Xingxing fu xingxing* (On And On I Treaded), Ningxia People's Publishing House, Yinchuan, 1992, pp. 282-283.

<sup>9</sup>Examples are the buttons market at Qiaotaozhen, Yongjia county, the construction materials market at Beibaixian, the plastic products and badges market in Jinxiang, and the electric wares market at Liushi, Yueqing county. At the buttons market at Qiaotaozhen, there were some 700 stores and stalls selling 1300 different types of buttons produced by factories all over China. About 40 percent of those sold here were produced locally. Fei, *op. cit.*, p. 275.

jobs and enterprises advertised their openings in the local newspapers. The markets were as yet imperfect but they facilitated a higher degree of labor mobility than ever before. The surplus labor in the less developed parts of the county flocked to the towns. Skilled workers and trained experts from the cities sought employment in the rural areas. Among them were those from SOEs, as the pay scale in the private sector was higher than for comparable jobs in state enterprises. Many other SOE workers had second jobs with the rural enterprises.

Of particular significance was the development of financial markets. Prior to the 1980s, in Wenzhou as in other areas, the rural financial system consisted of the state-owned Agricultural Bank of China and the rural credit cooperatives.<sup>10</sup> The interest rates for deposits and loans were fixed at relatively low rates so that there was excess demand for credit at these subsidized rates. The household enterprises, being privately owned, had low priority in the credit plans of the state banks and thus had a hard time getting credit. Meanwhile, the demand for financial services by the rural enterprises increased sharply as their output surged forward. Again a gap appeared, and not surprisingly, the private sector rose to fill the gap. Private banks, money shops, credit associations, and pawn shops were opened, offering credit at interest rates that reflected supply and demand at the local money market. These floating rates were considerably higher than the fixed rate set by the state banks and credit cooperatives. Subsequently, the financial market in Wenzhou expanded beyond the county boundary. Credit unions in different villages within the county first extended credit to each other and later to those in other provinces. Towards the late 1980s, a long-term credit market was in the making. In 1986 the local government issued regulations for stocks and bonds as some enterprises and credit unions were ready to reorganize into stock-holding companies. The banks provided negotiable savings certificates and other financial instruments. In sum, Wenzhou was moving far ahead of many other areas in developing financial markets.

By the mid-1980s, economic growth and institutional reform had dramatically changed the economic landscape in Wenzhou. What used to be primarily a rural community had now become highly urbanized.<sup>11</sup> Many small towns sprang up. The reason for the proliferation of small urban centers is not hard to find. At the initial stage of development, the peasants could "leave the soil without leaving the villages." But as the economy expanded in scale and complexity and the workers' living standard rose, transaction costs under conditions of industrialization without urbanization became unduly high.<sup>12</sup> The growth of small towns in the rural areas is a natural outgrowth of the rise of rural industries, as the entrepreneurs continuously searched for ways to maintain their competi-

<sup>10</sup> For a discussion of China's rural financial system, see Xu Xiaobo, Deng Yingtao, Xue Yuwei, Liu Jianjin, and Hu Bin, *Zhongguo nongcun jinyong di bianke yu fazhan 1978-1990* (The Evolution and Development of China's Rural Finance, 1978-1990), Oxford University Press, Hong Kong, 1994.

<sup>11</sup> The share of urban population in total population increased from 13.5 percent in 1980 to 34 percent in 1986. Zhou and Zhang, *op. cit.*, p. 124.

<sup>12</sup> See Stephen N.S. Cheung, *Zhongguo di qiantu* (China's Future), Xinbao, Hong Kong, 1985, pp. 33-38. Cheung made the perceptive observation at a time when industrialization without urbanization was considered the appropriate development strategy for China.

tive edge by lowering costs. It is interesting to note that in Wenzhou the local residents, rather than the government, funded the construction of new towns and expansion of old ones.

Apart from initiating rural industrialization and fostering urbanization, the entrepreneurs in Wenzhou had yet another major role to play: as institutional innovators they constantly introduced organizational changes that enabled them to thrive in the midst of political uncertainties during the transition. In the past, Wenzhou's economic fortunes have varied with political winds. Even though economic reform has been accepted as the long-term goal for China, there have been vacillations in the Party leaders' attitude and policy towards economic liberalization. Wenzhou's market economy suffered setbacks when the conservatives gained power and vice versa. One major problem has been the ideological bias against private ownership that dominated the Wenzhou economy. As fear of revival of private business among the Party leaders remained strong, many individual operators registered with the local authorities as collectively owned units under the local administration to avoid political harassment. Others attached themselves to established public enterprises, paying a fee for the use of the latter's name, stationary and bank account numbers. Similarly, new institutional changes were adopted on the basis of economic needs.

However innovative and enterprising the Wenzhou businessmen might be, they probably could not have succeeded so dramatically without the support of the local cadres.<sup>13</sup> The local officials on various occasions covertly rejected central directives that were detrimental to private business and tried to institutionalize rules of the game for the new-born market economy. There appeared to be good reasons for their support. To a considerable extent the economic interests of the local government coincided with those of the private enterprises. A growing economy would mean increases in the revenues of the local government. Reduction in unemployment would mitigate the pressure on the local government to deal with the problem. Economic prosperity would bring social stability and political clout to the local officials. In any case, the private businessmen and the local cadres became partners working together towards the common goal of fostering economic growth and reform.

#### THE SUNAN MODEL

When we turn to Sunan, we find a somewhat different pattern of development.<sup>14</sup> Unlike Wenzhou, Sunan is by no means isolated but located in an area with good connections to some large cities nearby and to the rest of China through a network of railroads, highways and waterways. Its agricultural resources are better than most other regions in China. Yet in the late 1970s, it faced the same problems as Wenzhou: low per capita income under the commune system and a large surplus farm labor. The same pressure from poverty and unemployment drove the peasants in Sunan to develop rural enterprises. And, in no time, Sunan became one of the highest income areas in China.

<sup>13</sup> See Yia-ling Liu, *op. cit.*; and Kristen Parris, "Local Initiative and National Reform: the Wenzhou Model of Development," *China Quarterly*, June 1993, pp. 242-263.

<sup>14</sup> For details, see Koo, 1994, *op. cit.*

Just as Wenzhou had its comparative advantage in the thousands of traders who turned into entrepreneurs, Sunan had a fairly strong initial industrial base with its commune and brigade industries. Although these industries had roots that dated back to the 1950s, they never really blossomed, partly because of their technological backwardness and partly because their products were oriented towards the local market that was quite limited at that time. In the 1970s, a unique opportunity occurred. There were an opening in the urban markets nearby and an inflow of technicians and urban youths from the cities in the aftermath of the Cultural Revolution. The history of Sunan's rural enterprises during the initial period is simply one of commune and brigade industries expanding rapidly by employing rural labor and imported technicians to produce for urban markets in Shanghai, Wuxi, Chengjiang and Xuzhou. More specifically, the rural enterprises in Sunan developed close relationships with the SOEs in the cities. The two cooperated in several ways. For example, the rural enterprises produced parts for the SOEs and became subcontractors, as shortages of land, labor and capital in the cities forced the SOEs to move some of their manufacturing activities to the rural areas, just as Hong Kong's businessmen moved their manufacturing facilities into China. Furthermore, the rural enterprises depended heavily on the SOEs for technology. In other cases, the rural enterprises supplied raw materials to the SOEs.<sup>15</sup>

As in Wenzhou, the local cadres contributed immensely to Sunan's growth through credit subsidies, supply of raw materials, and assistance in land acquisition and borrowing from outside sources. But unlike Wenzhou, the local officials were more closely connected to the TVPs because of the predominance of community ownership, and the relationship created several problems. First, they were more committed to an egalitarian policy in income distribution. It was in part because of this deliberate policy that the income gaps between farmers and workers diminished, a distinctive feature of the Sunan model. However, this policy may have some adverse effect on incentives. Second, the local government, being politically sensitive to the development of private enterprises, had an ambiguous policy towards these enterprises. They were hesitant to open channels for free entry and exit. They encouraged the existing private enterprises to merge with other rural enterprises, thus reducing competition. Third, the local governments often acceded to requests of unsuccessful TVPs for financial rescue, softening their budget constraint. Finally, to protect the TVPs in the region, the local governments often sub-optimized by restricting the free flow of capital, labor and goods into or out of the region.

Despite these shortcomings, Sunan was able to sustain rapid growth after the initial take-off because of two major developments. One was the expansion of domestic and export markets for their products, due to rising urban and rural incomes, a vastly improved distribution system, and the policy of opening to the outside world. Sunan's close connection with Shanghai, a major seaport with a long history of international trade, added to its advantage. The other factor was the development of a new crop of entrepreneurs.

<sup>15</sup> Ma Rong, et al., *op. cit.*, p. 755.

The original group of managers were mostly local cadres who were accustomed to administrative practices under a planned system. They were forced to learn management techniques and marketing skills essential to operate independently in a competitive environment, through training programs and learning by doing.<sup>16</sup> Younger and better educated management personnel also gradually replaced the older ones.

#### THE PEARL RIVER DELTA

In a separate study by one of the authors, six major factors contributing to the economic success in the Pearl River Delta have been identified: growth in agricultural output, expansion of foreign trade, the inflow of foreign capital, flexible and innovative development policy, proximity to Hong Kong and Macao, and overseas Chinese as a human resource.<sup>17</sup> One highly simplified way of tying these factors together is to view the development process in this area as essentially a case of offshore manufacturing brought about primarily by the substantial difference in wages and rent in this area and those in Hong Kong, Taiwan and Japan. Many investors, particularly those in Hong Kong, facing high rental and labor costs at home, transferred their manufacturing facilities to the Delta, where land and labor were relatively cheap and tax rates lower than in other countries. The foreign investors moved their factories to the Pearl River Delta for yet another purpose: to position themselves to enter China's domestic market. Most of the investors, especially those in nearby Hong Kong, have family ties with people in the Delta. They provided the financial and human capital to help build and run the rural enterprises, the output of which were destined for the world market. But again, all this could not have happened without a flexible and innovative development policy and the liberalization of export and exchange controls by the government.

To the local residents and governments in this region, the benefits had been many. A large volume of the surplus farm labor has been absorbed into the foreign-funded enterprises, since the industries moving in were mainly labor-intensive industries sensitive to wage differentials among regions. In addition, the development of service industries supporting manufacturing increased employment further. For the government, the rise of the largely export-oriented industries raised tax revenues and foreign exchange earnings. And, over the longer term, the inflow of capital, technology and management skills undoubtedly has positive spill-over effects.

The natural outcome of the cooperative effort between the foreign investors and the people in the region was rapid development of rural enterprises. One type of partnership was export processing (processing raw materials supplied by the foreign investor, manufacturing products according to the foreign investors' samples, or assembling parts provided by the foreign investor) and compensation trade. This type of arrangement was quite prevalent between the rural enterprises in Dongguan and the businessmen in Hong Kong, partly because of Hong Kong's proximity and partly because

<sup>16</sup> Ma Rong, et al., *op. cit.*, pp. 717, 747 and 890.

<sup>17</sup> Koo, 1995, *op. cit.*

many businessmen in Hong Kong were natives from this area.<sup>18</sup> Another type of cooperation was foreign direct investment in the form of joint ventures, cooperative enterprises and wholly owned foreign enterprises. The foreign-funded enterprises in the western part of the Delta (Nanhai, Shunde and Zhongshan) were mostly of this type, possibly because the traditional rural industries were more developed here than in the eastern part, and thus the industrial base made it easier to transplant foreign technology to these enterprises.

When placed in a broader perspective, the development process in this region is not really that different from Wenzhou or Sunan. Fei Xiaotong characterizes the present case as "a store at the front and a factory in the back," the front being Hong Kong and the back being the Pearl River Delta region.<sup>19</sup> The observation captures the essence of the development process common to all three cases. Hong Kong, the store at the front, is crucial to the development because the businessmen in Hong Kong provide the marketing channels for the products of the rural enterprises, just as the traders from Wenzhou provide the sales network for the local family factories, and the big cities like Shanghai provide the market for Sunan's products. Also, the rural enterprises in the Pearl River Delta benefit much from its proximity to Hong Kong in terms of technology transfer, information flows, and learning about urbanization, just as those in Sunan have from their connections with Shanghai.

To sum up, a comparison of the three cases suggests some common characteristics in their development. One striking feature is that they all went through a process of development and reform from below. Measures for economic growth and reform were basically initiated and carried out locally rather than by orders from the central authorities. For example, the initial capital for developing the rural enterprises came from sources outside the government. In Wenzhou, investments were financed by the savings of the local peasants, the wandering craftsmen and merchants. In Sunan, it was mainly the accumulated funds of the former commune and brigade enterprises that financed their own expansion. In the Pearl River Delta, foreign investors, particularly the overseas Chinese, provided the bulk of the initial capital. Similarly, institutional changes have been introduced on the initiatives of the local businessmen, often without prior government sanction. The opening of specialty markets and the introduction of flexible interest rates in Wenzhou are examples. The implication is that in the current transition, there may well be a workable alternative to development and reform from above which the government has doggedly emphasized thus far.

To portray what happened in these three clusters as development and reform from below raises the question: who at the micro level initiated the process? This brings us to the second similarity in the three cases. The initiatives came primarily from the entrepreneurs and secondarily from the peasants and the local cadres. The entre-

<sup>18</sup> Catherine C.H. Chiu, "The Reform Strategies of the Four Little Tigers of Guangdong: Dongguan, Nanhai, Shunde and Zhongshan," in J. Cheng and S. Macpherson, eds., *Development in Southern China*, Longman, Hong Kong, 1995, p. 28.

<sup>19</sup> Fei Xiaotong, *op. cit.*, p. 594.

preneurs were motivated to innovate because they could claim most, if not all the residual income or profit from their operations. The peasants, being underemployed on the farms, were eager to support a movement that provided them opportunities to increase their incomes. Moreover, unlike the SOEs, the rural enterprises generally paid their workers according to their contributions, without any bureaucratic restrictions. The local cadres patronized the entrepreneurs because the growth of rural enterprises directly or indirectly benefited the local government. In short, under the new incentive system, the three groups all had reasons to embark on a new course of development.

As noted earlier, the development paths of the three cases were markedly different. Nonetheless, one distinctive feature common to all stands out. Rural enterprises that sprang up profusely in all three clusters were predominantly industrial enterprises. In other words, the key to their economic success was rural industrialization. Only after the rural industries took root did other sectors such as transportation, finance and construction follow suit. Rural industrialization was by no means new in China. During the Great Leap and the 1970s, tremendous efforts had been made to industrialize the rural areas.<sup>20</sup> What is new in the present case is that rural industrialization was primarily market-driven rather than centrally planned. In Wenzhou, the very existence of the family factories depended heavily on the opening of nationwide markets by the traders. In Sunan, rural industries had their roots in the commune and brigade enterprises of the 1970s, but their growth did not accelerate until shortfalls in the urban markets nearby opened up opportunities for them to expand. In the Pearl River Delta, the rise of rural industries has been largely the result of offshore manufacturing organized by foreign investors. Like Wenzhou, the processing industries produced on orders from traders outside. Others produced mainly for the world market.

While the markets led to the rise of the rural industries, the expansion of rural industries in turn pushed the development of markets to new levels. As markets are interdependent, the expansion of commodity markets fostered the growth of markets for services, labor and capital. Such developments can be vividly seen in Wenzhou, but similar experiences are also found in the Pearl River Delta and Sunan.

Perhaps the most significant feature common to these cases is the outgrowth of a similar set of rules of the game for the emerging market economy, such as freely fluctuating commodity and factor prices, relatively free entry and exit from markets, and tacitly defined property rights. Of these, the property rights issue is of paramount importance. When we consider the ownership of the rural enterprises in the three cases, we find a heterogeneous pattern. In Wenzhou, private enterprises are predominant. In Sunan, the rural enterprises are mostly collectively owned. In the Pearl River Delta region, there are more foreign-funded enterprises than in most other areas. It would appear that ownership as such is immaterial in their growth. However, these differences should not obscure a

<sup>20</sup> *Rural Small-Scale Industry in the People's Republic of China*, University of California Press, Berkeley, 1977.

major point: the growth of rural enterprises in all three cases depended heavily on, and at the same time demanded, the demarcation and protection of private property rights in the rural economy, regardless of their ownership. For example, a common characteristic of the rural enterprises in the three clusters is that their management is largely autonomous and relatively independent of government interference in decision-making. This is feasible only if the right of the enterprise managers to utilize the property is recognized. The right to use property and to dispose of returns therefrom is evident in the leasing of land to the foreign investors in the Pearl River Delta. And, the movement of farm labor into the rural enterprises raises the issue of the right to transfer land-use rights to the peasants who stay behind. At this stage, these property rights are generally implicit and fuzzily defined, and their effective protection are still not assured. A case in point is the private financing of urbanization in Wenzhou. It raises the issue: does the private financing give the investors legitimate ownership claims to the land and/or the right to use it? But however imprecise the definitions may be, these preliminary steps towards institutionalizing the rules of the game have been indispensable to the growth of the rural enterprises by lowering transaction costs and thus enhancing the competitive edge of these enterprises.

In this connection, the contribution of the local cadres must be recognized. In an important sense, the local cadres are political entrepreneurs. By creating adaptable policies and institutions to take advantage of local conditions and special treatment by Beijing, they have opened the door to new areas where the business entrepreneurs can operate and prosper. One cannot deny that the central government too contributed to the growth of the TVPs by passively allowing them to grow, by sanctioning institutional changes after the fact, and in some cases, by actively providing fiscal stimulus packages, e.g., tax concessions to attract foreign investment in the Pearl River Delta. But it seems fair to say that the development of rural enterprises was never on the leadership's initial reform agenda. In fact, the TVPs' upsurge was a total surprise to the leaders.<sup>21</sup> It was not until after 1984 that the central government first recognized the rise of the TVPs as a major force in the reform movement. Even then, the TVPs remained second to the SOEs as far as policy focus or resource allocation was concerned. To the extent the government has played a direct, positive role, it was the local, rather than the central government.

#### PROBLEMS AND PROSPECTS FOR FUTURE GROWTH

Will the rural enterprises be able to sustain a relatively high rate of growth in the future? Recent trends in the development of the three clusters provide some clues. On the positive side, the very entrepreneurial dynamism that contributed to the initial growth apparently has maintained its momentum. The quality, design and mix of products have continued to develop as markets change. For example, in the rural enterprises in Yishan District, Wenzhou initially produced regenerated acrylic fiber clothing but has subse-

<sup>21</sup> This has been candidly admitted by Deng Xiaoping. *Deng Xiaoping wensun* (Selected Works of Deng Xiaoping), Vol. III, People's Publishing House, Beijing, 1993, p. 238.



quently shifted to manufacturing carpets, lace and printed yarn. Similarly, Qiaotaozhen has upgraded its industries from manufacturing buttons and plastic flowers to making zippers and apparel. A gradual movement from labor-intensive to technology-intensive products appears to be the general trend. To this end, the entrepreneurs have constantly sought new technology by developing links with research institutes, establishing centers of technology, services and information, and training technical personnel.<sup>22</sup> Furthermore, new markets are being developed.<sup>23</sup> In particular, rural enterprises in Wenzhou and Sunan have turned their efforts towards opening export markets.<sup>24</sup>

The entrepreneurs managing the rural enterprises have also continued to introduce innovations in their own organizational structures to adapt to market needs. One discernible trend is the merging of enterprises. Competition compelled these enterprises to raise productivity, and organization changes in the direction of horizontal or vertical integration to derive economics of scale, became necessary.<sup>25</sup> In Wenzhou, for example, private enterprises began to restructure, forming partnerships, joint ventures, and conglomerates. Of particular interest is a new economic entity called shareholding cooperatives. Under this arrangement, the individual household factories combine their resources to establish a single organization to share the risks and profits according to the shares each contributes. By the early 1990s, 70 percent of the rural enterprises were of this type.<sup>26</sup> The merging is by no means restricted to private households. Some mergers are formed by individuals, cooperatives and state-owned enterprises. Similar changes are also occurring in the Pearl River Delta. In summary, as new conditions emerge, the rural enterprises have evolved to meet the challenges, and the presumption is strong that these economic and institutional innovations will continue to be a powerful force behind their growth in the future.

Another positive element contributing to the future growth is the substantial increase in social infrastructural capital in the last 15 years. Rapid expansion of the rural enterprises has generated large increases in the revenues of the local government, which together with local private funds and foreign capital, have financed the construction of roads, airports, telecommunication facilities, power stations, schools, and hospitals.<sup>27</sup> The accumulation of both human and physical capital has greatly strengthened the foundation for future growth.

The road ahead, however, is not without potential obstacles. One potential difficulty stems from the uncertainties concerning the leadership's policies towards the rural enterprises. In the 15 some years since the Third Plenum of the Eleventh Central Committee in 1978, the Party had come a long way moving towards a market economy, but some Party leaders are still obsessed with certain So-

<sup>22</sup> Zhou and Zhang, *op. cit.*, pp. 199, 40-41, 85-86; Fei Shuping, Shen Liren, Chen Naixing, eds., *Sunan gongyehua daolu yanjiu* (Studies on the Road to Sunan's Industrialization), Jingji guanli Publishing House, Beijing, 1993, pp. 201-207.

<sup>23</sup> For example, see Ma Rong, et al., *op. cit.*, p. 1367.

<sup>24</sup> Cheng Dajiong, *Wenzhou kaikai* (Reform in Wenzhou), Fudan University Press, Shanghai, 1991, pp. 306-307; Fei Shuping, *op. cit.*, pp. 276-282.

<sup>25</sup> Fei Xiaotong, *op. cit.*, pp. 285-287.

<sup>26</sup> Zhou and Zhang, *op. cit.*, pp. 111-116.

<sup>27</sup> Fei Shuping, *op. cit.*, pp. 241-248; Zhou and Zhang, *op. cit.*, pp. 88-89, 102-103.

cialist doctrines. As noted above, the rural enterprises are almost totally private or collectively owned. And in recent years, the share of the non-state sector in the economy increased sharply while that of the state sector declined. Some leaders fear that, as the dominant role of public ownership erodes, the Socialist nature of the economic system will be lost, and so will the state control of the economy. A related issue is whether the rise of the private sector is compatible with the ideological requirements of a Socialist market economy. Such practices as labor hiring, large returns to risk-taking, transfer of property rights are now common among the rural enterprises. Are they not features of capitalism? Although strong arguments have been offered why they should be of no serious concern, some leaders remain skeptical.<sup>28</sup> The basic problem is that the conservatives oppose changes in the economic system for ideological, not economic reasons. Their resistance to economic reforms is evidenced by their veiled attack on reform and the open-door policy in the form of campaigns against spiritual pollution, bourgeois liberalization, and peaceful evolution. Since they view the rural enterprises as vanguards of capitalism, they have repeatedly clamped down on them on ideological or other pretexts.<sup>29</sup> Not surprisingly, investments by the private businessmen are rather sensitive to the political climate.<sup>30</sup> Many have been deterred from long-term investments for fear of policy changes.<sup>31</sup> Looking ahead, one cannot tell whether, and in what direction political winds will blow. If and when the Party leadership should turn conservative again, the rural enterprises may run into difficulties. Legislation to clearly define property rights and other rules of the game could provide some protection. But China already has numerous economic laws on the books, such as contract laws, laws for private enterprises and intellectual property rights, etc. What is lacking is not so much economic laws but the political will to enforce them.

The difficulties resulting from some leaders' political biases are further compounded by general economic discrimination against the rural enterprises by the state. For example, the financial institutions are under the tight control of the state and they generally favor the state-owned sector over the non-state sector in extending loans. The rural enterprises are also low on the state's priority in the supply of raw materials and energy or provision of social services. Furthermore, the tax rules are also biased against the rural enterprises.<sup>32</sup> These practices not only impede the development of the rural enterprises but also run counter to one of the basic precepts of a market system: fair competition.

Apart from external pressures, the rural enterprises themselves face problems of transition and growth. One such problem is the poor quality of the products of some producers. There are many reasons for the low quality, such as inferior raw materials, poor

<sup>28</sup> See, for example, Dong Fureng, "The Wenzhou Model for Developing the Rural Commodity Economy," in Peter Nolan and Dong Fureng, *Market Forces in China*, Zed Books, London, 1990, pp. 87-88; Zhang Gensheng, Yu Mingtao, Du Ruiyan, and Yu Guoyao, "The Wenzhou Model and Several Policy Questions," *Nonmin ribao*, (Farmers Daily), October 11, 1986, pp. 1-2; Wu Xian, "The Development of Rural Commodity Economy in Wenzhou," *Renmin ribao*, (People's Daily), August 4, 1986, p. 5.

<sup>29</sup> Development Research Center, *op. cit.*, pp. 1058-1060; Ma Rong, *op. cit.*, p. 1363.

<sup>30</sup> *Liaowan* (Outlook), No. 4, January 25, 1988, pp. 7-9.

<sup>31</sup> Dong Fureng, *op. cit.*, p. 89.

<sup>32</sup> Development Research Center, *op. cit.*, pp. 1072-1073; Ma Ron, *op. cit.*, p. 1363.

equipment, lack of testing, and intentional fraud.<sup>33</sup> These are, however, largely short-term problems that could be readily resolved by a fully competitive market and laws and regulations.<sup>34</sup> A more serious problem is the shortage of capital and technical personnel. Initially the rural enterprises had been able to finance development with their own savings. As their operations rapidly expanded, they relied increasingly on financial institutions for short- and long-term credit.<sup>35</sup> Yet, the banks and credit cooperatives often failed to accommodate their financial needs, driving the rural enterprises to seek high-cost private financing.<sup>36</sup> Similarly, as the trend towards product innovation continues, the demand for technological upgrading intensifies. In the past, the rural enterprises have been able to draw from the SOEs and foreign sources for technical assistance. But the costs of technology transfer have been rising. In addition, the proliferation of rural enterprises has occurred with virtually no pollution control. Thousands of factories engaged in leather tanning, paper-making, and electroplating have been polluting the environment.<sup>37</sup> To the extent the burden of cleanup falls on the rural enterprises, it will add to the rising costs these enterprises will have to bear.

#### THE EFFECTS ON ECONOMIC TRANSITION

What are the effects of the growth of rural enterprises on China's economic transition? Two aspects of this issue are of particular interest: the specific effects on the SOEs, and the effects on economic transition in general.

#### RURAL ENTERPRISES AND THE SOES

A general presumption among some Party leaders is that the rural enterprises have been hurting the SOEs by competing with the SOEs for raw materials, energy, capital and markets. Since the SOEs are the backbone of the economy, to hurt them is to undermine the growth and reform of the economy. The rural enterprises therefore should be suppressed.<sup>38</sup> What have been overlooked here are the positive effects on the SOEs. To be sure, the rural enterprises do compete with the SOEs for resources, and in one particular area, technical manpower, the SOEs are clearly the losers. Because the pay scales for comparable jobs are lower in the state than in the non-state sector, because information on the job markets is readily available, and because restrictions on labor mobility have now been relaxed, there has been an outflow of skilled workers and technicians from cities to rural areas, and from the state to the

<sup>33</sup> Dong Fureng, *op. cit.*, p. 89.

<sup>34</sup> For example, silver is needed in the manufacture of low-voltage electric wares in Liuxi, Wenzhou. But it is expensive and many factories use low-cost substitutes. This results in uneven quality of the products. Subsequently, with the introduction of testing equipment and quality standards, the problem is under control. Zhang Gensheng, *op. cit.*, p. 2.

<sup>35</sup> Ma Rong, *op. cit.*, p. 1378.

<sup>36</sup> Even the private banks are sometimes forced by the government to lend to the SOEs instead of the rural enterprises. In 1988, more than 70 percent of their loans went to private business, but it dropped to 40 percent in 1989. *Asian Wall Street Journal*, February 13, 1990, p. 8; *Wen Hui Pao*, Hong Kong, February 3, 1989, p. 5.

<sup>37</sup> See, for example the water pollution problem in Wenzhou reported in *Wen Hui Pao*, Hong Kong, January 5, 1988, p. 5. According to one report, the rural industries in 1989 contributed 15 percent of the polluted air, 7 percent of waste water, and 10 percent of solid wastes in China. Development Research Center, *op. cit.*, p. 1067.

<sup>38</sup> *People's Daily*, February 5, 1989.

non-state sector.<sup>39</sup> Except when these technicians are surplus labor in the SOEs, losing them weakens the technical base of these enterprises. Some workers in the SOEs do not leave their units but hold second jobs in the rural enterprises. Their lack of total commitment to the SOEs lowers the morale of the work force, undermining the productivity and competitiveness of the SOEs.

But the competition between the SOEs and the TVPs is not without positive effects. The dynamism of the TVPs has exerted considerable pressure on the SOEs to improve efficiency. To meet the challenge, some SOEs have merged horizontally to develop economies of scale. Furthermore, the expansion of TVPs makes it easier for the SOEs to lay off surplus workers, which has been one of the obstacles to SOE reform.

It is also important to note that the relationships between the SOEs and the TVPs are not always competitive. The rural enterprises and the SOEs often produce different products, or buy their supplies from different sources. For example, in Wenzhou many rural enterprises manufacture small daily-use products which the consumers need but which the SOEs choose to ignore. Others make use of waste materials discarded by the SOEs. Even when they produce the same products, the market may be so large relative to the productive capacity of the SOEs that it could accommodate output from both sectors. For example, coal produced by the rural enterprises in Shanxi helped to mitigate coal shortages.

Actually, cooperation between the rural enterprises and the SOEs is quite common. Some rural enterprises produce parts for the SOEs, supply semi-finished materials, or provide packaging and handling services.<sup>40</sup> At the same time, the SOEs have been the most important supplier of technology and equipment to the rural enterprises. In the area of distribution, the SOEs are important market channels for the rural enterprises. For example, the buttons produced by Qiaotaozhen are being sold in state-owned department stores all over China. In short, there are forward and backward linkages in the economic relationships of the two sectors, so that one does not necessarily grow at the expense of the other. In some cases where strong complementarity of economic interests exists, the two form joint ventures. The merger of some rural enterprises with SOEs in Sunan, Wenzhou, Shaanxi and Gansu illustrates the case.<sup>41</sup>

The positive effects of the rise of rural enterprises on the reform of the SOEs are no less significant than its impact on the growth of the SOEs. One such effect is that, as active participants in the emerging competitive economy, they set the examples and force the SOEs to change their objectives and behavior pattern to conform to the rules of a market economy. Among the three cases under study,

<sup>39</sup> Apart from the wage differentials, some other factors also contributed to the outflow. The living conditions in the urban areas in central and western China are inferior to those in the coastal rural areas. In the 1950s and 1960s many technical people were sent to the interior. By now they have reached retirement age and many would like to return to the coastal areas with their children. The demand for technical expertise by the rural enterprises in coastal areas offer opportunities to relocate. This explains why many technicians and engineers hired by rural enterprises in Shandong and Jiangsu were originally from SOEs in central and western China. Ma Rong, *op. cit.*, p. 1374. Then, there are some surplus technicians in the SOEs who would like to seek more challenging positions in rural enterprises.

<sup>40</sup> Liu Qun, "The Development Trend of Private Economy As viewed from Wenzhou," *Liaowang* (Outlook), No. 4, January 25, 1988, p. 13; Fei Xiaotong, *op. cit.*, pp. 52-55.

<sup>41</sup> Zhou and Zhang, *op. cit.*, pp. 117, 294; *People's Daily*, August 24, 1992, p. 1.

Sunan's rural enterprises resemble the SOEs most closely, where the relations between the state and the enterprises are concerned. The rural enterprises, offshoots of the former commune and brigade industries, naturally retain features of government involvement in enterprise management. However, in order to survive in a competitive economy, they soon become more autonomous in operation. The change is inevitable because, unlike the central government, the local governments do not have the resources to support rural enterprises with sustained financial losses. And so, the rural enterprises have to assume responsibility for profit and loss and with it they are given more latitude in independent management, even though they are still collectively owned and under the control of the local government. In so doing, the local governments implicitly separate ownership rights from the right to use the property, an essential step in freeing the SOEs from government interference with their management.

As the organizational structure of Sunan's rural enterprises changes, so does the quality of the management personnel. Originally, the commune cadres managed the enterprises, but, by and large, they were not entrepreneurs. In the struggle for survival in a semi-market economy, they have been transformed or replaced by more capable managers.<sup>42</sup> One distinct qualification of the entrepreneurs is that they accept and operate under the rules of a market economy. Similarly, in Wenzhou and the Pearl River Delta, the private and foreign-funded enterprises have long thrived in competitive markets. As the SOEs are being gradually pushed towards the markets, they are compelled to observe the same rules. To compete, they have to accept and adjust to market signals, and to set prices competitively.

At this point the transition is far from complete. But there are already encouraging signs that competition has brought positive responses from the SOEs. Some SOEs have availed themselves of their financial resources and technical capability to introduce advanced technology from abroad and manufacture new products which the rural enterprises cannot yet produce.<sup>43</sup> Others expedite reforms in their personnel and distribution systems.<sup>44</sup>

Indirectly the growth of the TVPs also contributed to the reform of the SOEs by improving the conditions under which the transition takes place. One major obstacle to enterprise reform is the burden of financing social services such as education, health care and social security which these enterprises inherited from the past. Relieving the burden would make it possible for the SOEs to focus on increasing productivity and to compete with the rural enterprises on an equal footing. One way to remove the burden is for the government to finance it through the state budget. Since the rural enterprises contribute substantially to the revenues of the local and central governments, their rapid growth enhances the governments' fiscal capability to take over the responsibility. Another obstacle to enterprise reform is the sizable surplus labor in the state sector which the SOEs cannot discharge for lack of a safe-

<sup>42</sup> Zhou and Zhang, *op. cit.*, p. 296.

<sup>43</sup> *China Daily*, November 9, 1987, p. 11.

<sup>44</sup> Ren Zhengte and Tian Xuexian, "Trend, Growing Pains, and Challenges," *Liaowang* (Outlook), No. 4, January 25, 1988, p. 9.

ty net for the unemployed. The rural enterprises draw primarily from the rural areas for labor. To the extent they absorb some of the surplus in the SOEs, the transfer of the surplus to rural enterprises mitigates the pressure on the SOEs. In any event, the absorption of rural labor has been rather large and that helps to reduce somewhat the pressure of unemployment in the cities.

#### IMPACT ON ECONOMIC TRANSITION

Apart from its impact on enterprise reform, the growth of rural enterprises has profound effects on the reform movement in general. We have noted that, in their continuous struggle to survive and grow, they have introduced organizational innovations that eventually force the government to institutionalize some of the rules of the game for a market economy. Foremost among these changes is the preliminary demarcation of property rights. Although privatization remains a political taboo, the fact that different ownership including private and foreign ownership has been allowed to coexist with SOEs implies a tacit recognition of private ownership, at least for the time being. Likewise, the separation of the right to manage the property from ownership rights is manifested in the collectively owned rural enterprises in Sunan now being run by capable managers, even though they are theoretically owned by all the local residents and controlled by the local cadres. Issues of sub-contracting and sale of rights to use farm land surface when specialized households attempt to consolidate land holdings to expand the scale of production. The government again is forced to make tentative rulings on property rights. The higher degree of mobility of labor and capital among alternative uses and across regions suggests that rights to dispose of one's property are also recognized, even though such rights are sometimes restricted.<sup>45</sup> In any case, a tentative set of rules regarding property rights has been established.

The preliminary demarcation of property rights, however fuzzy, lays the foundation for the development of markets where goods, services and factors of production are being exchanged on a large scale. The actual breakthrough first occurred in Wenzhou, but the development soon spread to other regions and other types of markets. We have pointed to the growth of rural enterprises and the emergence of financial markets in Wenzhou as a classic example of the need for coordinated reform. Formerly, the state banks and the credit cooperatives monopolized the financial market. The monopoly broke down as private lending and direct mobilization of savings of peasants and workers became more prevalent. In Wenzhou, for instance, the state banks and credit cooperatives financed only 34 percent of the total loans in 1986 and loans by private financial institutions accounted for 36 percent, the rest being accumulated savings of the enterprises.<sup>46</sup> To meet the need for long-term capital, a credit market for such needs is in the making.

The importance of the development of markets can hardly be overstated. The markets grew out of the vacuum created by the

<sup>45</sup> For example, a share-holding cooperative must allocate its profit after tax by a fixed formula: 50 percent for investment, 25 percent for dividends, 15 percent for public funds, and 10 percent for workers' welfare and bonuses. *China Daily*, August 22, 1992, p. 4.

<sup>46</sup> *Jiefang ribao* (Liberation Daily), August 4, 1986, p. 3.

backward distribution system under state planning. For example, transactions between the clothing manufacturers looking for thousands of buttons of all kinds and the large number of button factories would have been extremely difficult because of imperfect communications under the old system. In effect, the markets offer an alternative distribution and financial system that lowers transaction costs. More significant, the markets in Wenzhou and other areas are, by and large, fairly competitive markets. They provide the signals for the rural enterprises to structure their output and for the households to decide on the use of their resources. The emergence of competitive markets inevitably brings along price reform. The introduction of floating interest rates is a case in point.

To what extent are the experiences of the three cases transferable to other areas? The issue is important because of the diversity in the natural endowment, resource base and economic legacy of the different regions. Several obstacles are obvious. Some rural areas do not have big cities nearby like Sunan. Others lack the favorable condition to attract foreign investment like in the Pearl River Delta. Still others have no army of traders to form a marketing network like Wenzhou. Nonetheless, these obstacles are not insurmountable. Indeed, the unique features of each of these localities serve as examples of how they identify the comparative advantages of each locality and effectively utilize them to produce what the market calls for. Thus far, the demonstration effect has been felt in several areas. Some localities are developing family enterprises and specialty markets, including Yuhuan, Wenling, Qingtian, Yongkan, Yiwu and Dongyang in Zhejiang, and Ningde in Fujian.<sup>47</sup> Elsewhere, the Wenzhou entrepreneurs are spreading directly their brand of development, e.g., in Xinzhang county in Henan, where they put up capital and manpower in cooperation with the local government to build a "Wenzhou City."<sup>48</sup>

In passing, perhaps one should also note the effects of the TVPs on economic growth. For example, wherever TVPs are highly developed, the local residents' standard of living and their savings rise rapidly. The profits of the TVPs have been used to support agricultural production. Surplus labor from less developed areas are absorbed by the TVPs as local supply dwindles. The quality of the entrepreneurs and workers improves as a result of learning by doing. All these effects tend to strengthen people's faith in reform, which, in turn, makes the reform more durable.

To recapitulate, the rise of the rural enterprises has initiated a process by which the rural economy is steadily being transformed from a socialist system into a mixed economy that is still largely publicly owned but privately managed under formal (e.g., joint ventures in the Pearl River Delta) or informal (e.g., collectives in Sunan) contracts. The experience may yet offer an alternative to wholesale privatization of SOEs as some economists propose, or to preserving the status quo of the SOEs as some conservative Party leaders prefer. However, the development of the rural enterprises has also created some obstacles to reform. During the three regions' march toward commercialization, industrialization and urbaniza-

<sup>47</sup> Zhou and Zhang, *op. cit.*, pp. 126-127.

<sup>48</sup> *Jingji cankao bao* (Economic References Daily), September 30, 1993, p. 2. See also *China Daily*, March 25, 1992, p. 4.

tion, the local cadres contributed immensely to their success by thwarting central directives harmful to the rural enterprises, establishing rules of the game for the market economy, and supporting local infrastructural investment. As noted above, the local cadres are motivated by their own economic interests to collude with the businessmen. They tend to optimize the local benefits sometimes at the expense of national interests. For example, some local cadres deliberately grant tax relief or preferential rates to the rural enterprises on various pretext in order to reduce their taxes.<sup>49</sup> In addition, since tax collection is handled by the local tax authorities, local governments could and often did influence the local tax bureaus to be less vigorous in collecting taxes.<sup>50</sup> Such practices have lowered the revenues of the central government. When the central government began introducing separate taxes for the local and central governments in 1992 to replace the decentralized fiscal responsibility system, the reform has met considerable resistance from the local governments. Because institutional building requires substantial resources from the central government (e.g., setting up a social security system), the adverse effect on resource mobilization indirectly hurts the reform movement.

Another serious problem that accompanied the rise of the rural enterprises is the spread of corruption among the local cadres. The rapid growth of the TVPs has created a dichotomy between the cadres who have power but low income, and the businessmen who have wealth but are dependent on the cadres for smooth operation of their business. According to one report, the average income of a cadre in 1987 was only one-eighth of the median income of the Wenzhou residents.<sup>51</sup> Yet, they hold enormous discretionary power over economic, judicial and personnel matters. For example, a government official can decide whether a business is legal or not, impose arbitrary levies, allocate raw materials at subsidized prices and approve low-interest loans. Not surprisingly, it has become a common practice for the private businessmen to bribe those with licensing power, allotment authority, or decision-making influence. As a result, many cadres have become rich by illegal means. Such practices not only increase transaction costs but also tend to obstruct reforms because the cadres are motivated to perpetuate such irregular measures as the dual-track price system that have been important sources of their income.

The fundamental cause for the misuse of power by the local cadres is the lack of a legal system. Unfortunate for China, there is no legal tradition in the form of precedents in codified law, or rules of conduct for market participants and government officials. The establishment of economic courts in the Pearl River Delta is a good beginning but much remains to be done. Just as local needs of the rural enterprises demand that private property rights be delineated, the growing pains of reform call for the government to expedite the construction of a legal framework and the political will of

<sup>49</sup> Ma Rong, *op. cit.*, p. 1379.

<sup>50</sup> World Bank, *China: Macroeconomic Stability in A Decentralized Economy*, World Bank, Washington, D.C., 1995, pp. 28.

<sup>51</sup> Zheng Heping, Li Xueqin, Tang Kaijian and Zhang Jinsheng, "It Is Imperative to Strengthen Party and Government Building in Developing Commodity Economy—Inspiration from a Survey in Wenzhou," *Qiushi* (Seeking Truth), No. 3, February 1, 1989, pp. 17–21, translated in JPRS-CAR-89-042, May 10, 1989, p. 17.



the Party leaders to enforce the laws. In short, reforms from below at some point require complementary, coordinated reforms from above.

### CONCLUDING REMARKS

Reform of the SOEs in China, historically unprecedented, has raised many important social, economic and political issues. With neither a bench-mark nor a well formulated underlying theoretical framework, it must proceed cautiously. We propose a two-pronged strategy. First is the direct and frontal assault by exploring various methods of privatizing property rights through transforming SOEs into joint stock companies and then transfer them into non-state hands. Second is an indirect approach by nurturing TVPs to pressure the SOEs to reform, and by institutionalizing the ground rules for all participants in the market economy including the SOEs.

This proposition is based on the experience of three selected regions which shows that the growth of the TVPs is an integral part of the SOEs' reform. Specifically, the two are interrelated in four aspects. First, the TVPs compete with the SOEs on several fronts: in quality and price of their products, in bidding for technical manpower and capital, and in management and marketing skills. Inasmuch as competition is the essence of a market economy, the sooner the SOEs face the challenge, the greater the benefits from learning by doing. Assuming that China will continue to pursue its open-door policy, the need to get the SOEs ready for foreign competition is all the more imperative.

The outcomes of competition can be anticipated. Some SOEs will compete successfully. They will meet the challenge head on, upgrade their products or develop new markets. Others will run into difficulties, but they will take the losses in strides, restructure, and eventually overcome the difficulties. Still others will fail. Sorting out the winners and losers and the underlying causes of their successes and failures should be useful for designing appropriate measures to restructure the different groups of SOEs.

Second, the relationships between the SOEs and the TVPs are not necessarily competitive. There are many areas where the two sectors are complementary through backward and forward linkages in production and distribution. From a long-term perspective, the complementarity is particularly significant. In the pre-1978 years, China adopted the development strategy of siphoning resources from agriculture to support industrial development. The one-way approach proved a dismal failure. Now, with the rural enterprises, agriculture and urban industry becoming increasingly interdependent and mutually supporting, a three-sector multilateral exchange system is emerging. The new development path has a good chance of sustaining growth in the future.

Third, reform of the SOEs will inevitably incur financial costs to the government because of the need to simultaneously carry out social reforms. Establishing an unemployment insurance system is an example. The growth of TVPs contributes directly to the tax revenues of the state budget. It also generates growth in other sectors too, thus broadening the tax base.

Finally, and perhaps most significant, in its continuous struggle to survive and grow, the rural enterprises have persistently pushed

forward the frontiers of reform. They have challenged the central authorities to delineate and enforce property rights. They have introduced institutional innovations such as flexible interest rates, share-holding enterprises, and specialty markets. They have also trained a large number of entrepreneurs to operate in the current quasi-market economy. In short, the growth of the rural enterprises has laid the groundwork for a viable market system to which the SOEs must eventually adapt.

For these reasons, the concern that the rise of rural enterprises will inundate the SOEs seems unwarranted. On the contrary, the growth of rural enterprises is likely to help rather than impede the restructuring of the SOEs. Of course, this is not to say that reforming the SOEs itself is unimportant. What is proposed here is a coordinated approach: reform from below accompanied simultaneously by reform from above.

# VILLAGE ELECTIONS IN CHINA: EXPERIMENTING WITH DEMOCRACY

By Amy B. Epstein \*

## CONTENTS

	Page
Summary .....	403
Introduction .....	404
A History of Village Elections .....	405
Electoral Reform and Ideal Village Election Procedures .....	407
The Reasons Behind Democratic Elections in Chinese Villages .....	411
The Change in the Villager-Cadre Relationship .....	412
Bridging the Economic Gap .....	414
Stability .....	415
The Remoteness of China's Villages .....	416
The Mass Line .....	417
Other Election Questions .....	418
The Relationship between Economic Development and Village Democracy .....	418
The Role of the Communist Party .....	419
Conclusion: Foundations for the Future .....	419
Bibliography .....	421

## SUMMARY

In response to agricultural and economic reforms started in the late 1970s, which saw the dissolution of village communes and the deterioration of local leadership, villagers in the Chinese countryside initiated a grassroots effort to elect local leaders directly. In 1987, the National People's Congress (NPC) passed a law establishing the structure and functions of village committees: directly elected bodies comprised of three to seven members that oversee village administrative and economic affairs. Under the supervision of the Ministry of Civil Affairs since 1987, village elections have become increasingly democratic. Guidelines and training on open nomination procedures, multi-candidate election, secret ballot voting, transparent vote tabulation, and immediate transfer of power are the hallmarks of the Ministry's campaign to introduce sound democratic procedures in the Chinese countryside.

Recognizing that there would be resistance to implementing direct elections in villages at the local level, where entrenched town-

\*International Republican Institute. The research for this paper was conducted during trips to China in November 1995 and May 1996 and was sponsored by the International Republican Institute (IRI). IRI staff accompanied Ministry of Civil Affairs officials to Gansu and Shanxi province to observe local elections and election official training seminars. Interviews were conducted with scholars and Ministry officials in the field and in Beijing in November 1995 and May 1996, and during a Ministry visit to the United States in February 1996. The author is grateful to Anne F. Thurston and colleagues at IRI for their many helpful comments on this paper.

ship and village cadres would not welcome challenges to their power, and at the central level, where decentralization of power to villagers would be seen as a threat to central and Party leadership, proponents of village elections set about defining the practical reasons that justified the need for and importance of democratic elections. Reformers contend that democratic elections: (1) help to rectify deteriorating villager-cadre relations, facilitating the implementation of tax collection and other central policies; (2) increase economic prosperity at the village level by allowing for the election of skilled entrepreneurs; (3) prevent civil unrest in the Chinese countryside by making cadres accountable to villagers; (4) relieve provincial and central officials from the micro-management of village government and village economy; and (5) appeal to the origins of Chinese socialism, fulfilling the tenet that government should heed the will of the masses.

These reasons place village elections in a political context that serves some of China's current economic and social goals, namely facilitating the implementation of central policies, improving the local economy, and maintaining stability. In addition to being seen as serving these practical ends, democratic elections are having an ideological impact on Chinese villages as well. Village elections can be seen as a democratic experiment, a training program for 900 million Chinese villagers on democracy, transparent governance, and political accountability. Democratic elections in China's 1,008,002 villages may prove to be a solid foundation upon which other democratic institutions and procedures may be built.

#### INTRODUCTION

Since China initiated economic reforms in 1978, many scholars have studied and speculated about the prospects for commensurate political reforms, in an effort to determine if China's marketization would result in democratization. Today, though there are competing views about the degree to which China has opened up, many people looking at China have found that market liberalization has led to reform in other areas such as increased support for the rule of law, development of commercial, civil, and criminal legal infrastructure, and incremental decentralization of law-making procedures to the National People's Congress and to some provincial and municipal people's congresses. Indeed, the average Chinese citizen has more choices and freedoms than he had fifteen years ago. While these reforms all reflect a trajectory toward democratization based on decentralization of authority, rule of law, and protection of individual rights, the reality in China often reminds us that law enforcement can be arbitrary and sporadic, that laws and institutions fall prey to the rule of men, and that policy dictates from Beijing can result in the rollback of reform overnight.

What then is the prospect for democracy in China? This article does not presume to answer such a complicated question, which perhaps will be answered one day in retrospect. This article begins to explain a particular democratic development that is occurring at the grassroots level, namely the direct election of village committees, which shows potential as a foundation for democracy in China. The origins of this development lie in the fundamental changes brought about in the countryside by the economic and ag-

gricultural reforms that started almost twenty years ago. In 1987, democracy was introduced in Chinese villages when provinces and counties officially began holding direct elections for local village leaders.

In the almost ten years since they began, promoters of village elections have sought consistently to make them more transparent and more competitive. The Ministry of Civil Affairs, which has assumed supervision of this grassroots development, has established procedures for insuring open nomination of candidates, ballot secrecy, and transparent vote tabulation. This article will discuss the origins of Chinese village elections and current election procedures in detail. More important, perhaps, this article will attempt to explain why the Chinese government, a regime characterized by central, authoritarian rule and a lack of accountability, is allowing a clear form of democracy to take root in almost one million Chinese villages. A complete discussion of village elections in China must answer what village elections are, if they are democratic and why elections are held at all.

#### A HISTORY OF VILLAGE ELECTIONS<sup>1</sup>

Elections in rural China have been held sporadically in modern times. In the past, scant attention was paid to technical issues involved in the electoral process, and many elections were marred by blatant vote-buying and other irregularities. Elections were held up to the late 1940s in certain areas controlled by the Communist army. At that time, the method adopted was the "bean voting method," in which the candidates stood with a bowl behind their back, facing away from the citizens, and the voters filed by, dropping a bean or a stone in the bowl of their preferred candidate. Even these most elementary forms of voting disappeared after 1949. However, the memory may have survived in certain regions, and has provided an important historical precedent for the development of village elections.

Village committee elections share their immediate origins with the events that precipitated the collapse of collectivized agriculture. In the late 1970s, peasants in Fengyang County, Anhui Province, fearing that severe drought would become devastating famine if managed by the agricultural collective, decided to disband their peasant communes and establish a household responsibility system for production. The success of family plot production in Anhui prompted central leaders to begin the gradual decollectivization of agriculture nationwide. In addition to being agricultural production centers, production brigades and communes had functioned as village administrative organs, responsible for local government and economic activity; the dissolution of the commune system resulted in debilitated governance at the local level. In some villages, the collapse of the commune created a political and institutional vacuum, while in other villages, corrupt "local emperors" assumed control of village affairs.

<sup>1</sup>In 1994, IRI issued an Election Observation Report for Fujian, China, detailing recommendations for improvement. Background information collected for that report has provided much of the information for this section.

Shortly after the dissolution of their commune, villagers in Yishan County, Guangxi Province, began to organize committees to oversee village administration, address infrastructure and development needs, maintain public order, and manage public utilities. With the endorsement of provincial and senior leaders, this process spread and in 1982, the Chinese Constitution officially recognized village committees as one legitimate form of political organization at the grassroots level.

Having established village committees as a local government unit, debate soon ensued regarding their formation. Three different methods were proposed in early attempts to systematize the political structure in China's villages. The first option was to reestablish Chinese Communist Party (CCP) control over the committee, and to use the Party bureaucracy to appoint village officials. The second option was to authorize county and town government leaders to appoint officials from the top down in order to extend the government bureaucracy into the grassroots. The third approach was to implement local, contested elections at the village level. Those advocating local village elections pointed to the success of certain villages in Hubei and other provinces that chose their committees by voting.

Since there was no consensus on the best method to form village committees, Party and government appointments as well as elections were experimented with in different regions of China. As with much of the Chinese reform process, trial and error became the hallmark of efforts to find a suitable mechanism for selecting the village committee. On November 24, 1987, the National People's Congress (NPC) promulgated the Organic Law of Villagers' Committees of the People's Republic of China (Experimental)—hereinafter referred to as "the Villagers' Committee Law," which established the role and responsibilities of the village committee.

Facing the monumental task of supervising elections in a little over one million villages, and encountering substantial opposition from local cadres who saw their vested interests threatened by the proposed reforms, the Ministry adopted a strategy of developing demonstration villages and townships. There are currently 59 model counties and villages throughout China, where officials can study the impact of village elections on governance. Interestingly, the method of developing pilot programs for election reform parallels the methods used in the 1980s to promote economic reform.

Grassroots elections for village committees in the 1980s dovetailed with a campaign to encourage village autonomy, beginning the marriage of bottom-up reform to top-down administration.<sup>2</sup> In 1982, Article 111 of the Constitution of the People's Republic of China (PRC) first recognized village committees as a legitimate form of government, declaring that the "villagers' committees established among urban and rural residents on the basis of their place of residence are mass organizations of self-management at the grassroots level. The chairman, vice-chairman, and members of

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<sup>2</sup>The development of village elections in the context of the four stages of the village autonomy campaign was explained by officials from the Ministry of Civil Affairs in interviews held in May 1996.

each residents' or villagers' committee are elected by the residents."<sup>3</sup>

This proclamation in the State Constitution was the first of four stages that has led to the entrenchment of village elections in the local political structure. In 1987, the "Three Selves" campaign, which promoted self-management, self-education and self-service at the local government level, and the promulgation of the Villagers' Committee Law marked the second and third stages in the campaign to increase village autonomy. The fourth stage came in 1990 with the promotion of the "Four Democracies" campaign, which calls for: (1) democratic election; (2) democratic management; (3) democratic supervision; and (4) democratic policy-making at the village level. The Four Democracies campaign was introduced as a more concrete means of realizing the autonomy that was ostensibly the goal of the first three stages.<sup>4</sup> By linking democratic elections to village autonomy—an unpublished Ministry of Civil Affairs' report claims that democratic election "is the major part of the autonomy campaign,"—the road was paved for the Ministry to begin aggressive implementation of electoral reform at the village level.

#### ELECTORAL REFORM AND IDEAL VILLAGE ELECTION PROCEDURES

The process of introducing, or, in the case of a few provinces, reforming electoral procedure in one million Chinese villages is a daunting task. Since 1987, the Ministry's Department of Basic-Level Governance has been responsible for developing democratic election procedures and teaching them to provincial, county and township level officials throughout China. China has no real tradition of democracy; this, coupled with poor infrastructure and haphazard development further impede efforts to implement village elections. One million people would have to be trained for each village to have one person qualified to run elections; this figure does not include training personnel to supervise village election officials. The most optimistic supporters of village elections estimate that the Ministry will be able to train 12,000 officials, or one percent of the officials needed, by the year 2000, and they will represent only provincial, prefectural<sup>5</sup> and county election administrators.<sup>6</sup> The entrenchment of democracy at the village level in China is dependent upon developing effective procedures and training election administrators to put the procedures into practice.

In their effort to develop comprehensive guidelines for village elections in China, Ministry officials have studied grassroots election practices thoroughly and have conducted preliminary investigations of international election procedures. With the support of international aid agencies, like the International Republican Institute, The Asia Foundation and the Ford Foundation among others, the Ministry conducts training seminars on village election proce-

<sup>3</sup> *Constitution of the People's Republic of China* (Beijing: Foreign Language Press, 1990), p. 66.

<sup>4</sup> Kevin J. O'Brien, "Implementing Political Reforms in Chinese Villages," *The Australian Journal of Chinese Affairs*, July 1994: p. 37.

<sup>5</sup> A prefecture is an unit of rural government. China has 333 prefectures.

<sup>6</sup> From a speech by Ministry of Civil Affairs Vice Minister Yan Mingfu, May 1995.

ture.<sup>7</sup> Approximately 200 county and township officials attend each training program, a small fraction of the number of officials who need training. In 1996, nineteen provinces are scheduled to hold elections, but scarce funding limits the Ministry to plan training seminars for only four provinces. The training seminars are generally conducted several months prior to a province's elections, giving the training seminar participants an opportunity to return to their townships to train local village election officials. The first day of the three-day training program focuses on explaining why democratic village elections are important in China; the second day focuses on the procedures for a democratic election; and the third day is spent holding a mock election, from the nomination of candidates to the awarding of office-holding certificates. The training program has been successful in familiarizing county and township officials with democracy and democratic procedures.<sup>8</sup> These training programs are the first steps toward standardizing election procedures in China.<sup>9</sup>

Three to seven people comprise a village committee and each is elected for a three year term. Elections in China are not held simultaneously; they are staggered over three years, so that ideally one third of China's provinces are holding elections in any given year.<sup>10</sup> Each province chooses when to hold its elections, which generally take place over a three month time period. The Ministry election guidelines uphold many of the fundamental principles of democratic elections: namely, open nomination of candidates, multi-candidate elections,<sup>11</sup> secret-ballot voting, transparent vote tabulation, immediate announcement of election results and transfer of power, and electoral victory by more than 50 percent of the vote.

Though there is variation from province to province, in general, village committees oversee all administrative matters, including tax collection, budget management, public utility management, dispute resolution, public safety matters, social security, public health matters, and local business management. This latter responsibility is perhaps a village committee's most important responsibility and many candidates are elected because they are proven entrepreneurs.

In addition to village committees, village representative assemblies play a role in local affairs. A representative assembly is comprised of several dozen people, generally "village elders," representing household groups. The assembly meets several times a year to debate major decisions confronting the village, such as building a

<sup>7</sup>For a variety of reasons, development of village elections in China remains a low funding priority and thus the Ministry has sought assistance from international aid agencies since the early 1990s for training and research programs.

<sup>8</sup>The success of the election training programs has prompted the Ministry to begin exploring ways of training local officials on the other "democracies;" management, supervision, and policy making. Governance training programs may be started in the next few years as a complement to democratic elections.

<sup>9</sup>The Ministry of Civil Affairs authored *Zhonghua Renmin Gongheguo Cunmin Weiyuanhui Xuanju Guicheng* [Regulations for the Election of Villagers' Committee, People's Republic of China], (Beijing: China Society Press, 1996), a textbook that details procedures for county, township, and village election officials and is the focus of the second day of the training program.

<sup>10</sup>Because many provinces are eager to develop village elections, in 1996, nineteen provinces will hold elections, more than half of the total number of provinces.

<sup>11</sup>Though elections should be multi-candidate, they are not multi-party. However, candidates for village committees do not have to be members of the Communist Party and are often non-Party members. The role of the Communist Party in village elections will be touched on later in this paper.



new road or refurbishing the local school. The assembly oversees the village committee, sometimes issuing policy guidance. As yet, the assembly system is not as democratic as the committee system: assembly members can be appointed or designated and often assembly votes are by show of hands, rather than secret ballot.<sup>12</sup>

During the first rounds of elections in 1988–89, circumstances prevailed that inhibited electoral quality. In many villages local cadres were reluctant to implement elections, fearing loss of power. In addition, peasants lacked confidence in the elections, suspicious that the outcomes were predetermined. Ministry efforts to train officials and to develop sound election guidelines have resulted in improved electoral quality in the second, third, and fourth election rounds.

The guidelines for election described below are the ideal procedures. Though they are clearly articulated by the Ministry, they are often misinterpreted or simply ignored by township and village officials. The procedures are, for the most part, followed exactly by the model counties; outside of the model counties however, the quality of village elections is uneven. At an election in Gansu Province, villagers ignored instructions to vote in secret, preferring to gather around a voting table as many as ten at a time to discuss their favorite candidates. In Shanxi Province, election officials brought out a band to play while the votes were being counted, distracting villagers from monitoring the vote tabulation process. Other foreign observers have reported seeing officials stuff the ballot box or Communist Party members trying to control the nomination proceedings.<sup>13</sup> At best, village elections in China suffer from ignorance of democratic procedures and over-enthusiasm on the part of the villagers; at worst, they suffer from corruption and manipulation.

The ideal procedures outlined by the Ministry contain all of the necessary electoral elements that, in theory, secure a competitive, transparent election. Candidates can be nominated in one of four ways: (1) nomination by ten or more villagers; (2) self-nomination; (3) nomination by the Party or a Party organization, such as the village party branch of the Youth League; or (4) nomination by the current village committee or village representative assembly.

The Ministry strongly recommends the use of the *haixuan* or "sea election primary," which allows for open nomination of candidates that is followed by a village-wide vote: the three nominees who receive the most number of votes then become the formal candidates for village committee chairman. A second and final round of elections are held then to determine the successful candidate for village chairman. The sea election primary method, which was developed by Lishu County, Jilin Province, is said to be beneficial in securing the most qualified candidates for election. The Ministry advocates that elections for each position be multi-candidate<sup>14</sup> and that a space be reserved on all ballots for write-in candidates.

<sup>12</sup> For a profile study of one village representative assembly, see Susan V. Lawrence, "Democracy, Chinese Style," *The Australian Journal of Chinese Affairs*, (July 1994): pp. 61–68.

<sup>13</sup> Ian Johnson, "Local Elections Seen as Way to Change System," *The Baltimore Sun*, April 25, 1995: p. 9.

<sup>14</sup> In the case of village committee chairman, there are two candidates who compete for the position. In the case of village committee members, the election is multi-candidate, but two can-

Campaigning in China is limited, as villagers do not feel comfortable speaking and debating in a formal setting before their neighbors. Each candidate presents his or her views immediately preceding the election in five or ten minute speeches that generally focus on how the candidate will improve the village economy and the quality of village life.

Prior to election day, voter lists are posted and eligible voters receive voter cards which are stamped when voters receive their ballots. Voter and candidate eligibility requirements are the same; Article 9 of the Villagers' Committee Law states that "any villager who has reached the age of 18 shall have the right to elect and stand for election, regardless of his ethnic status, race, sex, occupation, family background, religious beliefs, education, property status and length of residence, with the exception of persons who have been deprived of political rights in accordance with the law."<sup>15</sup>

On election day, villagers assemble and receive instructions on how to fill out their ballots. Ballots must be cast in secret. Ministry officials explain the importance of secret-ballot voting and specify that voting must be done not only by "wuzhimintoupiao" (unsigned ballots), but also by "mimi huapiao" (voting in a secluded place). As an illustration of the importance placed on secret ballots, at one recent election, Ministry officials did not feel that the three-sided ballot booths which had been constructed were secret enough, and required that the local election commission drape a sheet over the top of the voting booth to ensure ballot secrecy.

Immediately following balloting, votes are tabulated before the assembled village. Ballots are sorted and read aloud while a marker keeps track of the votes on a blackboard. Close attention is paid to the number of eligible voters, the number of ballots distributed, and the number of ballots cast. The winner of the election is called up before the villagers where he delivers an acceptance speech and receives a certificate confirming the immediate transfer of power. The handing over of the certificate is significant because it prevents any problems or delays in the transfer of power that could occur if the township or county authorities had to review and approve the election.

The procedures outlined above reflect the ideal guidelines outlined by the Ministry. Certainly not every village is holding its elections in accordance with these guidelines. Estimates place the number of villages that have held elections that follow some or all of the democratic guidelines outlined above at perhaps one quarter to one third.<sup>16</sup> However, since 1987, every province has held at least two rounds of elections at the village level while some provinces have held as many as four. Though many village elections remain *pro forma*, the development of sound, consistent electoral procedures will help entrench democracy at the village level.

didates do not necessarily compete for each seat. For example, there will be seven candidates for five committee member positions.

<sup>15</sup> *Laws of the People's Republic of China (1987-1989)*, Volume III, (Beijing: Science Press, 1990): pp. 64-65.

<sup>16</sup> Interview with Ministry of Civil Affairs official, February 1996.

## THE REASONS BEHIND DEMOCRATIC ELECTIONS IN CHINESE VILLAGES

During the second half of the 1980s, when economic and administrative reform and liberalization were proceeding at a relatively rapid pace, village democracy was conceived. The Tiananmen Square crackdown in 1989 sent the reform movement reeling backwards. In the aftermath of Tiananmen, village democracy was closely scrutinized, but ultimately allowed to continue.<sup>17</sup> Village self-governance survived the pressures of 1989 and has flourished in the 1990s, despite vacillations and setbacks in the reform movement. Yet why are village elections allowed to take place in the Chinese countryside? Why is the government experimenting with autonomy and democracy at the village level? What are the prevailing circumstances in Chinese villages that have made direct elections and some degree of financial and political accountability that accompany elections desirable or perhaps imperative? And, what does this election development indicate about possible future trends for democracy in China?

Officials and scholars in China, in public and private conversations, set forth several compelling explanations for why a system of direct elections has been allowed to take hold at the village level:

- (1) The return to the household responsibility system of plot production resulted in a fundamental change in the relationship between villagers and local cadres. Whereas farmers once received food and income from local cadres who were in charge of the village collective, now cadres go directly to farmers to collect taxes and grain. Villagers have started to show an interest in exercising control over village spending. At the same time, local cadres have lost a good deal of authority and are met with considerable resistance when trying to collect taxes or implement unpopular central policies.
- (2) Economic reform has resulted in vast income disparities between the coastal, urban areas and the inland, rural areas. Village elections are touted as a key source of rural economic development. Villagers often elect competent, young entrepreneurs who promise to develop village cooperatives and enterprises and increase prosperity in the village.
- (3) Incidents of civil disturbance and unrest in the countryside have alarmed many senior officials in China and have made maintaining stability a top priority. Corruption and disregard for villagers' concerns have plagued local government in excess and have touched off riots and violence throughout the countryside. Proponents of village self-governance contend that democracy and direct election help to eliminate corruption and incompetence at the village level by making local officials directly accountable to villagers and village representative assemblies. An elected leader is more inclined to be receptive to villagers' concerns or else risk losing "face" among his friends and neighbors—not to mention his position during the next election.

<sup>17</sup>Zhenyao Wang, "Village Committees: The Foundation of the Chinese Democratization," unpublished, p. 4.

- (4) National and provincial officials, many of whom would prefer to focus their efforts on economic development rather than on improving village governance, do not feel threatened by political reform in remote Chinese villages. Since 1978, the Chinese government and the Communist Party have focused most of their attention on building China's socialist market economy. The promotion of agrarian life and rural development, which was historically the preeminent concern of the government and the Party, has been considerably retarded in favor of the development of the industrial sector. Many senior leaders are grateful that the implementation of village elections allows them to focus their attention on more pressing urban, industrial concerns.
- (5) Finally, village elections and self-governance appeal to Chairman Mao Zedong's theory of the Mass Line, which contends that politics and governance should focus consistently on the needs and interests of the people. Proponents of village elections, who must find a way to reconcile democracy with Chinese socialism, point to the Mass Line and suggest that village self-governance is perhaps the most direct way of realizing the original intentions of the socialist revolution in China.

These reasons are both official and unofficial. Some of them, particularly direct democratic elections' capacity for improving economic development, maintaining stability, and fulfilling the Party's obligation to the masses, are expounded upon at Ministry of Civil Affairs training seminars for local election officials. Other reasons, such as the need to rectify peasant-cadre relations and the non-threatening nature of village elections in China, are unofficial reasons why democracy is being pursued at the village level. These were proffered in private conversations to supplement the aforementioned reasons.

#### THE CHANGE IN THE VILLAGER-CADRE RELATIONSHIP

The household responsibility system returned plot cultivation to families, making each family responsible for cultivating an assigned portion of land and allowing families to retain their net profits. Under the collective agriculture system, taxes were collected directly from the commune and farmers knew little or nothing of how much money was paid in taxes annually. At the same time, the collective disbursed funds directly for village projects, such as building roads and schools, and farmers were not advised of the costs of such projects. Only after taxes were paid and projects funded did farmers receive their share of village and collective profits.

The return to the household responsibility system requires that taxes both for the operation of village committees and in many cases for capital improvement projects be collected directly from the villagers through a system of ad hoc taxes and levies. In fact, all village committee operating funds come directly from villagers; the township government<sup>18</sup> determines the level of funding each vil-

<sup>18</sup>The hierarchy of government organization in rural areas in China goes as follows: state, provincial, prefecture, county, township, village. Thus, the township government presides directly over the village level and monitors village affairs quite closely. Each township oversees

lage committee is to receive and then the villagers must raise those funds. According to official regulations, villagers' so-called "contributions" are limited to a maximum of 5 percent of their previous year's income.<sup>19</sup> However, other projects require additional taxation; when the village undertakes large development projects, such as building an irrigation system, villagers are requested (or required) to contribute funds directly to the cost of the project.<sup>20</sup>

Needless to say, the combination of villagers regaining control over their income and profits, and the village committee's direct dependence on villagers for operating funds, has made villagers more concerned about how local funds are spent. At a national conference on village autonomy in November 1995, Minister of Civil Affairs, Doje Cering, pointed out in a speech supporting the development of village elections that, "Villagers are more and more involved in every aspect of rural work . . . and all major issues are now discussed and decided upon by villagers."<sup>21</sup> Villagers are reluctant to turn over their funds to incompetent or corrupt cadres. During village committee elections, candidates outline their plans for projects that they would develop; a winning candidate in Gansu Province promised to cultivate a new species of apple in a village cooperative apple orchard, while a newly-elected village committee chairman in Shanxi Province spoke of building a porcelain factory in his village. Villagers who are anxious to exert control over how their taxes are allocated find that competitive elections not only require candidates to put forward an agenda, but also make village officials accountable to villagers, either through the village representative assembly or ultimately through the next election. The return to the household responsibility system has resulted in a fundamental change in the economic relationship between the villagers and the local village government; where once, village officials and cadres were in control of spending and allocation of funds, now villagers themselves have a very direct role in how money is spent. Proponents of village democracy contend that villagers' desires to exercise control over this process can be met more adequately by a process of direct election of the village committee.

If changes in China's rural economy have left villagers with increased control over local spending, they have rendered village cadres increasingly impotent in their attempts to implement central policies. As the task of implementing unpopular family planning and grain procurement policies became more and more difficult in the 1980s, democratic elections came to be viewed as a way of diffusing tensions between villagers and cadres. As Kevin O'Brien points out, senior officials "agreed to grant limited democratic rights to villagers, in the hope that they would be more willing to

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approximately ten villages. For a more detailed discussion of China's organizational hierarchy see Kenneth J. Lieberthal, *Governing China* (New York: W.W. Norton & Company, 1995).

<sup>19</sup> When interviewed, provincial officials were very careful to point out that the money collected for village administration and village projects was not taxes, but voluntary contributions. They also pointed out that the state does contribute money to villages that are determined to be below the national poverty line.

<sup>20</sup> Taxes imposed by village committees contribute to a much greater problem of over-taxation of Chinese peasants. Ministry of Civil Affairs officials hope that direct elections and good governance will help ease the tensions created by over-taxation.

<sup>21</sup> "Civil Affairs Minister Affirms Village Autonomy," XINHUA, in Foreign Broadcast Information Service China Daily Report [hereinafter FBIS-CHI]-95-223 (November 20, 1995): p. 28.

accept decisions made by elected cadres.”<sup>22</sup> Democratic elections, at least according to the official government line, have succeeded in this respect. XINHUA News Agency quoted a Xinye County official, “[i]t has become easier for me to handle village affairs which are arranged in perfect order. This is incredible compared with a decade ago.”<sup>23</sup>

Economic and agricultural reforms in the countryside precipitated a change in villager-cadre relations that saw villagers seeking a greater voice in control over local spending and cadres weakened in their abilities to carry out local policies. Direct election of village committee officials is promoted as a means of recalibrating the villager-cadre relationship, balancing villagers' interests in overseeing local spending and checking corruption with increased accountability, and convincing villagers to accept implementation of unpopular central policies because they are carried out by elected, and not appointed, leaders.<sup>24</sup>

#### BRIDGING THE ECONOMIC GAP

Since the mid-1980s, much attention has been focused on the widening economic gap between China's wealthy, coastal areas, which have attracted considerable investment, and poorer, inland areas, where investment and development are limited. There are many concerns about the implications of this income and development gap for China's economy, polity and society.

In the brief eight years since their implementation, village democracy, according to its supporters, is demonstrating its capacity to encourage economic growth in rural areas. In Lishu County, Jilin Province, one of China's 59 model counties for elections, village committees are credited with almost doubling per capita income from 800 renminbi in 1992 to 1,459 renminbi in 1994 by increasing pig farming capacities in the villages. Before the elections in 1992, families were raising three to five pigs each. Village committees in Lishu County, acting in concert with village representative assemblies, increased the number of pigs raised per family to 30 by the end of the three-year village committee term.<sup>25</sup>

Lishu County developed the *haixuan* open primary, which sometimes elicits as many as 100 candidates for village committee chairman, and is often touted by the Ministry of Civil Affairs as one of the top five counties pursuing progressive village election reform. Ministry officials explain that the *haixuan* primary, used for the first time in the 1992 election, permitted the nomination and election of qualified candidates, who were skilled in developing pig farming techniques.

It is difficult to quantify the impact of democratically elected village committees on economic development at the village level. Certainly, any economic advancements at the local level are the result of a variety of favorable conditions existing simultaneously and not solely the result of a secret-ballot booth or a transparent vote-tab-

<sup>22</sup> O'Brien, p. 36.

<sup>23</sup> "Government Moves to Expand Rural 'Democracy'," XINHUA, in FBIS-CHI-95-188, (September 28, 1995): p. 23.

<sup>24</sup> For a more thorough discussion of how tensions resulting from economic reform prompted reform in China's countryside, see Tyrene White, "Reforming the Countryside," *Current History*, September 1992: pp.273-277.

<sup>25</sup> These figures were given by the Ministry of Civil Affairs during an interview in May 1996.

ulation procedure. Local and provincial officials, eager to promote democratic, contested elections, credit village committees with improving Lishu County's economy, regardless of the actual conditions that resulted in increased pig farming capacities.

Villagers share officials' confidence in the direct causality between democracy and economic prosperity and believe that contested elections have the potential for improving their local economies. In many elections, villagers have elected skilled entrepreneurs, many the owners of successful local enterprises, to run the village, in the hopes that proven businessmen can make local village enterprises profitable and perhaps attract investment into the village.

In general, village elections in China can be seen in reference to the local economy; successful village committee candidates are often those who promise to raise the per capita income level in the village. In part then, democratic elections are being held in Chinese villages because of the perception that they can increase local prosperity and decrease the economic disparity between coastal and inland areas.

#### STABILITY

One of the most oft-cited and best argued reasons for implementing direct elections at the village level is their ability to preempt peasant unrest by making local cadres accountable to villagers for their decisions and actions and by checking cadre corruption. Stability in the countryside is one of the government's and the Party's preeminent concerns:

In an article stressing the importance of peasants' ideological education, the party committee of Hebei province's Botou city observed that Deng Xiaoping once pointed out that "China's stability depends on the stability of its rural areas where 80 percent of its total population dwells, and that the stability of its rural areas depends concurrently on economic development and the peasants' state of mind." The party committee, in its article entitled, "An Issue That Must Not Be Neglected" published in the 16 October 1995 edition of the Central Committee journal QIUSHI said it had discovered a lack of ideological and moral development supplementing rural economic growth and an absence of the mutual support of spiritual and material values necessary for sustaining rural economic development and stability.<sup>26</sup>

The article goes on to explain that widespread corruption, declining moral values, and lack of public order are cited as the cause of rural unrest. The article also describes a campaign to rectify rural morale, which stresses among other areas, democracy and rule of law.<sup>27</sup> Another scholar puts it more frankly; "rampant corruption by rural officials and outbreaks of violence between party cadres and peasants . . . this darker side of rural life has become an obsession with China's conservative leaders, who as heirs to Mao

<sup>26</sup> "Peasant Problems Concern Chinese Authorities," in FBIS-CHI-96-034, (February 20, 1996): p. 16.

<sup>27</sup> *Ibid.*, p. 17.

Zedong's rural revolution see their fate as intimately entwined with political stability in the countryside."<sup>28</sup> It is difficult to assess how many peasant uprisings have occurred in China in recent years; a recent article in the *Journal of Democracy* alleges that in 1993, 6,230 peasant uprisings took place, 800 of which involved 500 people or more.<sup>29</sup>

Officials fear that peasant revolts will jeopardize China's economic success and national stability. The Ministry of Civil Affairs contends that democratic election of village committees preempts peasant revolts. During the earlier debates on village elections, many argued that elections would lead to chaos in the countryside, however examples cited by the Ministry have proved the opposite. In Sichuan Province, a riot broke out in Renshou County when local officials tried to impose a road tax. Renshou residents approached neighboring Pengshan County, asking Pengshan to join them in their riot. Pengshan village committees put the road tax collection to a vote by calling together the local village representative assemblies. Pengshan residents, who voted to support the road tax, refused to join the rioters, saying that they could not riot against a tax for which they had voted. Rioting was avoided in Pengshan County and supporters of village elections had proof that, at least in one county, democracy could ensure stability, not chaos, at the local level.

As in the case of the relationship between direct elections and economic development, perception is more significant than reality; in other words, national and local officials perceive that village elections are a means of maintaining stability in China. History indicates that direct elections and legitimate, accountable governance tend to deter civil unrest, but it is impossible to prove at this time whether or not this is the case in rural China. Writing about village elections' contribution to improving governance in China, one scholar observed that, "[d]emocracy improves governance. . . . Officials in China are made accountable in the same way as are American officials at town meetings in New England."<sup>30</sup> National and provincial officials, faced with the task of maintaining stability in a country historically characterized by regional unrest and peasant uprisings, believe that the direct election of village committees has the potential to preempt unrest by providing more effective and responsive local units of government. These officials would rather implement democracy in Chinese villages than face hundreds of peasants revolting over increased taxes or unfair grain procurement policies.

#### THE REMOTENESS OF CHINA'S VILLAGES

Chinese villages are small, remote units of government, where populations average between 500 and 2000 people. The size of Chinese villages lends itself to the development of village elections in two ways. First, many national and provincial officials do not want to concern themselves with the management of village affairs or

<sup>28</sup> White, p. 273.

<sup>29</sup> Minxin Pei, "Creeping Democratization in China," *Journal of Democracy*, Volume 6, Number 4, October 1995: p.74.

<sup>30</sup> Yasheng Huang, "Why China Will Not Collapse," *Foreign Policy*, Number 99, Summer 1995: p. 60.



small village enterprises, preferring to focus their attention and development efforts on the industrial sector. In a recent newspaper article, one Ministry of Civil Affairs official was paraphrased extolling the benefits of village democracy, "this has helped to maintain public order, has narrowed the gap between government officials and ordinary people, and what is more important, freed the government from trifling matters to pay attention to economic development."<sup>31</sup>

Second, political reform in remote, small villages is not threatening to officials in a province capitol or in Beijing in the way that political reform in Chinese cities might be. Indeed, many election promoters and scholars, when questioned as to why officials allow direct elections in the villages, responded frankly, saying that senior officials did not feel threatened by such democratic reforms at the village level and appreciated that programs are being implemented to improve the quality of village life so that they can concern themselves with other issues.

#### THE MASS LINE

One of Mao Zedong's tenets girding the development of Marxist-Leninist thought in China is the concept of the Mass Line. In its most simplistic sense, the Mass Line refers to Chairman Mao's theory that a leader "must act in accordance with the needs and wishes of the masses."<sup>32</sup> In seeking to find the appropriate Chinese context that convinces government and Party cadres (particularly hard liners) of the importance of direct village elections, proponents argue that village democracy is the best way to fulfill Chairman Mao's call to heed the "mass line." In training sessions for county and township level election officials, trainers explain that democracy and direct elections allow "the villagers to control the village." Democratic elections at the village level are in some aspects in accordance with the promises outlined during the earliest days of Chinese socialism; thus, the "mass line" as an explanation for why democracy has taken root in the Chinese countryside must not be overlooked.

Some or all of these five reasons—the fundamental change in the nature of villager-cadre relations, the need to generate economic development in the countryside, the preeminent desire for stability in China, the non-threatening nature of democracy being carried out in remote Chinese villages, and village elections' appeal to the origins of Chinese socialism—have satisfied the concerns of officials and cadres, whose consent, either tacit or overt, is required to implement democratic elections at the village level in China. Both hard liners like Peng Zhen, whose support of village elections in the 1980s was critical to the passage of the 1987 Villager's Committee law,<sup>33</sup> and reformers such as Yan Mingfu, who has been integral in the development of a national election training center in

<sup>31</sup> "Government Moves to Expand Rural 'Democracy,'" XINHUA, in FBIS-CHI-95-188, (September 28, 1995): p. 23.

<sup>32</sup> From "The United Front in Cultural Work," (October 30, 1944) in *Quotations from Chairman Mao Tse-Tung*, (Peking: Foreign Language Press, 1966): p. 124.

<sup>33</sup> For more information on the central politics surrounding the development of village elections in China see Kevin J. O'Brien, "Implementing Political Reform in China's Villages," *The Australian Journal of Chinese Affairs*, p.36 ff.

Beijing,<sup>34</sup> have advocated democracy in Chinese villages based on the reasons outlined above. Even many county and township officials, whose positions and powers are most directly threatened by direct election at the village level, seem to accept the necessity of democratic elections when Ministry officials explain their importance for maintaining stability and promoting economic development. Nine years into the implementation of village elections, these reasons have secured a place for democratic elections in the political structure at the village level, whether or not the assumptions are accurate. The perceived reality, in the case of village level elections, is that democracy is useful, and perhaps even necessary, to balance the relationship between villagers and government officials, to stimulate economic growth, to compel local officials to be accountable, to maintain stability, to release provincial and national officials from the micro management of village affairs, and to fulfill one aspect of China's socialist revolution.

### OTHER ELECTION QUESTIONS

#### THE RELATIONSHIP BETWEEN ECONOMIC DEVELOPMENT AND VILLAGE DEMOCRACY

Compared to provinces that are at a medium level of development, China's poorest and richest provinces have proceeded with the development of village elections at the slowest pace and generally with the most resistance.<sup>35</sup> This event, at first glance, contravenes conventional wisdom, until one remembers that the development of local elections is dependent on support from local and provincial officials. In poor provinces, one might expect that frustration and lack of resources would lend itself to demands for improvements. However, if officials are not interested in or do not see the value of village elections, their development progresses slowly with little attention to improving transparency or competitiveness. Villagers' own concerns focus on securing adequate food and shelter, not on methods of improving local governance. An exception to this is Gansu Province, one of China's poorest provinces, where provincial and local officials spearheaded efforts to increase the democratic nature of village elections, hoping that village elections could work the same economic magic in Gansu that they worked in Lishu County.

Conversely, in wealthier provinces, where one could argue that prosperity would lend itself to increased demands for popular control and autonomy, powerful local bosses have inhibited the development of competitive elections. A village committee chairman's economic success generally secures his reelection, giving rise to the development of boss politics. In recent years, local bosses have been cropping up in wealthy Chinese villages. Their successful efforts to build local factories, increase prosperity, and implement social programs, such as kindergartens and housing development, guarantee their continued reelection. Praise for an incumbent in Shanxi province focused on investment projects developed under his adminis-

<sup>34</sup> The election training center, funded by the United Nations Development Programme, is expected to open in 1997.

<sup>35</sup> In 1994, IRI was told by Ministry officials that Jiangxi, Guangdong, Guangxi and Yunnan provinces have demonstrated the greatest resistance to instituting electoral reform.

tration; 550,000 Renminbi (US\$66,265) in a primary school, 240,000 Renminbi (US\$28,915) in an irrigation project, 120,000 Renminbi (US\$14,457) in infrastructure, 30,000 Renminbi (US\$3,614) in telephone lines, and 50,000 Renminbi (US\$6,024) for a village amphitheater. Needless to say, the incumbent received 88 percent of the vote in his bid for reelection.

Ministry of Civil Affairs officials reports that provinces that are at a middle level of economic development with relatively strong agricultural *and* industrial sectors, like Liaoning and Jilin, have developed their elections most aggressively and with the most success. It may be that factors that restrict electoral development in China's poorest and wealthiest provinces lend themselves to improved electoral quality in middle level provinces. Moderate prosperity may allow for competition among several qualified candidates as opposed to dominance by one. At the same time, villagers who enjoy sufficient food and adequate housing can turn their attention to improving local government. After nine years of village elections, officials and observers are now starting to study the relationship between a province's level of economic development and that province's amenability to democratic village elections.

#### THE ROLE OF THE COMMUNIST PARTY

Though the Ministry estimates that 30–50 percent of all elected village committee officials are not Party members,<sup>36</sup> in the majority of Chinese villages, the Party still retains preeminent control. Village elections could come under attack if they are perceived as a threat to local Party dominance. To improve its credibility in the village, the Party recruits newly elected village committee members. At the same time, there are many reports that local Party leaders are resigning their positions in the village party branch in order to run for a village committee position, indicating that at least in some villages, the village committee enjoys more power, influence and respect among villagers than the Party.

#### CONCLUSION: FOUNDATIONS FOR THE FUTURE

The genesis of village elections came from the grassroots; when village communes were disbanded, peasants, faced with a political crisis, elected committees to oversee village affairs. However, the implementation of elections throughout China's one million villages is not the result of a mass grassroots demand for control or political accountability. The development, democratization, and implementation of village elections are all the result of debates at the most senior levels of the Chinese government on how best to organize government at the village level in the wake of agricultural reform. The seeds of democracy are being planted in Chinese villages not by dissidents or even by the masses, but by reformers in the Chinese government.

What does this imply for the future of democracy in China? Democracy is advocated in Chinese villages because it remedies a series of complicated situations that strict top-down control had exacerbated to a near breaking point. It is viable because it is perceived

<sup>36</sup>Zhenyao Wang, "Village Committees: The Foundation of the Chinese Democratization," p. 10.

as promoting economic development and balancing the interests of the Chinese people and officials, and not as an external force threatening to destabilize China and overthrow the government. Democracy is also viable, in Chinese villages at least, because it has sought to develop within the context of the realities in a Chinese village.

It is important to evaluate village elections not only as a democratic development that is taking place amidst current political reforms in China, but also as a democratic experiment that is being tested out for its possible future value to reform in China. Some senior officials suggest that local elections are a means of introducing villagers to democracy and familiarizing them with the process, implying that they are the strategic foundation on which further democratic reforms will be built. Doje Cering, the Minister of Civil Affairs, stated "implementing the village autonomy system is like running democracy training class for 800 million farmers, and installing the democracy concept in every one's [sic] mind."<sup>37</sup> In Ministry-run training programs, officials expound on the need for the slow, systematic implementation of democratic elections, saying that China should avoid what has happened in Russia, where change has come too quickly. Officials, wary of the political and economic chaos unfolding daily in Russia, point out that Russia had no democratic foundation when its communist structure collapsed virtually overnight. They argue that implementing village elections in China can bring democracy without chaos. Within the scope of political reform in China, village democracy is significant, but it is inarguably in its infancy and its role as the foundation for future democratic reform will become certain only after it has matured.

Deng Xiaoping reportedly stated that China will have direct, democratic elections for national positions by the year 2050. In the more immediate future, scholars and officials tentatively hint that village elections will evolve vertically to the direct election of township officials perhaps in the next ten years. Government officials, in their campaigns to promote and develop democracy at the village level, recognize that "democracy is a gradual accumulative process"<sup>38</sup> in addition to being "both a system and a concept as well as a habit."<sup>39</sup> It requires "step-by-step progress."<sup>40</sup> Democracy is being cultivated in Chinese villages for practical economic and social reasons. Though some criticize village elections for lacking a well-defined ideological component, the elections suggest that when democratic ideology serves reality, then it is allowed to take root, and even, encouraged to grow. If democracy in China is evolutionary, not revolutionary, then perhaps it will evolve by supporting itself on the foundations laid in Chinese villages, where real democratic habits are being formed during elections for village committees.

<sup>37</sup> "Civil Affairs Minister Affirms Village Autonomy," in FBIS-CHI-95-223, (November 20, 1995): p. 29.

<sup>38</sup> Zhenyao Wang, "Village Committees: The Foundation of the Chinese Democratization," p.12.

<sup>39</sup> Ibid.

<sup>40</sup> "NPC Official: Democracy 'Step-By-Step' Process," ZHONGGUO XINWEN SHE, in FBIS-CHI-95-098, (May 22, 1995): p. 27.

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### III. EXTERNAL ECONOMIC RELATIONS

#### GREATER CHINA: ECONOMIC DYNAMISM OF THE OVERSEAS CHINESE

By James R. Lilley and Sophia C. Hart\*

#### CONTENTS

	Page
Summary .....	423
The Emergence of Greater China .....	424
Global Tribes and Economic Integration .....	424
The Role of Overseas Chinese .....	425
Chinese Reunification? .....	426
Sources of Regional Trade and Investment .....	428
Investment Tycoons of the "Bamboo Network" .....	428
Regional Trade and Investment Patterns .....	431
Divisions Within Greater China .....	438
The Challenge to Central Authority .....	439
Affluence vs. Influence .....	441
Regional Rivalries .....	442
Beijing's "Four Obsessions" .....	443
US Interests in Greater China .....	444
Asian Modernization and the Emergence of the "New Rich" .....	444
\$3 Billion Brinkmanship .....	445
Prosperity and Security Issues .....	446
Chinese Economic Reform .....	447
Greater China and the US .....	447

#### APPENDICES

Appendix A: Distribution of 500 Largest Companies Controlled by Overseas Chinese in Asia .....	448
Appendix B: Ethnic Chinese Billionaires in Asia .....	448
Appendix C: Public Opinion on the Future Development of Cross-Strait Relations .....	450

#### SUMMARY

Economic integration in the post-Cold War era has produced dynamic economic growth, especially in the Pacific Rim. The emergence of Greater China, an informal economic region that constitutes the fastest-growing economy in the world, is one reflection of this new trend in development strategy. This economic phenome-

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non owes its vitality to the investment, marketing and management skills of "diaspora" or overseas Chinese, as well as the vast resources of the major regional Chinese economies of Hong Kong, Taiwan and the People's Republic of China.

Greater China includes individuals from the Chinese mainland, Taiwan, Hong Kong, Singapore and the overseas Chinese in Southeast Asia and throughout the world for a total estimated population of 1.2 billion in China plus 55 million overseas. Their ability to pool resources—manpower, capital and technology—across political borders has been facilitated by their common language, heritage and culture. In 1995, the combined economic power of this group was roughly \$2.5 trillion.

It is conceivable that someday the combined gross domestic product of Greater China will surpass that of the EU and the US, and that the area eventually will displace Japan as the dominant regional power. It is vital, therefore, that US policymakers understand exactly what role the region plays and will continue to play in the global economy, and adopt appropriate policy measures to insure the protection of US regional interests.

## THE EMERGENCE OF GREATER CHINA

### GLOBAL TRIBES AND ECONOMIC INTEGRATION

In the post-Cold War era, fading ideology and the rise of an international economy have led to the emergence of "global tribes" or supra-national cultural groups, most notably in North America, in Europe and in the Pacific Rim. The geographical separation of individual members has not inhibited either the development of worldwide business and cultural networks or the maintenance of a strong sense of common origin and values. In the West, in fact, this trend has led to the creation of comprehensive free trade agreements, such as NAFTA and the EU, and has resulted in the transformation of GATT into the ambitiously all-inclusive World Trade Organization. In Southeast Asia, the emergence of a new type of economic development strategy, or economic integration, whereby subregions pool their manpower, capital and technology across political borders, has produced dynamic economic growth.<sup>1</sup> The influence of the "diaspora" or overseas Chinese is a major force driving this entrepreneurship.

Two primary indicators of economic integration are bilateral trade and investment. Intraregional trade in the Asian-Pacific region, with an annual volume of more than \$566 billion, exceeds both trans-Pacific and trans-Atlantic trade. The transfer of capital by the Four Tigers (Hong Kong, Singapore, South Korea and Taiwan), who provide more than 30 percent of all foreign investment in the ASEAN countries, exceeds that of both the US and Japan.<sup>2</sup> Furthermore, the combined economic power of southern China—Guangdong and Fujian provinces as well as Hong Kong and Taiwan—currently accounts for the world's third largest GNP, the

<sup>1</sup>Maria Hsia Chang, "Greater China and the Chinese 'Global Tribe,'" *Asian Survey*, October 1995, pp. 955-67.

<sup>2</sup>International Monetary Fund, *Directory of Trade Statistics* 1995.

largest foreign exchange reserves and the third largest foreign trade turnover.<sup>3</sup>

Since 1980, China's real GNP has grown by an average annual rate of 9 percent, with foreign trade accounting for an increasingly large share.<sup>4</sup> When Deng Xiaoping first embraced the concept of economic opening in 1978, the PRC's total foreign trade equalled a mere \$20 billion. By 1993, it had increased to more than \$195 billion, reflecting China's growing dependence upon its foreign trading partners. At the same time, China's economic growth began to rely increasingly upon foreign investment. Between 1980 and 1990, for example, the number of foreign investment contracts grew from 344 to 7,236 valued at \$1.6 and \$6.5 billion, respectively. By the third quarter of 1994, Beijing claimed China had attracted some \$80 billion in foreign direct investment (FDI) and \$275 billion in contracted foreign investment.<sup>5</sup>

#### THE ROLE OF OVERSEAS CHINESE

In general, the foreign investors largely responsible for China's present economic success are overseas Chinese, that is, ethnic Chinese living outside of mainland China. Their investment accounts for as much as 70 to 80 percent of China's total foreign direct investment. It is the impact of these overseas Chinese investors and that of the rapidly growing economic ties among the various entities in southern China that has given rise to the concept of what is widely known as "Greater China."

By definition, Greater China includes individuals from the People's Republic of China, Taiwan, Hong Kong, Singapore and the overseas Chinese in Southeast Asia and throughout the world. Their total estimated population is 1.2 billion on the mainland, plus 55 million overseas, including Taiwan. In general, they tend to be talented, energetic and upwardly mobile and the wealth they have created has been the force behind the region's economic explosion. In Thailand, ethnic Chinese make up 10 percent of the population but control more than 80 percent of the country's capital. The situation is similar in Indonesia, where they make up a little more than 3 percent of the population but control 73 percent of the capital.<sup>6</sup> For the majority, basic education is oriented within the framework of a Confucian family or clan. Their estimated economic power is \$2.5 trillion, not insignificant in light of the fact that the 1995 gross domestic product for the entire United States was \$7.2 trillion.

While not monolithic, the group does share certain characteristics in terms of language, heritage and culture. It also conducts an enormous—and as yet unmeasured—amount of business transactions, a significant proportion of which are handled in special ways. Quick, decisive, yet split politically, Greater Chinese immigration flows to Taiwan and the US (Silicon Valley), Canada and Australia but away from the Chinese mainland. Members believe for the most part that economic growth leads to political stability,

<sup>3</sup> Sung Yun-wing, "Patterns of Economic Interdependence in the Natural Economic Territory," in *Southern China, Hong Kong and Taiwan*, ed. by Jane Khanna, CSIS: Washington, DC, 1995.

<sup>4</sup> Robert A. Scalapino, "Foreword," in Khanna, op. cit.

<sup>5</sup> Chang, op. cit.

<sup>6</sup> *Ibid.*



and are relatively united in their desire for peace and stability. It is likely that in the not-too-distant future the combined gross domestic product (GDP) of Greater China could overtake that of the EU and the US or that the region will overtake Japan as the dominant regional power. Thus, it is vital that US policymakers understand exactly what role the region plays and will continue to play in the global economy as well as appropriate policy measures to insure the protection of US regional interests.

Greater China is an informal economic region that constitutes the fastest-growing economy in the world. This economic phenomenon owes a great deal to the investment, marketing and management skills of the overseas Chinese who share similar Confucian values, such as the importance of a long-term view, willingness to save, thrift and perseverance. Chinese entrepreneurs often will accept low profits in the short term in order to build up market share. Much of their continuing success, both short- and long-term, is due to the fact that they are hardy, self-reliant and willing to take risks.

From a business point of view, Greater China is rapidly emerging as a focal point for global industry, commerce and finance. This "natural economic territory"<sup>7</sup> combines a variety of essential skills and resources: the extensive technology and manufacturing ability of Taiwan; Hong Kong's outstanding entrepreneurial, marketing and services know-how; the excellent communications network of Singapore; the tremendous financial capital of all of the above, and the PRC's extensive endowments of land, natural resources and labor. The common link between these diverse regions and economies is the presence of ethnic Chinese entrepreneurs.

#### CHINESE REUNIFICATION?

David Shambaugh speaks of Greater China as the world's next superpower. In fact, if political obstacles can be overcome and China reunified under a single authority, this is not an unlikely scenario. Even without reunification, however, the strength and influence of Greater China will increase with time. While obstacles to formal reunification are overwhelming, the informal processes of integration are moving inexorably forward.<sup>8</sup>

The concept of Greater China is the product of three relatively distinct themes—economic integration, cultural interaction and closer political association of the international Chinese community. Some analysts question the feasibility of integration, in light of the disintegrative forces that continue to separate the various elements of the global Chinese community, while others are skeptical of its desirability either for China or the rest of the world.<sup>9</sup>

But economic integration, whereby the various Chinese economies surmount the political boundaries that have divided and isolated them, already is a reality reflected in the enormous increase in trade between Hong Kong and mainland China over the last 15 years, and the more recent but equally rapid growth of trade be-

<sup>7</sup> Scalapino, *op. cit.*

<sup>8</sup> David Shambaugh, ed., *Greater China: The Next Super Power?* Oxford University Press: London, 1995.

<sup>9</sup> Harry Harding, "The Concept of 'Greater China': Themes, Variations and Reservations," in *Greater China*, *op. cit.*, p. 9 ff.

tween Taiwan and the mainland. This expansion has been facilitated by the cultural ties among geographically separated Chinese societies. A common culture, common language, family ties and ancestral roots have, for the most part, made it easier for Chinese to develop commercial relations with one another than with non-Chinese.

Another factor which has encouraged economic integration has been the more conciliatory approach adopted by the principal Chinese economies in recent years. In the 1950s, both Beijing and Taipei pursued political and economic policies inimical to normal commercial relations. The PRC chose a strategy of socialist development which emasculated its foreign trade and virtually eliminated foreign investment. Mainland China's decision to welcome and promote foreign trade and investment since the late 1970s and the concomitant willingness of the Taiwan government to remove barriers to commercial relations with its former rival have resulted in the creation of a transnational Chinese economy.<sup>10</sup>

This was not, however, the result of natural economic forces nor are the major players lacking in ulterior motives. Beijing hopes that increased economic interaction eventually will bring about China's political reunification. It has, therefore, adopted a series of policies to stimulate commercial relations with Hong Kong and Taiwan, most notably, the creation of special economic zones. Hong Kong, in turn, regards economic ties with the mainland as a way of motivating Beijing to preserve the territory's political viability and prosperity throughout the transition of sovereignty from Britain to China in 1997.

In contrast, Taipei sees economic interaction with the mainland in the short term as a lever for extracting political concessions from Beijing, especially with regard to renouncing the use of force against the island and allowing Taiwan a larger voice in international affairs. This kind of interaction also may promote democratization in China. In the long term, many on Taiwan view economic integration as a more feasible and more tolerable form of national unity than any political reunification.<sup>11</sup>

Though it is unlikely that mutual economic benefits will lead gradually to a reunified Chinese polity, it is inevitable that the peripheral regions of the mainland will become more and more "contaminated" by Hong Kong, Taiwan and Singapore. The relative economic prosperity and cultural richness of the latter may inject a greater degree of political independence into the motherland. In fact, one result could be a significantly weakened center which in turn could prompt the emergence of a fully viable southern Chinese economic zone or, more significantly, a loosely-structured Chinese federation of different political entities under some form of symbolic unitary sovereignty.

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<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

SOURCES OF REGIONAL TRADE AND INVESTMENT  
INVESTMENT TYCOONS OF THE "BAMBOO NETWORK"

Ethnic Chinese trading circles have existed outside of China ever since the central authorities of the Ming Dynasty permanently stranded hundreds of Chinese traders overseas when they banned sea explorations in the 15th century. In more recent times, the exodus of millions of Chinese citizens during and after the Chinese Communist revolution in 1949 caused a rapid, large-scale expansion of this entrepreneurial "bamboo network." Regional trade and investment flows by overseas Chinese within Greater China today are driven in part by political and economic diversity, and the resulting challenge of how to link market economies with those that are centrally planned. An informal "growth triangle" between the three principal Chinese economies of Hong Kong, Taiwan and the mainland seems particularly appropriate given these circumstances.<sup>12</sup>

Most of the major players in this triangle come from the southeastern provinces of Guangdong and Fujian and have built complex business relationships according to cultural and ethnic ties that derive from their native place of origin. Investment, which is highly dependent upon these ties as well as conditions in the adopted territories, tends to flow from both Taiwan and Hong Kong to China and Southeast Asia. Investors include businessmen, politicians and bankers such as Albino Sycip, Halpin Ho and Robert Kuok and, increasingly, a new generation of MBAs—the children of the old money makers such as Henry Fok, Li Ka-shing, Henry Hsu and Y.Z. Hsu of Taiwan. Within the context of an economically more open PRC, extensive Taiwanese capital formation and the dynamism of mercantilist Hong Kong, money is moving toward opportunity and relative predictability.

Companies owned by overseas Chinese dominate the private business sectors of every southeast Asian country today. Typically, the founders of these businesses possessed little wealth initially and built their firms from scratch, contributing to the development of the local economy in the process. Today, many of these small family firms have grown into enormous conglomerates, each of which maintains interests in dozens of highly diversified companies. In 1994, the total assets of the 500 largest public companies in Asia controlled by overseas Chinese exceeded \$500 billion. One of the most striking characteristics of the typical overseas Chinese business is its international diversification. Hong Kong entrepreneur Lee Shau Kee, who owns controlling interest in the Henderson Land Development Company (estimated market value in 1995 of \$9.1 billion), is a good example. His firm invests in Beijing, Shanghai, Guangdong and Hong Kong, and maintains interests in a convention center in Singapore as well as residential development in the US and Canada. In 1995, Lee's personal net worth was

<sup>12</sup> "International Conference on the Emergence of the Southern Chinese Growth Triangle," Chung-Hua Institute for Economic Research, Conference Series #20, May 5-6, 1995: Taipei, June 1995.

estimated at \$6.5 billion, placing him among the world's 10 richest people.<sup>13</sup>

Another good example is Hong Kong real estate tycoon Li Ka-shing. In 1995, his personal net worth was estimated at nearly \$6 billion. Li grew up in Guangdong province, but moved with his family to Hong Kong in 1940 as a refugee from China's civil war. When his father died 2 years later, Li went to work for a company that produced plastic flowers and watchbands. He eventually worked his way up until he was able to start his own plastics company—Cheung Kong. Over the years, he diversified into telecommunications, infrastructure and energy industries. At present, Cheung Kong has a large interest (44 percent) in Hutchison Whampoa, one of the biggest ex-British "hongs" that traditionally have dominated Hong Kong. Li also holds smaller interests in a variety of enterprises, including Gordon Wu's Hopewell Holdings (Hong Kong) and Mochtar Riady's Lippo Group (Indonesia). His US partners include AT&T and Lockheed.

Li currently controls publicly traded companies that account for more than 10 percent of Hong Kong's total stock market value (\$300 billion). Clearly, the Li Ka-shing Group is a powerful business and financial force. Furthermore, Li's close working relations with government leaders in Beijing are both well-established and well-known, the PRC having appointed him to its advisory council for the takeover of Hong Kong in 1997. Li's youngest son, Richard, also has exhibited potential. Educated in the US (in economics and computer engineering at Stanford), Richard is the current vice chairman of Hutchison Whampoa. His personal business skills were revealed when he raised more than \$100 million from Hutchison Whampoa to start up Star TV, a satellite broadcasting system transmitted throughout Asia. Within three years, he sold two-thirds of the broadcasting company to Great Britain's Rupert Murdoch for over \$500 million. Richard's latest venture—Pacific Century Group—plans to adapt telecommunications and health care technology for use in Southeast Asia.

The Kuok Group of Malaysia, a business empire that encompasses a complex web of private and public companies, provides yet another example of cross-border business relationships in Greater China. Group leader Robert Kuok (Kuok Hock Nien), with a net worth of \$2.1 billion, has based himself in Hong Kong for more than a decade. Kuok's father came to Malaysia from Fuzhou in 1911 and opened a grocery store. Son Robert went into the commodities trading business in the 1950s and established the Malayan Sugar Manufacturing Company. By the 1970s, he handled some 10 percent of the world's sugar trade. Known widely as the "Sugar King," Kuok owns the Shangri-La chain of luxury hotels and Pacific Carriers, a diversified maritime company managing a fleet of 45 vessels and providing technical services, chartering, manning services and freight trading. Kuok properties are located in Singapore, Malaysia, Hong Kong, the Philippines, Burma, Indonesia and Canada.

<sup>13</sup> Murray Weidenbaum and Samuel Hughes, *The Bamboo Network*, Martin Kessler Books: New York, 1996, p. 24 ff.

In Hong Kong, Kuok's extensive activities include 35 percent ownership of the colony's largest English-language daily newspaper (the South China Morning Post) and Television-Broadcasts, Ltd., as well as 15 development projects in China. The Kerry Trading Company, which serves as the flagship holding company of the Kuok Group's main businesses in Hong Kong and China, has established many ventures on the mainland including flour and feed mill plants, vegetable oil plants and an exclusive contract to bottle Coca-Cola in several cities. Kuok also is a partner in the Beijing World Trade Center, an office, conference and hotel complex that is the country's largest commercial property project. In 1993, he officially retired from the daily running of the group's companies, but divided operations between two sons. He keeps a close eye on their activities and remains at the center of the decisionmaking process.

Other investors of note who illustrate the overseas Chinese penchant for setting up intricate networks of subsidiaries and associated companies both public and private include:

- Kwek Leng Beng (net worth more than \$5 billion), who runs the Hong Leong Group in Singapore. Hong Leong is engaged mostly in financial companies and hotels and made news in the US when it was involved in the purchase from Donald Trump of the Plaza Hotel in New York. Kwek is the eldest son of the late Singapore property tycoon Kwek Hong Png.
- Ong Beng Seng of Singapore, the managing director of Hotel Properties Limited (HPL). HPL is a public corporation which controls a variety of construction, hotel and restaurant management, and entertainment subsidiaries in Singapore, Hong Kong, Malaysia and Australia. The group is best known for its high-profile restaurant franchises, including Planet Hollywood, a movie-theme restaurant chain co-owned by Sylvester Stallone and Arnold Schwarzenegger. HPL also controls 50 percent of HRC Holdings, which has established Hard Rock Cafes in Beijing, Taipei, Singapore, Kuala Lumpur, Bangkok, Jakarta and Bali.
- Yung-ching Wang (net worth more than \$2 billion), who controls the Formosa Plastics Group (FPG). His Taiwan-based Formosa Plastics Corporation is the world's number one producer of PVC, a widely used plastic polymer. In recent years, Wang has diversified into electronics and computer manufacturing. He currently is negotiating an unprecedented \$36 million dollar investment in China. Each of his 10 children is an executive in the family business.
- Dhanin Chearavanont (net worth \$5.3 billion), a.k.a. the "Chicken King" and head of the CP Group. His family moved from Guangdong Province to Thailand in the 1920s. In the 1950s, he set up a new company, Charoen Pokphand (CP), a chicken-feed mill. Today, CP is highly diversified with 49 of its more than 200 companies in China. Other CP partners include US retailer Wal-Mart, Pepsico, Nynex Inc. and Arbor Acres.

TelecomAsia, a joint venture between CP Group and Nynex, was recently listed on the Bangkok Stock Exchange.<sup>14</sup>

Obviously, transnational trading networks are very much in accord with past and present Chinese tradition. They allow for flexible and efficient transmission of information, finance, goods and capital in what often are informal agreements and transactions. Confidence and trust replace contracts as the fundamental guarantees that commitments will be fulfilled. In a region where capital markets are rudimentary, financial disclosure is limited and contract law very weak, interpersonal networks are critical to moving economic resources across political boundaries.

Every wealthy overseas Chinese must make his peace with his host country and cannot afford to be viewed as unpatriotic by his new country of residence. Hence intermarriage with host country powerhouses and joint ventures with local military, political and business leaders have been crucial to the survival and prosperity of the overseas Chinese. But the China connection is also crucial and, therefore, a skillful balancing act is necessary, whether it be in Thailand, Malaysia or the Philippines. Western governments in the US, Canada and Europe seem less concerned with Chinese control of their economies, and Chinese can operate with greater confidence in these systems.

In recent years, many family-owned businesses throughout Greater China have broken with tradition somewhat and actively courted multinationals in search of strategic alliances for the future. Such alliances are of growing importance as Asian economies mature and global competition increases. To survive in the next century, Pacific Rim companies need more technology, international management know-how and, of course, capital. For the multinationals, the ethnic Chinese act as intermediaries who can guide them through Asia's rocky business climate and help them build bridges with new markets, especially with China. This is a significant new trend in business in Greater China.<sup>15</sup>

Ultimately, the family-oriented style of management characteristic of overseas Chinese firms is both a strength and a weakness. Family control allows for a less bureaucratic management structure that permits rapid decisionmaking, and family loyalty minimizes dissension and destructive in-fighting. On the other hand, family members may not always possess the necessary management skills to maintain the family firm's economic competitiveness. The reluctance of family members to disclose information about the family business, moreover, makes it very difficult to perform any systematic analysis of this network.

#### REGIONAL TRADE AND INVESTMENT PATTERNS

Cultural and linguistic affinities without a doubt have helped to facilitate the economic integration of China, Hong Kong and Taiwan. But international trade and foreign investment have been the true catalysts. Since 1978 when Deng Xiaoping launched his eco-

<sup>14</sup> John Naisbitt, *Megatrends Asia*, Simon and Schuster: New York, 1996, p. 25; Marcus Brauchli and Dan Biers, "Overseas Chinese Reach Outside the Clan," *Asian Wall Street Journal*, 4/20/95; Interview with Yong Pow Ang, 5/24/96.

<sup>15</sup> Brauchli and Biers, op. cit.

conomic open door policy, overseas Chinese have invested more than \$65 billion in the mainland, more than 80 percent of all foreign investment there. China's resources of land and labor make it an attractive alternative for Hong Kong and Taiwanese industrial facilities. For China, lacking both capital and technology, such a relationship promises huge opportunities for new employment and production. Overcoming technological backwardness is a cornerstone of any developing country's growth strategies, and it is no coincidence that Beijing has increasingly used foreign investment to encourage technical progress. Furthermore, China's willingness to accept overseas participation, including foreign direct investment in its domestic economic development, reveals the political significance of China's open door strategy.<sup>16</sup>

### *Hong Kong: Dynamism and Know-How*

Hong Kong's dynamic, free-market economy is characterized by a liberal investment regime, strong industrial base, low taxation and world-class financial services. Strategically situated on the western rim of the fast-growing Asia Pacific region, it also has excellent human resources and infrastructure, and serves as a gateway to China. Since the 1970s, Hong Kong has emerged as a major economic powerhouse earning a well-deserved position as one of the four most dynamic economies of Asia. It is the world's eighth largest trading economy and operates the world's largest container port and second busiest airport in terms of cargo. Per capita income—over U.S.\$21,000 in 1995—on a purchasing parity basis exceeds that of Britain, France, Canada and Australia. With over 500 financial institutions from 43 countries, including 85 of the world's top 100 banks, Hong Kong is a leading international financial center. The Hang Seng stock market is one of the liveliest in the region.<sup>17</sup>

Hong Kong is the preferred base for regional business and Americans constitute the largest foreign business community in the territory with more than 31,000 US passport holders in residence and approximately 1,000 US companies located there. The US is the colony's second largest trading partner after China. Its presence is widely perceived by the local populace as the predominant foreign presence in the period prior to and immediately following 1997. It should come as no surprise that any perceived decline in US-China relations is viewed with alarm and is considered potentially destabilizing to confidence in Hong Kong's future.<sup>18</sup> A continued U.S. naval presence in the form of frequent ship visits would be welcome by most Hong Kong residents as a stabilizing force.

Hong Kong is the economic nexus of Greater China. The territory performs a traditional entrepot role whereby approximately 70–80 percent of current commercial investment in China either originates in or flows through the region. Hong Kong itself is the largest source of foreign direct investment in the mainland, although a growing percentage of this is "reinvestment" by PRC subsidiary

<sup>16</sup> Robert F. Ash and Y.Y. Kueh, "Economic Integration with Greater China: Trade and Investment Flows Between China, Hong Kong and Taiwan," in *Greater China*, op. cit., p. 59 ff; Chang, op. cit.

<sup>17</sup> Frank Martin, "Hong Kong in Transition: Challenges and Prospects," American Chamber of Commerce: Hong Kong, July 7, 1995.

<sup>18</sup> *Ibid.*

corporations. Bilateral trade has grown by nearly 40 percent average annual growth since 1978 and, in fact, by 1991 Hong Kong and China were each other's largest trading partners.

A considerable portion of Hong Kong's trade with China, as much as two-thirds of its foreign investment there, is conducted with Guangdong and Fujian. This connection has vaulted Guangdong—the homeland of most Hong Kong Chinese—into the position of China's foremost exporting province consistently accounting for more than one-third of all PRC exports since 1986. Hong Kong has provided a similarly important function for Fujian, as the province's largest export market since 1992. In addition, increased labor and land costs in Hong Kong led to a horizontal expansion in the 1980s in manufacturing to form outward processing in Guangdong, especially in the Pearl River Delta and the special economic zones (SEZs). This has caused a major industrial restructuring in Hong Kong and has helped in its transformation from an export manufacturing zone to a full-fledged services center. The integration of Hong Kong and southern China's provincial economies over the past decade is truly extraordinary.<sup>19</sup>

Much of the expansion in Hong Kong-PRC trade is due to Hong Kong's important role as a re-exporter to and from the mainland, especially vis-à-vis Taiwan and the mainland. Hong Kong is a conduit not only for tourists and tourist earnings from Taiwan, but for the exchange of goods and merchandise across the Taiwan Strait. The bulk of this is into Fujian, the ancestral home of most Chinese on Taiwan.

In spite of these encouraging statistics, Hong Kong is experiencing its own small-scale diaspora of Chinese professionals from Hong Kong to North America and Australia. As 1997 draws near, Hong Kong emigrés with substantial capital and professional expertise are settling in Chinese communities in Toronto, Vancouver, Los Angeles, San Francisco, New York and Sydney. At the same time, Chinese in these cities also are coming from the mainland, Taiwan, Singapore, Malaysia, Indonesia, the Philippines and Vietnam. What this, in fact, indicates is that a growing proportion of overseas Chinese have decided to make the transformation from temporary sojourner to deliberate emigré, a fairly new phenomenon. This assumes a conscious choice to realize one's "Chineseness" in spite of moving far from China.

Recent political changes in Hong Kong have not been as dramatic as those on Taiwan, but have been no less significant. The rise of a middle class and growth of civil society have led to increased demands for more institutionalized forms of political participation. For better or worse, the combination of the brutal events at Tiananmen Square in June 1989 and the democratizing proposals by the colony's Governor Chris Patten in 1992 have fundamentally altered the substance of Hong Kong politics—accelerating the demand for democracy.

<sup>19</sup>Linda Fung-ye Ng and Chyau Tuan, "Post-1997 Hong Kong and Its Impact on Economic Relations between the Two Sides of the Taiwan Strait," Department of Decision Sciences and Managerial Economics, The Chinese University of Hong Kong, Paper presented at the 37th Annual Conference of the American Association of Asian Studies: Reno, Nevada, November 1995.



### *Taiwan: Technology and Capital Formation*

Taiwan's economic growth over the past 20 years has been nothing short of a miracle. A quick statistical review reveals an average annual economic growth rate of nearly 9 percent between 1965 and 1994, foreign reserves of more than \$98 million (July 1995) and a GNP of \$244 billion in 1994.<sup>20</sup> The combination of government leadership, entrepreneurial ingenuity and a strong work ethic has made Taiwan a focussed investor and innovator in international trade, in spite of political isolation. The nationalist government, moreover, has strived to make Taiwan a valued partner in many joint ventures in a number of key places in North America, notably Silicon Valley and Los Angeles.

Taiwan's "economic miracle" has been guided by a conscious effort to follow a radically different path of development from that of the Chinese mainland. Despite the constant refrain of the desire for Chinese unification, Taiwan and the PRC have vastly different economic and political systems, social conditions and cultural orientations. The Taiwan independence movement may have created one of the most controversial and explosive political issues on the island, but the democratization process, which reached its peak in the recent election of President Lee Teng-hui, undeniably and inevitably propelled political disparities between Taipei and Beijing to center stage.

Contacts between China and Taiwan have expanded enormously since 1987. The exchange of mail, phone calls and an average of one million Taiwan residents visiting the PRC each year brought at least \$2 billion worth of financial assistance to their mainland relatives.<sup>21</sup> Much new investment in China has come from Taiwanese investors. Prior to 1987, Taiwan's indirect trade with the mainland totalled only \$1.7 billion, but soon after Taipei relaxed the travel ban and gave business the go-ahead, this figure quickly climbed to \$17.8 billion in 1994. Since then, some 3,000 Taiwanese firms have invested \$25 billion, mostly in Fujian and Guangdong, not including indirect trade via Hong Kong. Taiwan is the PRC's second largest source of foreign investment, so its impact on the Chinese economy as a whole is significant. The scale of investment continues to grow and its structure is diversifying, although it is worth noting the difficulty of obtaining completely accurate figures due to the covert nature of much of this economic activity.<sup>22</sup> Indirect trade and investment also has ballooned since the late 1980s. These activities remain indirect because Taiwan insists there can be no direct contact or commerce until the PRC renounces the use of force against Taiwan and drops its efforts to block the ROC's international diplomacy. Bilateral trade, however, remains strong and grew from \$77 million in 1979 to \$14.3 billion in 1993. By 1994, Taiwan and the mainland had become each other's fourth largest trading partner.

Beginning in the mid-1980s, Taiwan's labor-intensive industries began to move their production facilities offshore in response to the

<sup>20</sup> Lin Teh-chang, "The ROC's Foreign Aid and the Southward Policy," *Issues and Studies*, Institute of International Relations: Taipei, October 1995; Interview, May 17, 1996.

<sup>21</sup> Chang, p. 962.

<sup>22</sup> Tee-Kang Leng, "Economic Interaction Across the Taiwan Strait," *Issues and Studies*, Institute of International Relations: Taipei, November 1995.

appreciation of the New Taiwan dollar, rising labor costs, a gradual loss of competitiveness and the need for stable supplies of raw materials. Taiwan had reached the stage in its economic development where it needed to invest overseas to sustain economic growth. In view of this, almost all labor-intensive industries that are no longer competitive in Taiwan are now allowed to invest indirectly in the PRC. Although Taiwan investment in the mainland has been somewhat cautious in terms of money, due to the PRC's less developed investment environment, political risks, constraints on investors, and lack of compatible support systems in finance and bureaucracy, it has been high in terms of number of firms. The top three areas of investment have been electric and electronic components, vehicles and shoemaking.<sup>23</sup> The ASEAN countries also have been a powerful magnet for these migrating industries because of their rapid economic growth, their abundance of human and natural resources and their encouragement of foreign investment.

In December 1993, the Taiwan government adopted a policy aimed at diverting part of Taiwan's trade and investment flows from China to Southeast Asia. The purpose of the policy was to enhance regional economic cooperation and promote greater integration while reducing the political and economic risks associated with over-reliance on PRC trade. Other objectives were to take advantage of cheaper labor costs, to establish Southeast Asia in place of Hong Kong as an entrepot with China after 1997, to combine Taiwan's expertise with regional resources to expand bilateral trade and strengthen Taiwan's local industries and to improve commercial relations with the ASEAN countries in a strategic move to improve Taiwan's regional security status. A variety of economic and political considerations, in fact, prompted what has been dubbed Taiwan's "southward policy."<sup>24</sup> Taiwan also took specific steps to create a regional operations center which would make it an integral part of Asian economics.

Indeed, Taiwanese investors now are shifting their focus away from total dependence on the mainland, with special emphasis on investing in Indonesia, Vietnam and the Philippines. Roughly 60 percent of Taiwan's investment currently goes into the PRC and 40 percent goes elsewhere (10–15 percent into Silicon Valley). A committed foreign aid program also is being used to achieve Taiwan's "southward policy" goals. Significantly, the ROC's southward policy and its regional economic assistance represent the first concrete official involvement in economic integration in the Asia Pacific region.<sup>25</sup>

Taiwan's business community has had an increasing influence on cross-strait economic policy since the early 1980s. Taipei's mainland policy is no longer the sole purview of the state but rather has become the subject of accommodation between big business and the state with the rise of democratization. Enterprises are more involved in policymaking because they want to protect their investments in the mainland. There also have been frequent high level exchanges between Taiwan and China through major Taiwan cor-

<sup>23</sup> Lee-in Chen Chiu and Chin Chung, "An Assessment of Taiwan's Indirect Investment Toward Mainland China," *Asian Economic Journal*, 1993, vol. 7, pp. 41–69.

<sup>24</sup> Lin Teh-chang, p. 8.

<sup>25</sup> *Ibid.*; Interview, May 17, 1996.

porations, such as Evergreen and Formosa Plastics, and visits by Taiwan's miracle builders such as K.T. Li. Taiwan's contributions to China's banking system, its infrastructure and, perhaps most importantly, agriculture, have been both substantive and significant.

While the expanding and often illegal movement of capital and goods across the Taiwan Strait increases with the integration of Greater China, a political gulf still exists, although the gap has narrowed appreciably in recent years. The impetus has come primarily from Taipei while Beijing has continued to frustrate Taiwan's bid for international recognition. Dramatic liberalization of domestic politics on Taiwan has helped in the development of growing ties between Taiwan and mainland China. Taiwan today is one of the most open and democratic polities in all of Asia. The strengthening of the Legislative Yuan and the formation of a legitimate opposition party in the Democratic Progressive Party as well as a host of other lesser parties have diluted the KMT's political dominance. Political pluralism and maturation in Taiwan may have some important implications for the future.<sup>26</sup>

#### *Singapore: Finance and Communications*

In less than two decades, Singapore has emerged as a major center in the Asian-Pacific region in trade, high technology, petroleum, tourism, medicine and finance. Ethnic Chinese comprise 75 percent of the population, with representation of at least six major groups. Government regulations and intervention are omnipresent and strong regulations control the press, mass media, public discourse and many aspects of peoples' so-called "private" lives. Singapore often is described as a sanitized variant of Chinese society.

In 1990, Singapore became the fifth largest investor in the PRC. The two governments have extremely good working relations, and China views Singapore as something of a model for its own economic and political development. Unlike Hong Kong, most Chinese speakers in Singapore use Mandarin, the same dialect that is used on the mainland, and this greatly facilitates cooperation. Not only does Singapore play an important pedagogical role, teaching PRC officials about the fundamentals of everything from public utilities to financial risk management, it also helps channel investment from other parts of Southeast Asia into the mainland.<sup>27</sup>

The city-state's greatest strengths include infrastructural development, thus Singapore has negotiated for seaport authority to construct, manage and upgrade many of China's ports. In the Suzhou Project, Singapore is developing a package of utilities, roads, transportation, telecommunications and power generation plants. This enormous, long-term investment will cost \$2-3 billion in total, but is very competitive commercially and many multinational companies have already signed up from Japan, the US and the EU. If all goes well, the Singaporeans will work with the Chinese to develop a second project in Wuxi.<sup>28</sup>

<sup>26</sup> Scalapino, op. cit.

<sup>27</sup> Interview, Friedrich Wu, May 24, 1996

<sup>28</sup> Ibid.

Singapore is only modestly successful in Chinese investment because business with the mainland is not always profitable.<sup>29</sup> This is due to the fact that in Singapore, businessmen do not need to resort to bribery to get things done. All PRC officials, however, expect "red packets" full of money as the cost of doing business with them. Sometimes these expenses often can run very high as projects are dragged out to maximize the number of meetings and, therefore, the amount of "squeeze" required of the investor. Within Singapore's well-controlled legal system, it is difficult for individual firms to explain why they had to pay bribery money to Chinese partners and whenever possible, expenses of this kind are buried in public relations budgets. In recent months, this has slowed down somewhat as even corrupt Chinese officials are beginning to fear retribution and investigation.<sup>30</sup>

Senior Minister and elder statesman Lee Kuan Yew fans the idea of an overseas Chinese network which he sees as being in Singapore's best interest. He would like to see Singapore displace Hong Kong as the financial regional center. In spite of its thriving economy and the fact that its currency market is already greater than Hong Kong's, however, many believe Singapore is too hampered by the weight of its own regulations and authoritarian government to achieve this and that it has insufficient expertise or depth in its financial infrastructure. Furthermore, tensions between Singaporeans and Chinese have resulted from the labor shortage induced by a recent policy of raising salaries. The policy caused many businesses to lower costs by hiring more junior level staff and paying them less. Chinese immigrants have been the most willing to take these low-paying jobs and Singaporeans bitterly resent them for it.<sup>31</sup>

In spite of these problems, the Singaporean leadership seeks a policy of constructive engagement with China as a means of figuring out what the Chinese are up to militarily, politically or economically. It also believes linking politics with economics will backfire because it blurs too many issues and may cause greater long-term troubles.<sup>32</sup> The Singaporean authoritarian model appeals to some of the Chinese leadership, and Chinese cadres have been sent to Singapore to learn from their ethnic brothers how to make nationalism work better after socialism slowly burns out.

### *China: Extensive Resources and Economic Reform*

When China began to reform its domestic agricultural and industrial economy, it also took the first critical steps toward opening up its borders to trade with Southeast Asia and the rest of the world. The policies that brought about these changes were implemented in four distinct stages. The first was the establishment of four special economic zones (SEZs) in 1979, designed to copy similar foreign trade and economy activity zones established in the newly-industrialized countries. In 1984, the liberal economic policies of the SEZs were extended to include an additional fourteen coastal cities. Hai-

<sup>29</sup> Tan Tarn How, "Firms 'Less Than Enthusiastic' About China Investments," *The Straits Times*, May 25, 1996.

<sup>30</sup> Interview, Pang Cheng Lien, May 25, 1996.

<sup>31</sup> Interview, Lynn Pan, May 24, 1996.

<sup>32</sup> Interview, Lee Lai To, May 25, 1996.

nan Island was declared an SEZ in 1988, and was quickly followed by the opening of the most ambitious economic development zone to date—the Pudong area in Shanghai—in 1990. Much of Shanghai is still state-owned industry. In 1992, liberal economic policies were extended once again, this time to selected cities in the interior and along China's southeastern borders. This was done in part to shift growth away from southeast China to central China and to give the center a greater say in economic development.

Ease of access to foreign markets, particularly to overseas Chinese traders in nearby Hong Kong and Taiwan, was the primary consideration in locating the zones. Originally, Beijing intended the SEZs to produce and export manufactured goods, facilitate the import of technologies and attract foreign capital. In practice, however, they have served as laboratories for experimentation with market reform. By opening up foreign investment, the SEZs provided overseas Chinese with opportunities to expand their business relationships with the mainland and to establish a commerce-oriented network.

Some of the younger members of the overseas Chinese community who emigrated to the West, especially to the US and Canada, are now returning home with Western ideas. Those with MBAs from American universities are loosening their ties to the ancestral cultural heritage and adopting more modern business techniques. Over time, traditional cultural factors will play a reduced role in Southeast Asian business, especially as the reins of power are passed to a younger generation of business leaders who lack their parents' emotional ties to the mainland. But the residue of "liberation" theory still persists, and there are many powerful leaders in China who still believe political power grows out of the barrel of a gun. They will constitute a reactionary force for years to come, especially with growing nationalism becoming the core value in China.

The ability to rely on personal contacts may become less significant if and when the Chinese mainland adopts more modern political and legal institutions in order to participate more fully in the global marketplace. In the long run, such adaptations will be essential to maintaining competitiveness in an increasingly high-tech global marketplace. In the short run, family control will continue to be an essential ingredient in dealing effectively with the loose institutional structure that typifies the economies of Southeast Asia.

#### DIVISIONS WITHIN GREATER CHINA

Local loyalties and major differences between Taiwan and China are two main sources of division within Greater China, as are business competition, family and group rivalries and distaste for the status quo on the mainland. Other significant problems include the emergence of the "Chinatown vs. Scarsdale" mentality, the power struggle in the PRC between the periphery and the center, income disparities between the coast and inland regions, and competition between players in Hong Kong, Shanghai, Singapore and Taipei for the leading role as metropolitan regional center. In addition, official Chinese collusion with triads in illicit as well as legitimate trade, justified as part of China's purported drive for stability and

prosperity at all costs, has caused many powerhouses of business to relocate to areas such as Vancouver, where they can work in a permissive and wealthy system.

#### THE CHALLENGE TO CENTRAL AUTHORITY

A key to economic success in Greater China has been a willingness by investors and governments alike to learn from the rest of the world, a commitment to innovation and a strong sense of national priorities. As illustrated above, these dynamic societies are addicted to change and prepared to reinvent themselves constantly. The consequences of intraregional economic coordination and cooperation, however, are political and strategic as well as economic, a fact that raises difficult questions concerning the maintenance of political control. Undoubtedly, increased economic integration has helped modernize each of these economies and indirectly enhanced their power. Yet ultimately it also has heightened security concerns as economic ties have resulted in an unexpected compromise of central authority over larger and larger areas, a grave concern for China and Taiwan in particular.<sup>33</sup>

Economic linkages may challenge state sovereignty when competing national interests clash, as Taiwan was made painfully aware during its recent national elections. Risk to all parties is great as political friction also constitutes a threat to economic well-being. These issues are especially relevant in southern China where impressive economic performance has gained worldwide attention since Deng Xiaoping's innovative open door policies were adopted in the early 1980s. Capital and other inputs from Taiwan and Hong Kong as well as from other overseas Chinese communities have created an economic boom, yet the absence of a coordinated policy framework for this market reflects the conflicting political agendas of the various players. This market actually has grown and thrived in spite of unilateral economic policies adopted by each player in an ever-changing process no one of them fully controls.<sup>34</sup>

For the overseas Chinese, large-scale investments in areas controlled by the mainland pose a threat as well as an opportunity. Many of the economic attractions of the region are offset by political instability, an underdeveloped legal system and an unpredictable future, all serious deterrents to potential investment. China's uncertain political future gives rise to concerns regarding the potential for extortion, expropriation and nationalization since many Chinese entrepreneurs have seen China's political upheavals firsthand and know the depth of their destructiveness. If the mainland decides to abrogate its agreement to allow the continuation of economic and personal freedoms in post-1997 Hong Kong, for example, as the regime's current actions may suggest, investor panic could result in a shift of capital from the territory to Singapore and other regions of Southeast Asia. Luckily, the bamboo network is strong enough and sufficiently flexible to operate quite rapidly if drastic change becomes necessary once again.<sup>35</sup>

<sup>33</sup> Jane Khanna, "The Calculus of Interests in the Subregional Economies of Southern China, Hong Kong and Taiwan," in *Southern China, Hong Kong and Taiwan*, op. cit., pp. 1-14.

<sup>34</sup> *Ibid.*

<sup>35</sup> Weidenbaum, op. cit.

American business in China has been beset by seemingly endless problems. Rules and regulations often are not publicized by Beijing and may be changed without notification. Currency is not yet freely convertible and many firms have difficulty repatriating their profits. Signed contracts are not legally binding and judicial recourse is limited. Copyright infringement and other forms of intellectual property theft are widespread and often involve government officials, many of whom are out of control, even by Beijing.

Problems with trade between Taiwan and the mainland include conflict between Taiwanese investment goals and mainland plans for industrial transformation. In Xiamen (Fujian), for example, Taiwanese investors wish to expand the chemical industry while local development priorities stress the build-up of the electronics industry. But Taiwan's authorities still ban involvement in what are considered defense-related, high-tech products, including electronics, and thus the level of technology investment has remained, in Chinese terms, disappointingly low.

At the same time, the influx of Hong Kong and Taiwanese investment has aggravated the disparity of economic development between China's southeastern coastal regions and the interior. Increasingly, the country is divided between the savvy, export-oriented economy in the south and the centralized, inward-looking hinterland. GNP and per capita income are more than double in the south, and this has caused large-scale migration which has further destabilized the inland economy. Economic inequality has led to strong opposition from within the ranks of the CCP leadership and widespread resentment by mainland authorities and those living in less fortunate areas. Clearly, there is tremendous potential for social unrest, and if the Chinese authorities do not take action to reduce the growing economic gap, there soon may be some serious consequences.<sup>36</sup> So far, efforts to direct investment inland—such as the Three Gorges Dam project—have been only partially successful. While long-term plans such as this may be the government's solution of choice, in the near term, the more successful inland investments have been driven by more purely economic reasons. Shanghai's textile industry, for example, is responding to traditional forces of supply and demand by moving inland in search of cheaper labor and land.

In general, while the emergence of Greater China as an economic territory has been a positive development, extensive economic integration has not reduced the political conflicts caused by security concerns. These, in fact, have increased with demands for greater autonomy in Taiwan, Hong Kong's absorption into southern China's economy and concomitant demands for democratization, and China's fears for the legitimacy and stability of the CCP.<sup>37</sup> What is obvious even to the casual observer is that Beijing and Taiwan are pursuing competing political agendas in their active promotion of closer economic links across the Taiwan Strait. Beijing desires to counterbalance the growing tendency in Taiwan toward any form of independence and eventually to force Taipei to come to the bar-

<sup>36</sup> Qi Luo and Christopher Howe, "Direct Investment and Economic Integration in the Asia Pacific: The Case of Taiwanese Investment in Xiamen," in *Greater China*, op. cit., p. 113 ff.

<sup>37</sup> Robert S. Ross, "The Policies of Economic Integration Among Taiwan, Hong Kong and Southern China," in Khanna, op. cit., pp. 82-91.

gaining table on Beijing's terms. Taipei hopes to create powerful interest groups in China that want to avoid the use of force against their business partners and to encourage "peaceful evolution" by introducing Asian capitalism to the mainland.<sup>38</sup>

In addition to economic and personal linkages, the spread of a common popular culture—known as "Gangtai" culture (a blend of the Mandarin names for Hong Kong and Taiwan)—among the three principal Chinese economies is a powerful force promoting the further integration of the region. The ultimate political consequences, however, may be extraordinarily far-reaching as it is highly unlikely the political center can remain unchanged in the face of this potent cultural challenge from the geographical periphery.<sup>39</sup> In light of the desire of young mainlanders, whose allegiance to CCP ideals is shaky at best, to catch up with their more sophisticated compatriots in music, fashion and modern lifestyles, it is most probable that Beijing slowly but surely will lose both economic and cultural authority in the periphery, thereby undermining its political effectiveness as well. "Gangtai" pop culture inevitably will undercut central dominance by providing the first serious ideological competitor to Communist Party leadership.

#### AFFLUENCE VS. INFLUENCE

A number of overseas Chinese still think that money buys everything. In China, however, this is not necessarily so, as Hong Kong entrepreneur Li Ka-shing learned to his chagrin when his ill-fated Oriental Plaza project ran afoul of Beijing politics.<sup>40</sup> The influence of overseas Chinese on PRC economic policy has proved to be minimal at best. Economic decisionmaking is still conducted primarily at the local level through informal structures, and most local and provincial leaders try to avoid contact with the center whenever possible. This is reinforced by the fact that nowadays any economic project worth less than \$30 million need not be reported to Beijing. The resulting economic independence often results in some highly creative machinations at the provincial and local levels.<sup>41</sup> There is a growing trend for greedy local entrepreneurs to make monopolistic deals with local cadres in order to keep labor costs low and exploit cheap labor and central foreign investment. This is a reversion to the old Chinese way of doing business, in a manner that is uncompetitive and often corrupt.

Formal economic and political channels are used only in the cases of larger projects or those which involve government-to-government arrangements, such as the Suzhou project between China and Singapore. Small regional businesses, which are the most likely to make a profit, generally avoid politics but try to collect all available information to determine how to profit from current policies. Obtaining internal documents (neibu wenjian) in advance of their public announcement, for example, is a particularly risky but lucrative means of beating the competition. For obvious reasons,

<sup>38</sup> Luo and Howe, *op. cit.*

<sup>39</sup> Tu Wei-ming, "Cultural China: The Periphery as the Center," in *The Living Tree: The Changing Meaning of Being Chinese Today*, Stanford University Press: Stanford, 1994.

<sup>40</sup> Telephone interview, Marcus Brauchli, May 20, 1996.

<sup>41</sup> Interview, Yong Pow Ang, May 24, 1996.



personal connections (*guanxi*) become very important under these circumstances.<sup>42</sup>

But it is Chinese economic retrenchment, rather than limited political influence, that has led to a reduction in the number of PRC investment projects by overseas Chinese. All foreign investment has slowed down, in fact, due to the difficulty in securing loans. For the last several months, Beijing has pursued strict deflationary policies which should help "cool down" the economy and loosen the money supply. Nonetheless, fixed asset investment within the mainland is flattening out, although some Hong Kong money still is being channeled towards infrastructure, and the center is no longer encouraging as much small-scale foreign investment preferring to concentrate on more high-tech projects subsidized by multinationals.<sup>43</sup> Indeed, recent transshipment problems, whereby containers filled in Chinese ports suddenly "disappear," suggest that trade ostensibly intended for Hong Kong or elsewhere is being diverted internally within the PRC.<sup>44</sup>

#### REGIONAL RIVALRIES

In purely economic terms, the Asian pie is growing and there is plenty of room for a variety of economic leaders within the region. The two front-line contenders in Greater China—Singapore and Hong Kong—both have their respective strengths, namely, foreign exchange and financial management. But other players, such as Malaysia, Taiwan, Shanghai and Australia, would like to enter the race too, and additional rivals on the mainland soon may include the cities of Tianjin, Dalian, Qingdao and Yantai.<sup>45</sup>

Rivalry within Southeast Asia and the approaching transition to Chinese sovereignty in 1997 have sparked debate on how to secure Hong Kong's position as the region's main financial center in addition to numerous proposals to spur competitiveness. In its favor are the weight and sophistication of Hong Kong's financial base. In spite of the transition, Hong Kong remains the natural financial center for China and overseas Chinese investing in the motherland. Not only are the majority of the top 100 banking institutions located in the territory, the stock market is second only to Tokyo, and the foreign exchange market is the world's sixth largest in terms of volume. In recent years, Hong Kong has attempted to gain control of property values and implement a national pension scheme. The latter would provide a vital pool of savings to help counter the attractions of its major rival, Singapore. Market analysts tend to agree, however, that if the market stays unhindered and transparency and rule of law are maintained after 1997, these actions will go much farther towards retaining Hong Kong's leadership role as a regional financial center than expensive targeted incentives that may be difficult to implement and maintain.<sup>46</sup>

<sup>42</sup> Ibid.

<sup>43</sup> Interview, Craig Smith and Shan Li, May 21, 1996.

<sup>44</sup> Interview, Ian Perkin, May 22, 1996.

<sup>45</sup> Interview, Yong Pow Ang, May 24, 1996.

<sup>46</sup> John Ridding, "HK Seeks to Defend Financial Market Lead," *Financial Times*, February 20, 1996.

## BEIJING'S "FOUR OBSESSIONS"

Although Beijing admires the Singaporean path toward political and economic development, with its blend of authoritarianism and economic modernization, Taiwan's gradual progress toward political pluralism holds the greatest appeal to the West. Sustained economic growth and stability, it seems, can inject democracy even into the most resolute authoritarian regime. These two models notwithstanding, it is critical that Western policymakers understand the PRC's very real security concerns and the potential for social unrest that has produced Beijing's "four obsessions."<sup>47</sup> Despite a united political front consistently presented to the West, these areas are sources of serious political disagreement within the PRC hierarchy.

*Sovereignty*

This issue is a political lightning rod for China that resonates most shrilly when Beijing feels it is being treated on an unequal footing or as a junior partner in the international arena. Discussions of Beijing's territorial claims in Hong Kong, Taiwan and Tibet, for example, often generate the nation's most emotional and inconclusive debates because they imply a questioning of China's sovereignty, a situation that is intolerable and, according to the Chinese, non-negotiable. When this is combined with nationalistic issues, such as the site of the Olympics or joining WTO, and the fuse of Chinese unity is ignited, circumstances can become fairly explosive, as they did in the Taiwan Strait in March 1996.

*Stability*

This is always a priority with the PRC because it is a measure of legitimacy as well as a political end. In view of China's phenomenal economic growth, stability is a fragile commodity. As circumstances have improved for large numbers of the Chinese urban population, so have their expectations and those of groups in less fortunate areas who have not yet felt the benefits of economic modernization. With a population of 1.2 billion and counting, the threat of social unrest by even a small proportion of the citizenry constitutes a very real danger to continuing economic progress.

*Containment*

Chinese fears of alleged Western attempts to "contain" the mainland cannot be exaggerated. In the post-Cold War era, hardliners in Beijing believe the US has lost some of its *raison d'être* with its loss of the Soviet menace and logic demands it find a new target in the PRC. Western efforts to promote the "peaceful evolution" of China are considered an offshoot of this nefarious plot whose ultimate goal is to prevent China's economic development. China claims that western countries and Japan exaggerate China's schemes to project its power, its military acquisitions from Russia and its alleged dissembling on its military budget. The fact that China actually is doing some of this makes it especially hard for Beijing—the Emperor is, after all, peaceful, as well as infallible.

<sup>47</sup> Interview, Frank Martin, May 22, 1996.

## Corruption

Always a problem in China, this acquires more urgent political significance as one of the leading causes of social unrest and dissatisfaction with the central government since the mid-1980s. It also is closely tied to the associated trends of factionalism and regionalism.

The economic dynamism in East Asia today is counterbalanced somewhat by a level of political fragility. As inevitable generational changes take place throughout the region, placing a greater emphasis on performance rather than personal charisma, trends toward broader economic integration will assume even more importance. Within the Pacific Rim, economics tends to drive international relations and affects domestic and foreign policy choices. This certainly is a factor in Chinese politics. And although market-oriented systems have triumphed virtually everywhere else over socialism, China remains a formidable challenge as a sovereign state that has not totally accepted rules for international economic cooperation and the goal of harmonious coexistence due to its different cultural background, stage of development and basic policies. Economic coordination clearly has been one of the many benefits of southern China's economic integration, however, and, barring any prolonged political upheavals, should continue to serve as a locomotive for China's overall economic development.<sup>48</sup> China, in short, believes the authoritarian model will prevail in the 21st century, and in Asia it has many supporters.

## US INTERESTS IN GREATER CHINA

### ASIAN MODERNIZATION AND THE EMERGENCE OF THE "NEW RICH"

The Chinese diaspora has led to a movement that is both complex and is changing the face of Asia. If the current rate of economic growth in the Pacific Rim continues for the next quarter century, the region's economy will be greater than that of Europe and the Americas combined. The economic success of Greater China is not, as many claim, the result of cheap labor that threatens the livelihood of American workers and manufacturers. Instead, it provides an enormous potential market for our goods and services. To take full advantage of this, US policymakers need to appreciate Asian diversity and recall the political and economic principles that provided the basis for our own success. Overall, American companies are well-positioned to profit from Asia's growing demand for services, and a revitalized Asia is no cause for alarm but rather a chance to promote mutual prosperity. In any event, once economic growth slows down, as it inevitably will, Asian economies will need to adopt more transparent, rule-based systems and institute management and financial controls more consistent with current Western practice.<sup>49</sup>

Asia's dramatic economic development and social changes have resulted in the emergence of the "new rich." This has great appeal to the West in part because a new middle class means massive new markets. But the political implications are less attractive. The

<sup>48</sup> Weidenbaum, *op. cit.*

<sup>49</sup> Jim Rohwer, *Asia Rising*, Simon and Schuster: New York, 1995.

Asian modernization experience has not always placed the characteristics normally associated with a modern economy—such as liberalism, democracy, rule of law and other institutional freedoms—in such a favorable light. The results have been class transformations and political tensions in Singapore, post-colonial political conflict in Hong Kong, the appearance of a fragmented middle class in Taiwan and the disjointed rise of novice entrepreneurs amidst the party-state and a capitalist revolution in China.

As China moves toward a higher level of market economy and global economic integration, it is crucial that the Communist government develop a better understanding of the obligations and benefits of international leadership and the limits these place on choices for domestic policymaking. Both Marxist and Western philosophy agree on one point—a country cannot undergo the kinds of radical economic transformation that China has experienced over the past 15 years without also producing political change. Sooner or later, internal evolution is unavoidable. Rule of law and limited democratization have been inescapable byproducts of economic growth. Although wholesale political freedom on the mainland is not likely, a modest level of political openness is both a probable and logical choice for a regime actively engaged in the international community.

#### \$3 BILLION BRINKMANSHIP

The status of US-China trade is adversely affected by China's ostensible inability to enforce its IPR regulations. In spite of a series of promises to take action, Beijing has not put a stop to intellectual property theft, especially that of CDs and videos in factories throughout southern China. The problem lies reputedly within the Guangdong provincial hierarchy, some of whom have joined forces with criminal elements from Hong Kong and Taiwan. The incentive of huge profit margins derived from this piracy combined with recent trends toward political and economic decentralization have made it difficult for Beijing to find the proper leverage to control this illegal activity. But Shanghai has undertaken to clean up its act on IPR and efforts are being pursued in Guangdong province, proof that China does indeed recognize the economic realities of modernization. These first steps may well lead to a long-term improvement.

US options for responses are more limited than we care to admit. The threat of trade sanctions is a double-edged sword since China has discovered it provides a good way to split American opinion. American business generally will not support sanctions. Companies such as Boeing, for example, see China as the most important market in the world. Many other businesses are relatively unconcerned with IPR because they are too busy catching up with Japan, France and Germany after the lull in US investment following the 1989 events in Tiananmen Square. These investors do not suffer particularly from piracy since they have less interest in intellectual property protection than, for example, Microsoft. Importers and multinationals such as JC Penney, Wal-Mart and even Hallmark, feel the effects of textile sanctions especially deeply. Many of their regional subsidiaries owned by Hong Kong companies have farmed their labor out to Chinese factories. Sanctions would force them to

move offshore to find an alternative manufacturing source, a shift that, while not impossible, would require both time and great expense.<sup>50</sup>

Consistency, toughness and wisdom are more effective in solving IPR contradictions than threats, posturing and paper deals. Though the June 1996 agreement between the U.S. and China advances the process, even USTR Charlene Barshefsky admits there is still a long way to go.

In view of Chinese sensitivities regarding sovereignty, it is evident that neither cooperation nor long-term change in China will be compelled by trade sanctions, loss of MFN or other US efforts at political brinkmanship. Instead, the desire and ability to protect IPR will be the result of gradual Asian development and the leverage gained through sustained investment. Nationalism can have both positive and negative effects, and if the US wants to play a constructive role in China's future, it must identify and utilize the best policy options within its nationalistic parameters.

#### PROSPERITY AND SECURITY ISSUES

The continuing prosperity of the Pacific Rim is based upon the presumption of a benign security environment, a situation which looks more questionable today than it has in the past 25 years. East Asia is the one major region of the world where post-Cold War arms sales are increasing rather than decreasing, and the region is characterized by a number of disturbing trends. US relations with China are in a state of disrepair, and China's economic miracle has been accompanied by a military build-up and a foreign policy assertiveness that are increasingly worrisome to the surrounding countries. America is perceived to be economically weakened, domestically preoccupied and politically obnoxious over economic and human rights issues. US policy in Asia as a whole is perceived to be driven more by internal politics than by any strategic view, and there is a growing suspicion that American "leadership" is a ruse for keeping China and other Asian countries from developing to their full potential.<sup>51</sup>

China's recent military build-up has included modernization of its military and naval potential. The development of a new generation of nuclear submarines, strategic ground-launched and submarine-launched ballistic missiles, jet fighters, destroyers and main battle tanks has buttressed the strength of the country's standing army which includes a force of 3 million. Chinese troops in the Spratlys Islands ejected Filipino fishermen from Mischief Reef in late January 1995, bringing China into a territorial conflict with the Philippines. For years, Beijing and Taipei have asserted Chinese claims to the Spratlys, which are believed to be a repository of oil and gas reserves. China also has run afoul of US interests by selling a nuclear reactor to Iran and nuclear technology to Pakistan, smuggling AK-47s into the US and blocking US efforts to organize UN Security Council sanctions against North Korea.<sup>52</sup> In addition to escalating threats to Taiwan, these are the most re-

<sup>50</sup> Interview, Frank Martin, May 22, 1996.

<sup>51</sup> Peter W. Rodman, "America Adrift: A Strategic Assessment," Nixon Center for Peace and Freedom: Washington, DC, 1996.

<sup>52</sup> Rodman, p. 28 ff.

cent, and potentially most troublesome, political developments which threaten regional security.

#### CHINESE ECONOMIC REFORM

Current Chinese efforts at economic reform focus on the economy's state-owned sector, particularly state-owned enterprises (SOEs), as well as finance, banking and tax structures. Yet the struggle here is far from over since there are reactionary forces that want to keep the state sector dominant. Beijing plans to convert 10,000 large SOEs to business corporations and 70,000 smaller-sized enterprises to collective or private firms. This will relieve the subsidy burden on the state budget, and could contribute to real growth in production and income. Full foreign currency convertibility also will stimulate growth by facilitating repatriation of investment earnings and encouraging financial flows from abroad.

The creation of an effective central bank for China, one that is capable of controlling inflation, transforming national banks into commercially viable financial institutions, and setting up specialized "policy banks" to deal with development, agricultural and export-import business, will promote activity in other priority sectors. The institution will need independence from political pressures to increase the money supply and supervisory powers over the commercial banking system to fight inflation. In addition, new tax codes, commercial codes and civil codes are all part of the necessary legislative framework to bring about market transition.<sup>53</sup> It is precisely here where the U.S. should be ready to assist—to advance the rule of law in China.

The central authority of the Party and the economic planning bureaucracy would like to maintain their reason for being. In a market transformation, however, self-sufficiency and profit-making requirements of enterprises as well as the end of deficit financing, independence of monetary policy and joint ventures for foreign investors all make a socialist market as conceived by traditional party leaders an anachronism China no longer can afford.

#### GREATER CHINA AND THE US

The protection of US interests in the Asia-Pacific Region comes at a price: continued US engagement is the pivotal factor in the region's security equilibrium. The US remains the only power that can provide insurance to each of the major Asian countries against the others. Our role is to provide stability, and insist on non-use of force, and our ability to do so is both an advantage and a responsibility. Perception of an American withdrawal or a policy oblivious to the needs of regional equilibrium inflicts costly and unnecessary political damage that we can and should avoid.<sup>54</sup>

US strategy toward China today is confused and lacks priorities. A sensible strategy requires recognition of the importance of maintaining a high-level strategic dialogue with China to explore common interests and confronting the Chinese systematically with disincentives for troublemaking as well as with incentives for constructive behavior. We also should strengthen our ties with other

<sup>53</sup> Robert Sutter and John Hardt, correspondence, January 1996.

<sup>54</sup> Rodman, *op. cit.*

regional players, especially our allies in Japan, Korea, Australia, Pakistan, ASEAN and India. We cannot, as we have tried, do it alone. We must remain a credible military presence, protecting the sea lanes, projecting our own power, deterring the use of force in regional disputes and earning the trust of our allies. Trade battles actually have worked against us more than China, as in the case of the MFN debate. We should not let the potential for economic hardship in China be laid at our doorstep and become a source of regional anti-Western resentment.<sup>55</sup>

## APPENDICES

### APPENDIX A. Distribution of the Largest 500 Companies Controlled by Overseas Chinese in Asia.

Country/Territory	Number of Companies	Aggregate Market Capitalization * (US\$ billions)	Aggregate Total Assets (US\$ billions)
Hong Kong .....	120	140.51	204.34
Taiwan .....	167	117.17	140.31
Thailand .....	45	63.20	112.10
Malaysia .....	77	63.10	46.10
Singapore .....	44	50.76	96.87
Indonesia .....	33	27.17	35.87
Philippines .....	14	7.37	8.09
Total .....	500	469.28	643.68

\* Market capitalization figures as of 6/30/95.

Source: *Yazhou Zhoukan* (the Chinese language edition of *Asiaweek*) October 22, 1995.

### APPENDIX B. Ethnic Chinese Billionaires in Asia.

Name	Net Worth (US\$ billions)	Business
<b>Indonesia</b>		
Liem Sioe Liong .....	4.6	Salim Group
Eka Tjipta Widjaja .....	3.7	Sinar Mas Group, Bank Internasional Indonesia, China Strategic Investment
Wonowidjojo family .....	3.0	Gudang Garam Cigarettes
Prajogo Pangestu .....	2.0	Barito Pacific Group, Tri Polyta Indonesia
Djuhar Sutanto .....	1.8	Partner of Liem Sioe Liong
Putera Sampoerna .....	1.7	H.M. Sampoerna
Sjamsul Nursalim .....	1.3	Gajah Tunggal Group, Bank Dagang Nasional Indonesia (BDNI)
Sukanto Tanoto .....	1.1	Asia Pacific Resources International Holdings
Mochtar Riady .....	1.1	Lippo Group
R. Budi Hartono .....	1.0	Djarum Cigarettes
<b>Malaysia</b>		
Quek Leng Chan .....	3.9	Malaysian Hong Leong Group

<sup>55</sup> Ibid.

## APPENDIX B. Ethnic Chinese Billionaires in Asia.—Continued

Name	Net Worth (US\$ billions)	Business
Robert Kuok .....	3.5	Pelangi Bhd, Perlis Plant Bhd, Federal Flour Mills Bhd, the Shangri-La Hotel Group in Asia
Tiong Hiew King .....	2.5	Rimbunan Hijau (lumber)
Lim Goh Tong .....	2.1	Genting Berhad, a casino and resort holding company
Yaw Teck Seng .....	1.6	Samling Corp (lumber)
<b>Philippines</b>		
Henry Sy .....	1.9	SM Prime Holdings (shopping malls)
Lucio Tan .....	1.7	Fortune Tobacco, Asia Brewery and Philippine Airlines
George Ty .....	1.4	Metropolitan Bank & Trust
John Gokongwei Jr. ....	1.0	JG Summit Holdings
<b>Thailand</b>		
Dhanin Chearavanont .....	5.5	Charoen Pokphand Group, TelecomAsia
Chatri Sophonpanich .....	3.0	Bangkok Bank Group
Banyong Lamsam .....	2.3	Thai Farmers Bank
Chaijudh Karnasuta .....	2.3	Italthai
Leophairatana family .....	1.5	Thai Petrochemical Industry, Hong Yiah Seng Co., Bangkok Union Insurance
Krit Ratanarak .....	1.4	Bank of Ayudhya, Siam City Cement
Anant Asavabhokhin .....	1.4	Land & Houses
Mongkol Kanjanapas .....	1.1	Bangkok Land
<b>Singapore</b>		
Kwek Leng Beng .....	4.0	Hong Leong Group and City Developments Ltd. founded by Kwek Hong Png
Ng Teng Fong .....	3.5	Far East Organization (Singapore), Tsim Sha Tsui Properties and SinoLand (Hong Kong)
Khoo Teck Puat .....	2.2	Goodwood Park Hotel Group, 15 percent stake in Britain's Standard Chartered Bank
Lee family .....	1.8	Overseas-Chinese Banking Corp, Lee Rubber
Wee Cho Yaw .....	1.0	United Overseas Bank
<b>Hong Kong</b>		
Kwok brothers .....	8.6	Sun Hung Kai Properties Ltd. run by Walter, Thomas and Raymond Kwok
Lee Shau Kee .....	6.5	Henderson Land Development Co.
Li Ka-shing .....	5.9	Cheung Kong Holdings and Hutchison Whampoa
Peter Woo family .....	2.7	Wheelock & Co.
Cheng Yu Tung .....	2.5	New World Development and New World Telephone
Hon Chiu Lee .....	1.4	Hysan Development Co.
Gordon Wu .....	1.2	Hopewell Holdings, Consolidated Electric Power Asia (CEPA)
Lo Ying Shek .....	1.1	Great Eagle Co.
<b>Taiwan</b>		
Tsai Wan Lin family .....	8.5	Cathay Life Insurance Co., Lin Yuan Group, Taiwan First Investment & Trust, Fubon Group



## APPENDIX B. Ethnic Chinese Billionaires in Asia.—Continued

Name	Net Worth (US\$ billions)	Business
Yue-Che Wang family .....	2.0	Formosa Plastics Group
Eugene Wu family .....	1.9	Shin Kong Life Group
Jeffrey Koo family .....	1.5	Chinatrust Commercial Bank and New York-based China Trust Bank
Chang Yung Fa .....	1.3	Evergreen Group and EVA Airways
Huang Shi Hui .....	1.3	Chinfon Group

Source: *Forbes*, July 17, 1995.

## APPENDIX C. Public Opinion on the Future Development of Cross-Strait Relations.

Unit: %

Date of Survey Response	Feb 94 <sup>a</sup>	Apr 94 <sup>a</sup>	Jul 94 <sup>a</sup>	Oct 94 <sup>b</sup>	Feb 95 <sup>b</sup>	Jun 95 <sup>b</sup>	Sep 95 <sup>c</sup>	Nov 95 <sup>a</sup>	Feb 96 <sup>b</sup>
Unification ASAP .....	4.2	2.5	3.5	3.7	3.2	3.4	3.3	1.9	1.8
Status quo leading to unification	23.4	18.3	17.2	18.9	21.4	23.1	24.2	23.9	20.7
Status quo then decide on unifi- cation or independence .....	32.3	43.1	42.2	36.6	34.9	32.4	42.8	32.4	41.2
Status quo indefinitely .....	12.5	12.8	9.9	12.7	21.2	13.8	12.2	12.3	13.9
Status quo leading to independ- ence .....	8.1	8.3	8.4	7.1	7.4	6.7	8.0	10.6	8.5
Independence ASAP .....	4.4	4.0	3.2	4.6	2.4	6.4	3.7	3.4	4.4
Don't Know .....	15.8	11.0	15.6	16.3	9.6	14.2	3.9	15.5	9.2

Source: Surveys conducted by a) Election Study Center, National Chengchi University; b) Burke Marketing Research Ltd., Taipei; c) China Credit Information Service.

# CHINA AND THE WORLD TRADE ORGANIZATION

By George D. Holliday\*

## CONTENTS

	Page
Summary .....	451
Introduction .....	452
GATT/WTO Provisions for Nonmarket and Developing Countries .....	453
Nonmarket Economies .....	453
Developing Countries .....	455
China's Economic Reforms .....	455
The Decline of Central Planning .....	456
New Forms of Ownership and Enterprise Reform .....	456
Openness .....	458
Reforms of the Foreign Sector .....	458
Remaining Trade Barriers .....	460
Is China Open? .....	461
Issues in the Negotiations on China's Accession .....	462
Bilateral and Multilateral Negotiations .....	462
Non-Economic Issues in U.S.-Chinese Negotiations .....	464
China's Reaction .....	466
Differences Among WTO Member Countries .....	466
Implications of China's Accession .....	467

## SUMMARY

The Chinese government has been negotiating since 1986 to accede to the General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO). The GATT/WTO's emphasis on nondiscrimination, national treatment, and reduction of trade barriers implies trade based on market forces, rather than central planning. Consequently, in the past, the centrally planned economic systems of China, the former Soviet Union, and other non-market economy countries have been considered incompatible with the GATT system.

Economic reforms, which began in the late 1970s, have substantially transformed the Chinese economy and contributed to China's emergence as a major economic and trade power. Although significant vestiges of the old system remain, China is in transition away from central planning toward a market-oriented economy. Most important for China's application to the WTO, trade reforms have made the economy more open to foreign trade and investment. China's trading partners continue to complain, however, of major barriers to trade and investment.

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The ambiguous nature of China's "socialist market economy," in which market reforms coexist with continuing heavy government involvement in the economy, raises serious questions about its compatibility with the world trading system. In bilateral and multilateral negotiations, China's trading partners have urged further market reforms and trade liberalization and special safeguards as conditions for Chinese membership in the WTO.

The conditions under which China accedes to the WTO will largely determine the benefits and costs for its economy and the effects on its trading relationships. Generally, WTO membership can be expected to improve access for foreign firms to the Chinese market and reduce barriers to Chinese exports. Such changes would bring both welfare and efficiency gains and adjustment costs for the Chinese and world economies. The adjustment costs could be softened by allowing China temporary exemptions from some WTO rules and allowing China's trading partners to use special safeguards to protect against surges of Chinese exports. Such special transitory rules for China, however, could also limit the gains from trade liberalization.

#### INTRODUCTION

An important goal of the economic reforms that were initiated by the Chinese government in the late 1970s was to open the economy to international trade and investment flows. To further the policy of opening, the Chinese government applied to become a contracting party of the General Agreement on Tariffs and Trade (GATT) in 1986.<sup>1</sup> The Chinese subsequently intensified their efforts to accede to the GATT and to become a founding member of the World Trade Organization, which was established in 1995. Negotiations in the GATT/WTO have progressed much more slowly than anticipated, largely due to the inability of Chinese negotiators to convince other members that the economic reforms have made China's economic system compatible with WTO rules.

China's application has important implications for the Chinese economy. Conforming to multilateral trade rules would expose domestic producers to increased competition, bringing both efficiency gains and adjustment costs. Accession to the WTO would also help to improve access to foreign markets for Chinese exporters. Chinese exports currently face a variety of quotas and other nontariff barriers that could severely limit future expansion. Chinese economic reformers also see membership in the WTO as a way to promote economic reform. The WTO encourages market-oriented reforms and open trade policies. Membership in the WTO also has symbolic importance for China's leaders: it is a sign of recognition of China's growing importance in the world economy.

U.S. firms that trade with China or compete with Chinese producers also have a strong interest in the negotiations over China's accession. Some U.S. producers will benefit as they gain better access to the rapidly growing Chinese market. For others, increased Chinese imports could result in significant adjustment costs. Since

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<sup>1</sup>The Chinese government insists that it is resuming its position as one of the original contracting parties of GATT in 1948. Since China has not actively participated in GATT since 1950, when the Chinese nationalist government withdrew, however, the U.S. Government and other contracting parties are treating China as a new applicant.

China has emerged as one of the United States' largest trading partners, the conditions under which China enters the WTO are of great concern to U.S. trade negotiators and to Members of Congress.

China's application also has important implications for the WTO. China is a major trading country, the eleventh largest, and, by some measures, the world's third largest economy. Its trade has grown at an average annual rate of 16 percent—over twice the rate of world trade—since the late 1980s. Some observers think that it is essential that a truly multilateral trade organization include such a major trading country. At the same time, many trade officials in the member countries believe that China's trade regime, which is still heavily regulated by the central government, is incompatible with the multilateral system. Unless it undertakes major reforms, they maintain, China's membership could undermine the principles which guide the multilateral system. Consequently, the negotiations on China's application, in which U.S. negotiators have played a central role, have been long and difficult. The central issues in the negotiations are the kinds of reforms that China must undertake to make its economy and trading system compatible with WTO rules and what special treatment, if any, other WTO members will accord to China.

This report discusses the compatibility of China's economic system with the GATT, the status of the ongoing negotiations on accession, and the possible effects of China's membership in the WTO.

#### GATT/WTO PROVISIONS FOR NONMARKET AND DEVELOPING COUNTRIES

Since 1948, GATT and the WTO have provided a framework of principles guiding the conduct of international trade and a forum for negotiating trade disputes. Central features of the framework are nondiscriminatory trade treatment; reliance on tariffs, rather than nontariff barriers when it is necessary to protect domestic producers; adherence to negotiated tariff rates at fixed maximum levels; and settlement of disputes through consultation and conciliation. GATT/WTO has promoted a reduction of trade barriers through eight rounds of negotiations that have reduced tariffs and established rules that discourage nontariff barriers. The most recent round of negotiations, the Uruguay Round, includes a significant reduction in tariffs, new rules that provide greater discipline to nontariff barriers, extension of trade rules to new areas such as services and agriculture, and the establishment of the World Trade Organization.

#### NONMARKET ECONOMIES

GATT/WTO's emphasis on nondiscrimination, tariffs, and reduction of trade barriers implies trade based on market forces, rather than central planning. That is, GATT/WTO rules apply primarily to market economies, in which decisions about the allocation of resources and production are made on the basis of market prices. Market prices are determined in voluntary exchanges between producers, consumers, workers, and owners of land and capital. A

market economy exists when economic decisions are made independently by individuals in the economy, not by central planners in the government. Consequently, in the past, the centrally planned economic systems of China, the former Soviet Union, and other non-market economy countries have been considered incompatible with GATT/WTO.

For example, GATT/WTO rules encourage tariffs in preference to other trade barriers, because tariffs, even though they restrict trade, allow market prices to work. Foreign firms, if they are efficient enough, can still compete with domestic firms despite tariffs. Tariffs are also transparent: the degree of protection that they provide is readily apparent to foreign firms and governments. Consequently, it is relatively easy to negotiate tariff reductions on a balanced, reciprocal basis and to ensure compliance with agreements. In fact, the greatest achievement of successive rounds of GATT negotiations has been a dramatic reduction of tariffs among member countries.

Although China and other nonmarket economy countries have had official tariff systems, tariffs had little practical role in regulating trade. Imports were determined by the plan: without the approval of central authorities, foreign firms had no access to their markets. Thus, negotiating reciprocal reductions of tariffs would have insignificant effects on the level of imports.

Similarly, the GATT/WTO principle of non-discrimination was alien to central planning. The state's total monopoly of foreign trade fostered politically motivated, preferential trade agreements, rather than market-oriented trade. Although the GATT/WTO includes provisions regulating state trading, the provisions pertain primarily to state-owned firms in mainly market economies. It requires that such firms make import and export decisions on commercial, not political criteria. Under central planning, however, state-owned enterprises had little incentive to conduct foreign trade operations on a commercial basis.

There are many other problems in applying GATT/WTO rules to centrally planned foreign trade. The GATT/WTO, for example, discourages dumping (selling at a price below the fair value of the product) and subsidies (providing special benefits to exports), and allows members to take countermeasures against such practices. The absence of market prices in nonmarket economies, however, makes it difficult to determine the existence of dumping or subsidization. Likewise, GATT/WTO codes stress transparency in establishing procedures for setting standards, customs valuation, government procurement, and other government actions that influence trade flows. Highly secretive centrally planned systems do not meet the multilateral system's standards of openness.

In the past, the GATT used two kinds of arrangements to approve applications from nonmarket economy countries. Poland, in 1967, and Romania, in 1971, attained membership after making commitments to increase imports from member countries by specified amounts. Other member countries reserved the right to protect their economies with quantitative restrictions against surges of imports from the two countries that disrupted domestic markets. Another nonmarket economy, Hungary (in 1973) attained membership after making commitments to fundamental economic reforms that

would transform it to a market economy. Neither approach to GATT membership was totally satisfactory. Poland and Romania had difficulty in meeting their commitments to increase imports, and Hungary's reforms, until the 1990s, were widely regarded as insufficient to become fully compatible with the GATT.<sup>2</sup>

#### DEVELOPING COUNTRIES

The Chinese government, in its negotiations on accession, has insisted that China is a developing country which is entitled to the same special treatment that other developing countries receive in the GATT/WTO. In the past, GATT has allowed exceptions to its rules, permitting developing countries to maintain high tariffs and quantitative restrictions on imports to support development objectives, or to overcome balance of payments problems. It has also allowed member countries to extend "differential and more favorable" tariff treatment (such as the generalized system of preferences) to the developing countries.<sup>3</sup> In short, GATT's treatment of developing countries has been an important exception to its general requirement for non-discriminatory trade policies.

The Uruguay Round Agreements, completed in 1993, generally require developing countries to undertake substantial new trade obligations that they had not accepted in previous rounds. They are required, for example, to adhere to several codes that set rules on matters such as customs valuation, import licensing, dumping, and subsidies, and to bind their tariff concessions, albeit at much higher levels than developed countries. (When tariff concessions are bound, they cannot be rescinded without compensating the affected trade partners.)

Nevertheless, developing countries retain the special treatment that they had previously been accorded with respect to quantitative import restrictions and preferential tariff treatment. They were also given special exemptions and extended transition periods to phase in some of the Uruguay Round provisions. They are exempted, for example, from many requirements to liberalize agricultural import regimes. They are allowed to retain certain subsidies during a transition period. They are also given extended transition periods to phase in provisions for protection of intellectual property rights and to phase out prohibited trade-related investment measures.

#### CHINA'S ECONOMIC REFORMS

If China remained a strictly centrally planned economy, serious negotiations on its accession to the WTO would probably not be taking place. The economic reforms that began in the late 1970s, however, have substantially transformed the Chinese economy. Although significant vestiges of the old system remain, China is in transition away from central planning toward a market-oriented economy. Chinese officials characterize their system as a "socialist market economy," denoting that free market principles will coexist with predominately socialist ownership of the means of production.

<sup>2</sup> John H. Jackson, *The World Trading System: Law and Policy of International Economic Relations*, Cambridge: The MIT Press, 1989, p. 286; and Blanka Kalinova and John A. Martens, *Integrating Emerging Market Economies into the International Trading System*, Paris, Organization for Economic Cooperation and Development, 1994, pp. 52-53.

<sup>3</sup> John H. Jackson, *The World Trading System*, pp. 275-281.

The market reforms have boosted China's chances of acceding to the WTO. Serious questions about the nature and timing of further reforms, however, remain a stumbling block to agreement in the negotiations. Three aspects of the reforms—the reduced role of central planning; new forms of ownership and enterprise reform; and openness—illustrate some of the ambiguities of the concept of a socialist market economy, which continue to raise doubts about the compatibility of China's economy with the multilateral trading system.<sup>4</sup>

#### THE DECLINE OF CENTRAL PLANNING

The essence of China's economic reforms has been the reduction of the role of central planning and increased reliance on market-determined prices to allocate resources. Before the reforms, the central government maintained strict control over the level and composition of investment, the allocation of key raw materials, and the prices and assortment of goods produced by farms and industrial enterprises. Central planners financed investments through budgetary allocations and centrally directed bank loans, allocated raw materials through the Government's material supply system, and controlled output through rigid, mandatory plans for state- or collectively owned farms and enterprises.

The reforms have resulted in the progressive decentralization of economic decision-making. Fewer investment decisions are made by central planners, and more are made by local governments and enterprises. The allocation of inputs and decisions about what to produce are increasingly made on the basis of market prices. Price reforms have sharply reduced the number of prices that are fixed by central planners. By 1993, market prices reportedly accounted for 95 percent of total retail sales, 85 percent of capital goods and materials, and 90 percent of agricultural products.<sup>5</sup>

China's transition from central planning toward the market is far from complete, however. Some key manufacturing projects, for example, are still financed by the state. More important, investments that are financed through Chinese bank loans are frequently made, not on the basis of commercial considerations, but in response to local political pressures.<sup>6</sup> Also, while the reforms have allowed a greater role for market prices, the government continues to play a role: some prices are still fixed by the government, and others are determined by a combination of administrative and market forces.

#### NEW FORMS OF OWNERSHIP AND ENTERPRISE REFORM

The Chinese reforms have not emphasized widespread privatization, as have some other countries in transition away from central planning. Instead the government has chosen to maintain predominantly socialist ownership of factories. While some privately owned enterprises have been allowed, particularly in the service sector,

<sup>4</sup>This discussion of Chinese economic reforms draws heavily on two sources: Michael W. Bell, Hoe Ee Khor, and Kalpana Kochhar, *China at the Threshold of a Market Economy*, Washington, International Monetary Fund, Occasional Paper 107, September 1993; and Nicholas R. Lardy, *China in the World Economy*, Washington, Institute for International Economics, April 1994.

<sup>5</sup>Lili Liu, "A Gradual Approach," *The China Business Review*, May-June 1996, p. 20.

<sup>6</sup>Lardy, *China in the World Economy*, p. 13-14.

the vast majority of industrial enterprises and most farm land are owned either by the state or by collectives. There have been significant changes, however, in the way enterprises are controlled and managed.

Under central planning, state-owned enterprises—those that are under the direct authority of the central government or of the provincial governments—produced most industrial output. They continue to account for a large, but steadily declining share, of industrial production: according to official Chinese statistics, their share dropped from 80 percent in 1978 and to less than 40 percent in 1992.<sup>7</sup> Although about two-thirds of the state-owned enterprises are either making no profits or losing money, the central government is reluctant to allow bankruptcies because of fear that unemployment may lead to unrest.<sup>8</sup> Consequently, they are supported with subsidies from the state budget and through soft loans (many of which are unlikely to be repaid) from state-owned banks.

Recent reforms are aimed at encouraging state-owned enterprises to operate on a commercial basis. The State Council in July 1992 issued regulations to give these firms greater autonomy over their personnel, pricing, and marketing decisions. The government, however, continues to play an active role in setting priorities for investment. The central government has also permitted experiments in new forms of corporate ownership, under which state owned-enterprises issue stock, but government entities hold majority ownership.

Much of the declining share of state-owned enterprises is now produced by urban and rural collectives, which are affiliated with local governments, villages, or neighborhoods. Although they are regarded as publicly owned, they operate largely in a market environment. They are free to produce what they want and to sell their products without interference from the central government. They are not managed by, and do not report to, the state industrial ministries.<sup>9</sup> In 1992, collectives accounted for 38 percent of Chinese industrial output.

Two other categories of ownership—"individually owned" and "enterprises of other economic forms"—are officially regarded in China as the private sector. Each accounts for about 7 percent of China's industrial output. Individually owned enterprises refer to those that are owned by an individual and have no more than seven employees. Enterprises of other economic forms include individually owned enterprises with more than seven employees, foreign enterprises and joint ventures.

Land continues to be collectively owned. The reforms of the late 1970s, however, made fundamental changes in the way Chinese farms are managed. The communes which previously controlled farm land, equipment, and supplies, and had responsibility for all production decisions were dissolved, and farm land was distributed to individual households, which assumed responsibility for production decisions. Farmers remit part of their crops, in accordance

<sup>7</sup>Lili Liu, p. 22.

<sup>8</sup>U.S. Congress. Senate Committees on Foreign Relations and Finance and House Committees on Foreign Affairs and Ways and Means. *Country Reports on Economic Policy and Trade Practices*. Joint Committee Print, S. Prt. 103-68. 103d Congress, 2d session. Washington, 1994, p. 44.

<sup>9</sup>Bell, Khor, and Kochhar, *China at the Threshold*, p. 13.



with contracts negotiated with local authorities, in return for use of the land.

Despite increased reliance on market forces to determine the price of many products, the predominance of public ownership in China limits the influence of the market in determining prices for inputs—land, labor, and capital. While wages appear to be determined by market forces in rural, small-scale industries, the central government largely sets wage rates for the state-owned sector. Market forces play a relatively small role in allocating land and financial capital.<sup>10</sup> The absence of developed markets for inputs means that the real costs of production often are not fully reflected in the prices for final goods and services.

#### OPENNESS

A key to China's entry into the WTO is the Chinese government's ability to convince current WTO members that its economy is open to foreign trade and investment. Chinese officials frequently point to legal and institutional changes and to the growing importance of the foreign sector of the economy as evidence that their system is open. In fact, the situation is complex: China has fundamentally changed its foreign trade regime, but the central and provincial governments maintain significant levers to influence trade and investment flows.

#### *Reforms of the Foreign Sector*

Since the late 1970s, China's foreign trade regime has been transformed from a highly centralized, centrally planned monopoly to a system that more closely resembles the trading rules of market economies. By 1989, the 12 state-owned foreign trade corporations that formerly monopolized trade transactions were given greater autonomy, and about 4,000 local branches had become independent entities responsible to local governments. Some other enterprises were authorized to trade on their own account. The state sharply reduced mandatory planning of imports and exports.

China currently has a managed official exchange rate which is nominally pegged to a trade-weighted basket of currencies. Chinese officials have indicated that their goal is to have a fully convertible currency within several years. The government took a step in that direction on January 1, 1994, when it eliminated its dual exchange rate system. (It unified its official rate with the market-related rate offered at foreign exchange centers.) The Government has also gradually relaxed its controls over foreign exchange, allowing domestic enterprises to retain rights to part of their foreign exchange earnings and to purchase foreign exchange subject to state approval. On April 1, 1994, it announced reforms that would provide easier access for domestic enterprises to foreign exchange.

Some observers think that China has virtually achieved current account convertibility—that is, individuals can generally exchange the yuan to buy goods and services, make interest payments, or repatriate profits from foreign investments in China. China's weak financial system and concerns about capital flight, however, make it

<sup>10</sup> Lardy, pp. 11–14.

unlikely that citizens will soon be able to exchange their currency freely to buy and sell assets.<sup>11</sup>

Before the reforms, the Chinese government was openly hostile to foreign investment. Although it continues to limit the role of foreign investment, the Chinese government allows, and sometimes encourages, foreigners to invest in selected parts of the economy. In particular, the government has given preferential treatment (primarily tax incentives) to foreign firms that invest in special economic zones and to firms that generate new exports. The special economic zones, where most foreign investment exists, have served not only to increase foreign investment, but to experiment with market-oriented reforms.

In 1991, the Chinese government, stimulated in part by its application to GATT and in part by bilateral negotiations with the United States, began to carry out new trade reforms. It ended direct subsidies to foreign trade corporations, reduced import duties, and adopted the harmonized system for customs classification and statistics. In response to U.S. complaints, the Chinese government signed agreements with the United States in 1992 and 1995 pledging to strengthen its protection of intellectual property rights.

In another agreement with the United States, the Memorandum of Understanding (MOU) on Market Access, signed on October 10, 1992, the Chinese government committed itself to implementing a number of further reforms to eliminate many barriers to imports. Specifically, it agreed to eliminate approximately 75 percent of all import licensing requirements, quotas, and other restrictions by the end of 1994, and 90 percent by the end of 1997. The Chinese government also agreed to make its system more transparent by publishing trade laws and regulations and to establish a working group to revise unscientifically based standards and certification which restricted imports. In return, the U.S. government made a commitment to reduce export controls on computers and telecommunications equipment and to "staunchly support" China's membership in the GATT.<sup>12</sup>

The Chinese government has followed through on some of its commitments. It lowered tariffs on nearly 3,000 items at the end of 1993 and eliminated quotas and licenses for over 200 products in June 1994. In May 1994, the government attempted to improve the transparency of its trade regime by publishing a comprehensive new foreign trade law.<sup>13</sup> The law includes provisions that restrictions on imports and exports must conform to GATT rules and that subsidies to China's foreign trade companies must be ended.

In late 1995, the government announced a series of new trade and investment reforms to comply with the 1994 MOU and to further its application to the WTO. It announced that tariffs on about 4,000 commodity lines would fall in 1996 by at least 30 percent and that 176 non-tariff measures would be eliminated. Among the non-tariff measures to be eliminated were import licenses, quotas, and

<sup>11</sup> Nicholas R. Lardy, "Settling Down," *The China Business Review*, May-June 1996, p. 8.

<sup>12</sup> Memorandum of Understanding Between the Government of the United States and the People's Republic of China Concerning Market Access, October 10, 1992, reprinted in *Inside U.S. Trade*, October 16, 1992, pp. S6-S10.

<sup>13</sup> U.S. Central Intelligence Agency, *China's Economy in 1993 and 1994: The Search for a Soft Landing*, Report submitted to the U.S. Congress, Joint Economic Committee, Subcommittee on Technology and National Security, July 22, 1994, p.10.

certification requirements for a number of commodities. According to one analysis, the tariff reductions would bring China's simple average tariff rate down from 36 percent in 1995 to 23 percent.<sup>14</sup>

### *Remaining Trade Barriers*

Even after the recent reforms, China maintains significant barriers to trade. For example, while the May 1994 law stipulates that direct subsidies for exports must end, indirect subsidies, such as low-cost inputs, preferential bank loans, and tax incentives, continue. The law also provides for continued protection for China's service sector and stipulates that China can restrict imports if it experiences balance of payments difficulties. It also maintains many restrictions on foreign investment: it does not allow foreign investments in many areas of the economy and allows other investments only with rigid performance requirements such as stipulations that foreign investors must transfer technology or export a share of their output.

Many other Chinese practices have generated frictions with the United States and other trading partners. Despite the U.S.-Chinese agreements on intellectual property rights, for example, the U.S. Trade Representative designated China in 1994 and 1996 as a "priority foreign country," under the "Special 301" provision of the Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418), because of its failure to abide by its trade agreements.<sup>15</sup> In a 1996 report on foreign trade barriers, the U.S. Trade Representative identified a number of other Chinese nontariff barriers to trade, including restrictions on the types and numbers of Chinese firms that are given trading rights, non-scientific standards and certification requirements, and discriminatory government procurement practices.<sup>16</sup> An official Japanese survey of major trade barriers listed similar Chinese practices.<sup>17</sup> Even after the 1995 reforms China maintains very high tariffs, quotas, and import licensing requirements for many products.

Moreover, China's movement away from central controls has not always meant a more open trading system. In some cases, local protectionism has replaced national protectionism. Exporters to China have complained that customs procedures (such as valuation of imports) and other trade regulations are applied inconsistently in different parts of China. Decentralization of authority has also made it difficult to enforce some laws that are aimed at liberalizing the system.

Underlying many of China's trade barriers is a long-standing policy of import substitution—prohibiting imports because similar products are produced domestically or actively promoting domestic sources to replace imports. With the trade reforms of the early 1990s, the Chinese government stated that it had eliminated all regulations, guidance, and policies that promote import substi-

<sup>14</sup> Meredith Gavin and Kirsten A. Sylvester, "Tumbling Tariffs," *The China Business Review*, May-June 1996, pp. 44-48.

<sup>15</sup> See Wayne M. Morrison, *China-U.S. Trade Issues*, for further discussion.

<sup>16</sup> U.S. Trade Representative, *Foreign Trade Barriers*, Washington, 1996, pp. 45-61.

<sup>17</sup> Industrial Structure Council, World Trade Organization Committee, Subcommittee on Unfair Trade Policies and Measures. *1995 Report on the WTO Consistency of Trade Policies by Major Trading Partners*. Tokyo, 1995. (The Industrial Structure Council is an official advisory body to the Minister of International Trade and Industry.)

tution. Nevertheless, the government continues to promote industrial policies that imply import substitution. In July 1994, for example, the State Planning Commission issued a statement on industrial policy for the automotive industry, which included "import management measures" for the industry.<sup>18</sup> According to the statement, automobile imports must be in keeping with the state automotive production plan and must be approved in advance by the State Council. The statement also outlined provisions for preferential loans for state-supported enterprises, performance requirements for new joint ventures, and preferential tariff treatment for enterprises meeting certain local content requirements.

Chinese officials have indicated that similar policies are being developed for other "pillar" industries, such as telecommunications and heavy industrial equipment.<sup>19</sup> They maintain that such programs are a part of China's industrial policy and are not related to its application to GATT. Many trade officials in other countries disagree. A WTO paper, prepared in response to a request from the Chinese delegation to the working party on accession, suggested that industrial policies in China and other countries could violate the basic principles of most-favored-nation and national treatment and other provisions of the GATT and Uruguay Round Agreements. The paper cited provisions on subsidies, services, trade-related investment matters, quantitative restrictions, and other matters that limit the kinds of industrial policies that members may use.<sup>20</sup>

### *Is China Open?*

Despite the remaining barriers to trade, the policy of opening has already had a pronounced effect on China's foreign economic relations. Foreign trade turnover is now estimated at between 18 and 26 percent of China's gross domestic product—probably twice the share in 1978.<sup>21</sup> (The comparable figure for the United States is 16 percent.) Foreign investment in China, virtually nonexistent before the reforms, now plays a rapidly growing role in China's economy. In 1994 and 1995, China was the second largest destination (after the United States) for foreign direct investment. Still, many foreign exporters and governments claim that the Chinese market is difficult to enter. Many question whether China is an open economy.

Perhaps the best indicator of China's openness is whether it is trading in accordance with its comparative advantage—that is, whether decisions to import or export are based on market prices that reflect relative costs of production in China and its trading partners. Openness implies that a country exports products that it produces relatively efficiently and imports products that are produced relatively efficiently abroad.

The evidence for China is mixed. A World Bank study concluded that the structure of China's exports increasingly reflects its com-

<sup>18</sup> The statement was published in *People's Daily*, July 3, 1994, and translated by the American Embassy in Beijing. See also U.S. Central Intelligence Agency, Directorate of Intelligence, *China's Economy in 1994 and 1995: Overheating Pressures Recede, Tough Choices Remain*, Washington, December 1995, p. 10.

<sup>19</sup> *Inside U.S. Trade*, August 5, 1994, pp. 1, 13–14.

<sup>20</sup> The WTO paper on industrial policy is reprinted in "Special Report: WTO Paper Suggests Industrial Policies May Violate Key Trade Rules," *Inside U.S. Trade*, April 5, 1996, pp. S1–S20.

<sup>21</sup> World Bank, *China: Foreign Trade Reform*, Washington, 1994, p. 20. The percentage depends on which estimate of China's GDP is used.

parative advantage.<sup>22</sup> As China's reforms have proceeded, its exports have become increasingly labor-intensive. Thus, the share of clothing, footwear, toys, and sporting goods, travel goods, and items that require simple assembly operations, has increased. In fact, China has begun to specialize so heavily in such exports, that foreign competitors have increasingly lobbied their governments for import relief against an assortment of Chinese products. At the same time, capital-intensive exports (many of which were subsidized under the old central planning system) have decreased. Thus, Chinese exports appear to be driven increasingly by market forces.

China's imports, on the other hand, show a different pattern. Government planning and administrative controls continue to influence the structure of imports. The government appears to encourage imports used in the production of exports, and restrict imports of certain nonessential goods. For example, capital goods, such as machinery and transportation equipment, account for a steadily increasing share of Chinese imports. The share of food imports has declined as the government has striven to avoid dependency on foreign suppliers for basic foods, and the share of imports of consumer goods has remained inconsequential. The World Bank study suggests that the pattern of China's imports is not an accurate reflection of its comparative advantage.<sup>23</sup>

#### ISSUES IN THE NEGOTIATIONS ON CHINA'S ACCESSION

The ambiguous nature of China's socialist market economy, in which market reforms coexist with continuing heavy government involvement in the economy, raises serious questions about its compatibility with the world trading system. Is it truly a market economy? Are exports and import-competing products fairly priced, or do they reflect government controls and subsidies? Is the Chinese economy open to foreign companies, or do the central and local governments maintain an inordinate level of protection? What kind of further reforms are planned, and when will they take place? Such questions have been the focus of negotiations, at both the bilateral and multilateral levels, on China's accession to the WTO.

#### BILATERAL AND MULTILATERAL NEGOTIATIONS

The U.S. government has played a leading role in pressing China to reform its economy further before accession to the WTO. In U.S.-Chinese bilateral talks in March 1993, for example, U.S. negotiators spelled out five conditions that China must meet to gain U.S. support for its application:<sup>24</sup>

- A single national trade policy common to all provinces and regions of the country;
- Full transparency of trade regulations;
- Continuing gradual removal of nontariff import barriers;
- A commitment to move to a full market economy;

<sup>22</sup> World Bank, *China: Foreign Trade Reform*, pp. 150-166.

<sup>23</sup> *Ibid.*, pp. 15-19.

<sup>24</sup> U.S. International Trade Commission, *The Year in Trade 1992: Operation of the Trade Agreements Program*. 44th Report. USITC Publication 2640. July 1993, p. 85.

- Acceptance of a safeguard system to protect GATT member countries from possible surges in Chinese exports until the transition to a market economy is completed.

The first four conditions call for continuation and deepening of the market reforms and further trade liberalization measures. The fifth calls for China to accept restrictions by its trading partners when surges of exports threaten serious injury to their domestic producers.

In effect, the last condition assumes that the reforms and market opening measures will not occur immediately and that China's trading partners will need special measures to protect their domestic producers from Chinese exports. GATT Article XIX, as amended by the Uruguay Round's Agreement on Safeguards, already provides for safeguards (temporary import restraints to protect domestic industries that are seriously injured by fairly priced imports). Article XIX generally requires that safeguards be applied on a most-favored-nation basis—that is, that it be applied to all countries exporting the product. The Safeguards Agreement of the Uruguay Round, however, amended the MFN requirement to allow selective safeguards if imports from certain countries have increased in disproportionate percentages. The amendment appears to have been aimed at countries like China that are now emerging as major exporters.<sup>25</sup> U.S. negotiators (and negotiators from other trading partners) are pressuring China to accept selective safeguards—safeguards that would be applied only to China and not to other exporters of a given product. The negotiators are proposing both product-specific safeguards (import restraints to protect against surges of specific products) and general safeguards (suspension of the application of any concessions or obligations under the protocol).

The WTO working party on China's accession, which includes U.S. negotiators, has elaborated and added to the U.S. conditions. The chairman of the group prepared a report for negotiations in June 1994 that listed the conditions for China's accession that had been proposed by all concerned parties. Like the U.S. conditions, the conditions spelled out in the GATT report related to selective safeguards, trade liberalization, and domestic market reforms. Many of the conditions in the working party's report subsequently formed the basis for a draft protocol on accession.<sup>26</sup>

The report included stipulations that China conform with general GATT principles, such as national treatment, and that it accept rules negotiated in the Uruguay Round for new areas, such as market access in the service and agriculture sectors, protection of intellectual property rights, and trade-related investment measures. It also called on China to adhere to two of the GATT codes—the Agreement on Trade in Civil Aircraft and the Government Procure-

<sup>25</sup> George D. Holliday, "The Uruguay Round's Agreement on Safeguards," *Journal of World Trade*, v. 29, no. 3, June 1995, p. 159.

<sup>26</sup> The report was reproduced in *Inside U.S. Trade*, "Special Report: GATT Working Party on China Focuses on Members' List of Demands," July 1, 1994, pp. S2-S8. GATT officials called the report a "non-paper," which they characterized it as a compilation of issues raised by various member countries. The draft protocol was subsequently printed in *Inside U.S. Trade*, "Special Report: Confidential Draft Protocol Proposes Unlimited China Safeguard," January 27, 1995, pp. S1-S12.

ment Agreement—which many members of the WTO are not required to sign.<sup>27</sup>

A number of conditions compiled by the GATT working party related to specific features of the Chinese economy. Like U.S. negotiators in bilateral negotiations, the GATT report addressed issues related to uniform administration of China's trade regime, transparency, and non-tariff trade barriers. Other issues in the GATT report related to the vestiges of central planning in China: trading rights and enterprise autonomy; foreign exchange restrictions; state trading; elimination of price controls; economic reforms; and special problems in determining dumping and subsidies.

The report did not explicitly address the question of whether or not China is a developing country. It implied, however, that, on many questions, China should be treated as a developed country. It stipulated, for example, that China should not avail itself of any transitional arrangements for implementing new GATT/WTO disciplines on intellectual property rights. It also put strict limitations on China's use of measures to redress balance of payments problems.

In November 1995, U.S. negotiators gave their Chinese counterparts a "roadmap" that identified areas where substantial disagreements over Chinese accession remained and ways in which the Chinese government could satisfy the conditions laid down by the WTO working party. Among the key issues identified by the document were liberalization of trading rights for Chinese firms, more rapid elimination of nontariff barriers, reduction of price controls, phasing out of export subsidies, and acceptance of safeguards.<sup>28</sup>

#### NON-ECONOMIC ISSUES IN U.S.-CHINESE NEGOTIATIONS

In both U.S. bilateral negotiations with China and in WTO working party negotiations, all the conditions that have been discussed for China's accession relate to economic issues. Other U.S. bilateral trade negotiations with China have frequently linked trade and political issues, such as the linkage between extension of MFN status and China's human rights policies. Although some observers have suggested a similar conditioning of China's accession to GATT on its human rights policies, the negotiations have not explicitly addressed such political issues. Members of Congress have differed on this question. Some have urged a policy of linkage, while others have urged that China's accession be linked only to economic and trade reforms.<sup>29</sup>

U.S. trade policy toward China will likely continue to be linked to its human rights policies, however, whether or not China becomes a member of the WTO. Under the Jackson-Vanik Amendment of the Trade Act of 1974 (P.L. 93-618), U.S. extension of MFN status to China is conditioned on Chinese emigration policy.

<sup>27</sup> All of the codes were, until the Uruguay Round was implemented, plurilateral agreements. That is, members of GATT were not required to adhere to them. With the implementation of the Uruguay Round, only four of the codes—the agreements on Civil Aviation, Government Procurement, Bovine Meat, and Dairy Products—remain plurilateral. Thus, China may be required to adhere to two codes that many WTO members do not adhere to.

<sup>28</sup> "U.S. Map Puts China on Road to WTO," *Financial Times*, December 7, 1995.

<sup>29</sup> In a letter to U.S. Trade Representative Mickey Kantor, for example, the chairmen and ranking Republican members of the House Ways and Means Committee and the Subcommittee on Trade, urged that China's entry be conditioned on trade and economic reforms. The letter is reprinted in *Inside U.S. Trade*, April 15, 1994, p. 16.

Although membership in the WTO generally requires unconditional MFN treatment, Article XII of the WTO Agreement allows non-application of the GATT and the Uruguay Round agreements to countries that are not "original members."<sup>30</sup> Under current U.S. law, the U.S. government must continue to condition the extension of MFN status to China on the emigration provisions of the Jackson-Vanik Amendment.

The negotiations on China's accession to the WTO are related to another important bilateral political issue—U.S. policy toward Taiwan. Since 1992, a GATT/WTO working party has been considering a concurrent application from Taiwan for accession. The Chinese leadership in Beijing is concerned about the efforts of the nationalist government in Taiwan to enhance its international identity and prestige by joining multilateral organizations like the WTO.<sup>31</sup> The Chinese government has insisted that China must be admitted first, and that Taiwan could then be admitted as an autonomous customs territory of China. Like the question of China's human rights policies, the issue of Taiwan is not an explicit part of U.S.-Chinese negotiations on accession. The decision on when to approve accession protocols for China and Taiwan, however, is a sensitive issue for U.S. policymakers.

Despite the negotiators' emphasis on economic issues, some observers perceive the WTO accession process to be too political. The perception arises from the lengthy and contentious nature of the bilateral negotiations and from the frequent sparring between U.S. and Chinese negotiators over the conditions that China must meet for membership. Chinese negotiators have frequently labelled the U.S. government as the major obstacle to China's accession, sometimes suggesting that the U.S. position was based on domestic political considerations. U.S. negotiators, on the other hand, maintain that their objections to Chinese membership are based on technical and commercial, not political, considerations.<sup>32</sup> They insist that the Chinese government can gain U.S. support for membership by complying with past trade agreements and making firm commitments to abide by WTO rules.

Although bilateral negotiations can sometimes be more contentious than the multilateral negotiations in the WTO working parties, WTO members have found that they play an important and distinct role in the accession process. The working parties focus on the general rules and principles of the applicant's protocol: they seek to ensure that the applicant will accept the normal obligations and responsibilities of WTO membership. The bilateral meetings, on the other hand, focus on the schedules of tariff concessions and other market access issues that will govern bilateral trade relations after the applicant becomes a member. Thus, in addition to numerous formal meetings with the WTO working party, China has con-

<sup>30</sup> President of the United States. Communication to the Speaker of the U.S. House of Representatives and the President of the Senate. Attachment, pp. 27-8.

<sup>31</sup> For further discussion, see Robert G. Sutter, *Taiwan: Recent Developments and U.S. Policy Choices*, CRS Issue Brief IB94006, updated continually.

<sup>32</sup> See, for example, the response by Assistant U.S. Trade Representative Dorothy Dwozkin to Chinese suggestions that the U.S. position was based on political considerations. "Obstacles to China's Membership in WTO 'Technical,' not Political, Aide Says," *International Trade Reporter*, April 3, 1996, pp. 574-575.



ducted bilateral negotiations with over 20 of its major trading partners to discuss specific questions about market access.

#### CHINA'S REACTION

Chinese negotiators have taken issue with many of the conditions proposed by the United States and other trading partners. They emphasize the extent to which China has already reformed its economy and liberalized its foreign trade regime. The reforms, they say, will continue, but will take time. Consequently, Chinese negotiators argue that China deserves a longer transition period to conform fully with WTO rules. They claim, for example, that it is impossible for China to meet immediately the conditions for national treatment, protection of intellectual property rights, or trade-related investment measures.

China's argument for longer transition periods to conform with WTO rules is based in part on its claims to be a developing country. Although the WTO provides for differential treatment of developing countries, there is no official definition of a developing country. Estimates for China's per capita gross domestic product—one indicator of whether a country is developed or developing—vary widely. The World Bank estimates that per capita GDP in 1994, based on the official exchange rate, was \$530. Estimates based on purchasing power parity give a more realistic picture: by this measure, the World Bank estimates Chinese per capita GDP in 1994 was \$2510.<sup>33</sup> By the former measure, China would be defined by the World Bank as a low-income country; by the latter, it would be defined as a lower-middle-income country. Since both categories include mostly countries that are generally considered developing, China's contention that it is a developing country appears well founded. Consequently, Chinese negotiators maintain that it must continue to protect some less developed parts of its economy, such as services and agriculture, for an extended period.

Chinese negotiators have complained that some of the proposed conditions for its accession to the WTO are discriminatory. They note, for example, that the proposed requirement that China sign the plurilateral codes is unique; no other country is required to sign the Agreements on Civil Aviation and Government Procurement. Similarly, they maintain, the proposed conditions that China carry out certain domestic reforms, such as ending price controls, go beyond GATT/WTO requirements for other countries. Chinese negotiators have been especially critical of the proposed application of selective safeguards to China: they consider the proposal inconsistent with the principle of nondiscrimination. In response to pressures from its major trading partners, the Chinese have agreed in principle to such safeguards, but want to negotiate strict limits on when and how long they can be used.

#### DIFFERENCES AMONG WTO MEMBER COUNTRIES

Some differences of emphasis have emerged among China's trading partners about the kind of protocol of accession that should be

<sup>33</sup> Purchasing power parities are foreign exchange rates used to convert foreign economic data to U.S. dollars that reflect relative price differences in the two countries. Data from The World Bank, *The World Bank Atlas, 1996*, Washington, 1996, pp. 18-19.

required for China. Most important, there is disagreement about whether the protocol should emphasize the need for further market reforms or the need for liberal safeguard provisions. Most WTO members agree that there is a need for both, but they attach different priorities to them. U.S. officials, for example, have proposed more rigorous conditions on market reforms; they have pressed for additional Chinese reforms now and a specific timetable for future reforms. They argue that current WTO members now have maximum leverage to pressure China to undertake further reforms, and that such reforms will reduce the number of trade disputes with China in the future. European Union officials, on the other hand, have put less emphasis on reforms and more on liberal safeguards that will facilitate restrictions on imports from China that threaten European producers. They are apparently convinced that it is important that China accede soon to ensure a continuation of economic reform and market opening in China. European Union officials have insisted, however, that current members must have the means to protect their domestic markets against surges of imports from China.

There are also different responses to China's demand for developing country status. Negotiators for the United States and other member countries cite China's rapidly growing exports as evidence that many Chinese producers are fully competitive and need no special treatment in the WTO. Some trade officials from member countries have conceded that China may need a transition period to conform fully to some WTO rules. There are differences of opinion, however, over which conditions should be moderated and how long the transition periods should be.

#### IMPLICATIONS OF CHINA'S ACCESSION

China's accession to the WTO has important implications for the Chinese economy and its trading relations. Adherence to WTO rules would pressure China to trade more in accordance with its comparative advantage, thus increasing efficiency and welfare gains for its economy. Membership would improve access to foreign markets for Chinese exporters and make China more open to imports. Removal of foreign trade barriers would encourage production of exportable goods, allowing exporters to benefit from economies of scale and increase their profits. Removal of Chinese import barriers would improve consumer welfare and reduce costs for firms that use imported machinery and materials.

WTO membership would also encourage Chinese domestic economic reforms. Removing trade barriers allows international relative prices to impose market discipline on domestic producers. In the past, Chinese central planners isolated the domestic economy from international market forces. Trade liberalization would restore the links between domestic prices and world market prices. Domestic producers who formerly operated as state-owned monopolies would be forced to face competition from foreign producers. Foreign competition would help to dampen domestic inflation—a serious problem in China—as domestic firms were pressured to minimize costs and price their products in accordance with market conditions. It would also stimulate technological change, as producers sought to improve their products and production processes.

Trade liberalization would also bring significant adjustment costs to the Chinese economy. Relatively inefficient firms would lose sales and profits to foreign competitors, resulting in bankruptcies and unemployment. These costs could be large and painful for China, which has a large state-owned sector that is accustomed to protection from foreign competition and subsidies from the state.

The conditions under which China accedes to the WTO will largely determine the nature and size of the benefits and costs to the Chinese economy. Strict conditions for market reform and opening could increase the long-run efficiency and welfare gains from trade, but also increase the short-run adjustment costs. Consequently, the Chinese government sometimes appears ambivalent about the urgency of more rapid reforms. In arguing for an extended transition period to conform to WTO rules and special concessions as a developing country, they have shown great concern about the adjustment costs of reform. They warn that reforming and opening the economy too rapidly could lead to a rapid increase in unemployment and social unrest.

The conditions of accession will also influence China's access to foreign markets. Generally, Chinese exporters stand to be major beneficiaries of China's membership in the WTO. Because of the composition of their exports, particularly textiles, apparel, and other manufactures, they currently face very high trade barriers. Under the Uruguay Round Agreements, China will benefit not only from tariff reductions, but from a phase-out of quotas (under the Multi-Fiber Arrangement) for its textiles and apparel exports. China's access to foreign markets may also be aided by improved dispute settlement procedures and new rules for dumping, subsidies, and safeguards. The concentration of China's exports in a few product areas has made them especially vulnerable to trade remedy measures in the United States, the European Union, and other trade partners. Currently, the United States and the European Union—two of the major markets for Chinese exports—have special anti-dumping and safeguard procedures that make it easier to take action against imports from China and other non-market economy countries. As a member of WTO, China could argue that its exports should be subject to the same trade remedy rules as other members.

An accession protocol that includes liberal selective safeguard measures, however, could severely limit China's access to foreign markets. Although frequent resort to safeguards would help to lower the adjustment costs for China's trade partners, it could have two kinds of harmful effects on China. First, the use of safeguards could reduce the overall gains from trade for China. It would limit the volume of China's trade and the gains that China could attain through specialization according to its comparative advantage. Second, safeguards could distort the signals from the international market place that help Chinese producers make rational choices about which goods to produce and consume. If other governments impose trade remedies for protectionist reasons, they may thwart the market reforms by discouraging efficient production patterns in China.

Not all applications of trade remedies distort market signals, however. Some trade remedy measures may effectively counter im-

ports of Chinese goods sold at nonmarket prices, thus reinforcing domestic reforms aimed at price liberalization. To the extent that trade remedies discourage inefficient production in China, they may be sending precisely the kinds of signals that encourage domestic economic reforms.

The conditions under which China accedes to the WTO are also important for current and potential exporters to China. An accession protocol which requires rigorous and immediate adherence to WTO's rules could result in greater market access with more transparent rules for U.S. and other exporters. It could also alter the composition of exports to China. To the extent that China's current trade regime discriminates against certain imports (such as consumer goods or finished manufactures), producers of those goods would benefit disproportionately. An accession protocol that provides for liberal transition periods for application of WTO rules would bring similar, but delayed changes in China's import regime.

China's application to the WTO also has important implications for the world trading system. Because China is a large and growing trading country, the outcome of the negotiations could have an immediate and significant effect on the rules for world trade. Some observers believe that an accession agreement that provided numerous exemptions and long transition periods for China's adherence to WTO rules could undermine respect for, and observance of those rules. On the other hand, placing too many conditions on China's accession could lead to the exclusion of China, and thus, a significant part of world trade from the discipline of multilateral rules.

The conditions agreed to for China's accession could also set a precedent for other pending applications for WTO membership. The WTO currently has accession requests from about 30 countries, over half of which are, like China, in transition away from central planning toward market economies. If China is allowed many exemptions from current WTO rules, the governments of other applicant countries are likely to ask for similar treatment.

## IV. SINO-U.S. ECONOMIC RELATIONS INTO THE 21ST CENTURY

### MAJOR ISSUES IN U.S.-CHINA COMMERCIAL RELATIONS

By Wayne M. Morrison and John P. Hardt\*

#### CONTENTS

	Page
Summary .....	472
U.S.-China Economic Relations .....	473
U.S.-China Trade .....	473
The Rising U.S.-China Trade Deficit .....	474
U.S. Direct Investment in China .....	477
The Importance of the U.S. Market to China .....	477
Major U.S.-China Trade Issues .....	479
Intellectual Property Rights .....	479
U.S.-China IPR Issues: 1985-1993 .....	479
U.S.-China IPR Issues: 1994-1995 .....	480
U.S.-China IPR Issues: 1996 .....	481
Market Access .....	482
Textile Transshipments .....	483
Prison Labor Exports .....	484
Prospects for Future U.S.-China Commercial Relations .....	484
Promises and Pitfalls of the China Market .....	484
Likely Sources of Future Conflict .....	485
China's Industrial Policies .....	485
Trade Agreements .....	486
The Trade Deficit .....	487
The Role of Congress in U.S.-China Commercial Relations .....	487
MFN Status for China .....	487
1993 Developments .....	488
1994 Developments .....	488
1995 Developments .....	488
1996 Developments .....	488
Prospects for Congressional Action in 1996-1997 .....	488
Schools of Thought on Effective U.S.-Chinese Commercial Relations .....	489
First School-of-Thought: Differential Benefits Through Commercial Relations; Use of Penalties and Sanctions .....	491
Second School-of-Thought: Mutual Benefits through Commercial Relations: Conditionality and Reward Withholding .....	493
New Strategic Assessments and Structured Dialogues with China .....	496

#### TABLES

Table 1. U.S. Merchandise Trade with China: 1986-1995 .....	474
Table 2. Top Five U.S. Merchandise Exports to China: 1986, 1990, and 1995 .....	475

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Table 3. Top Five U.S. Merchandise Imports From China: 1986, 1990, 1995 .....	475
Table 4. U.S. Trade Balances With China, Taiwan, Hong Kong, and Greater China: 1986, 1990, and 1995 .....	477
Table 5. Utilized U.S. FDI in China: Totals and as a Percentage of All Utilized FDI in China, 1979-1995 .....	478
Table 6. Chinese Exports to the World and United States: 1988-1995 .....	478

#### FIGURE

Figure 1. U.S. Trade with China: 1986-1995 (in millions of U.S. Dollars) .....	474
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#### SUMMARY

Commercial relations between the United States and China have expanded sharply since 1980. China's rapid economic growth, coupled with its economic and trade reforms, have made it an increasingly important U.S. trade partner and a destination for U.S. foreign investment. However, U.S.-Chinese commercial relations have experienced friction over a wide variety of issues.

Over the past 10 years, the U.S. trade deficit with China has grown at a faster rate than that of any other major U.S. trading partner; it reached \$33.8 billion in 1995, the second largest U.S. bilateral trade imbalance after Japan. Many trade analysts have attributed the growing U.S.-China trade deficit to a variety of Chinese restrictive trade and investment practices. Other areas of concern to the United States have included China's large-scale violation of U.S. intellectual property rights (IPR), transshipments of textiles to the United States, and China's alleged use of forced labor for products exported to the United States. The United States and China have been able to reach agreements on market access, IPR, prison labor, and textile transshipments. In several instances, such agreements were reached only after the United States threatened to impose trade sanctions against China, and, in some cases, the U.S. has charged that China has failed to fully implement the agreements.

U.S.-China commercial relations are likely to expand in the near future, although trade frictions on a variety of issues are likely to persist, especially if the U.S. trade deficit with China continues to rise sharply, and if it is deemed that China has failed to fully comply with its trade agreements. The United States will continue to press China to improve market access to U.S. goods and services, liberalize investment rules, protect IPR, and expand the rule of law for business. China may be reluctant or unwilling to expose too much of its economy to foreign competition out of fear that such exposure could drive many Chinese firms into bankruptcy and cause widespread employment disruptions. In addition, China may attempt to implement industrial policies to promote the development of modern industries in China, which may include restrictions on foreign imports and investment. The United States might respond to China's restrictive trade policies by threatening to impose trade sanctions or by blocking China's entry into the WTO.

Trade issues, (along with human rights, weapons proliferation, and military threats against Taiwan) have become focal points in congressional debate over China's MFN status. Over the past few years, efforts have been made in Congress to pass legislation terminating or further conditioning China's MFN status. To date, none of these efforts has succeeded. Recently, some Members have ques-

tioned whether or not the annual congressional debate over China's MFN status has been an effective means for dealing with China on various issues of concern to Congress. On June 27, 1996, the House passed a resolution calling on various committees to hold hearings and report out appropriate legislation to deal with China on trade, weapons proliferation, human rights, and military policies. Congress may attempt to develop new legislative initiatives to influence U.S.-China commercial relations.

Many call for a new strategy and set of tactical mechanisms for treating commercial relations with China. There appear to be two broadly distinguishable, but not mutually exclusive, schools-of-thought or tendencies in assessing the appropriate strategies and tactics. The first school emphasis is selective use of benefits and penalties for China; the second emphasis is mutual benefits and the tactics of conditionality and reward withholding. The two schools-of-thought are structured in similar fashion to the historical debate on East-West commercial policy during the Cold War period dominated by the U.S. rivalry with the Soviet Union because many of the same debates continue on U.S.-China relations and the legislative and policy framework and mechanisms from the earlier period are still relevant to relations with China. With the arguments of these two schools-of-thought in mind, new strategic and tactical assessments may be appropriate with the introduction of regular strategic dialogues between the United States and China.

## U.S.-CHINA ECONOMIC RELATIONS

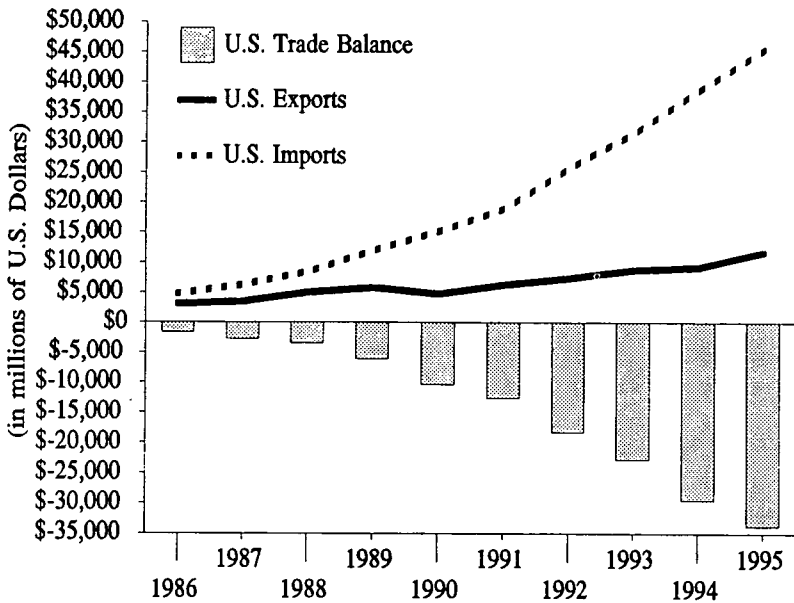
### U.S.-CHINA TRADE

U.S. trade with China rose rapidly after the two nations provided mutual most-favored-nation (MFN) status beginning in 1980. Total trade (exports plus imports) between the two nations rose from \$4.8 billion in 1980 to \$57.3 billion in 1995. U.S. exports to China in 1995 were \$11.7 billion, imports from China were \$45.6 billion, producing a U.S. trade deficit of \$33.8 billion (see table 1 and figure 1).

U.S. exports to China in 1995 accounted for 2.0% of total U.S. exports to the world. China is currently a smaller market for U.S. exports than various other East Asian markets such as Hong Kong, Singapore, South Korea, and Taiwan. For example, U.S. exports to Taiwan in 1995 were nearly two-thirds higher than those to China. However, over the past few years China has been one of the fastest growing markets. Between 1990 and 1995, U.S. exports to China grew by over 144%; they grew by 26.5% in 1995 alone over the previous year. Major U.S. exports to China in 1995 included fertilizers, aircraft and parts, agricultural products, textile fibers, and telecommunication equipment (see table 2).

China is a relatively large and growing source for U.S. imports; it accounted for 6.1% of total U.S. imports in 1995. U.S. imports from China between 1990 and 1995 grew by 200%. A large share of these imports are comprised of low-value, labor-intensive products, such as toys and games, clothing, and shoes (see table 3).

**Figure 1. U.S. Trade with China: 1986–1995 (in millions of U.S. Dollars).**



Source: U.S. Department of Commerce.

**TABLE 1. U.S. Merchandise Trade with China: 1986–1995.**  
(\$Millions)

Year	U.S. Exports	U.S. Imports	U.S. Trade Balance
1986 .....	3,105	4,771	-1,666
1987 .....	3,488	6,293	-2,805
1988 .....	5,033	8,512	-3,479
1989 .....	5,807	11,989	-6,181
1990 .....	4,807	15,224	-10,417
1991 .....	6,278	18,976	-12,698
1992 .....	7,418	25,727	-18,309
1993 .....	8,767	31,535	-22,768
1994 .....	9,287	38,781	-29,494
1995 .....	11,748	45,555	-33,807

Source: U.S. Department of Commerce.

#### THE RISING U.S.-CHINA TRADE DEFICIT

Over the past few years, the U.S. trade deficit with China has grown significantly, due largely to a surge in U.S. imports relative to U.S. exports, and has been rising at a faster rate than that of any other major U.S. trading partner. From 1986 to 1995, the U.S. trade deficit with China rose from \$1.7 billion to nearly \$34 billion,



TABLE 2. Top Five U.S. Merchandise Exports to China: 1986, 1990, and 1995.<sup>a</sup>

(\$Millions)

SITC Commodity	1986	1990	1995
Total U.S. Exports .....	3,105	4,807	11,748
Fertilizers (except crude of group 272) .....	46	544	1,204
Transport equipment, n.e.s. (mainly aircraft and aircraft parts) .....	467	755	1,189
Cereals and cereal preparations .....	11	513	1,147
Textile fibers & their wastes (excluding wool tops etc.) .....	18	385	1,041
Telecommunication & sound recording & reproducing appliances & equipment .....	66	81	724

<sup>a</sup> Notes: Commodities sorted by top five exports in 1995. N.e.s. means not elsewhere specified.  
Source: U.S. Department of Commerce.

TABLE 3. Top Five U.S. Merchandise Imports From China: 1986, 1990, 1995.<sup>a</sup>

(\$Millions)

SITC Commodity	1986	1990	1995
Total U.S. Imports .....	4,771	15,224	45,555
Miscellaneous manufactured articles (such as toys, games, etc.) ..	673	3,243	10,332
Articles of apparel and clothing accessories .....	1,710	3,469	5,854
Footwear .....	77	1,477	5,824
Telecommunication & sound recording & reproducing appliances & equipment .....	57	1,163	4,308
Electrical machinery, apparatus & appliances, n.e.s. ....	42	657	3,099

<sup>a</sup> Notes: Commodities sorted by top five imports in 1995. N.e.s. means not elsewhere specified.  
Source: U.S. Department of Commerce.

making China the second largest U.S. deficit trading partner after Japan. Many trade analysts contend that the U.S. trade deficit with China is likely to surpass that with Japan sometime in the near future.

Some analysts argue that U.S. trade data do not accurately measure trade flows between China and the United States and that the size of the U.S. trade deficit with China is overstated. Several factors have been cited for such deficiencies in the trade data. First, over the past 10 years, foreign firms have invested over \$90 billion in China, a large share of which has gone into labor-intensive, export-oriented industries.<sup>1</sup> Hong Kong and Taiwan, the two largest foreign investors in China, have shifted a large share of certain labor-intensive, export-oriented, industries (such as shoes, toys, textiles, and electronic products) to China to take advantage of China's relatively low-cost labor supply. As a result, many of the products that used to be manufactured in Taiwan and Hong Kong, then exported (including to the United States), are now being produced and exported by Hong Kong and Taiwanese firms in China. The shift of production facilities from Hong Kong and Taiwan to

<sup>1</sup> According to Chinese data, about 39% of China's foreign trade is conducted by foreign invested firms in China. (Source: *China News Service*, February 2, 1996, World-Wide Web Page).

China may partially explain the surge in U.S. imports from China that has occurred in recent years.

Second, some analysts argue that U.S. data on imports from China are inflated because a large share of such imports (about two-thirds) pass through Hong Kong for further processing, packaging and other services, before being re-exported to the United States. Hong Kong trade officials estimate the additional markup value to China on products imported by Hong Kong from China and re-exported at 25–30 percent of the value of the final re-exported product.<sup>2</sup> U.S. trade data, however, do not reflect the value-added by Hong Kong firms to Chinese products. As a result, U.S. data on imports from China re-exported through Hong Kong reflect the full value of the product imported into the United States. Finally, it is argued that U.S. data on U.S. exports to China fail to count U.S. exports to Hong Kong which are later re-exported to China.<sup>3</sup>

Nicholas Lardy, a senior fellow at the Brookings Institution, calculates that U.S. trade data overestimates the value to China of U.S. imports of Chinese products that have been re-exported through Hong Kong by \$7 billion, and underestimates U.S. exports to China (that have been re-exported to China through Hong Kong) by nearly \$5 billion.<sup>4</sup> As a result, Lardy estimates the actual 1995 U.S. trade deficit with China at about \$22 billion, as opposed to the official U.S. figure of about \$34 billion.<sup>5</sup>

The economic integration that has occurred between China, Taiwan, and Hong Kong over the past few years has led some analysts to refer to the region as "Greater China." In evaluating U.S. trade patterns with China, some analysts argue that U.S. trade with "Greater China" should be examined, because these data reflect the transfer of labor-intensive, export-oriented, industries from Taiwan and Hong Kong to the mainland, and the movement of trade through Hong Kong. As shown in table 4, the U.S. trade balance with China from 1986 to 1995 deteriorated sharply, while that with Taiwan and Hong Kong improved markedly. The U.S. trade balance with Hong Kong, for example, went from deficit to surplus, while the trade deficit with Taiwan fell by 50.9%. Overall, the U.S. trade deficit with "Greater China" rose from \$22.1 billion in 1986 to \$39.6 billion in 1995 (a 79% increase), which was significantly less than the growth in the U.S. trade deficit with China over this period (1,929%). According to Lardy, the growing U.S. trade deficit with China largely reflects the increasing level of foreign investment by Hong Kong and Taiwanese businesses in China.<sup>6</sup>

On the other hand, many analysts attribute the rising U.S. trade deficit with China to a wide variety of Chinese trade and investment barriers, such as high tariffs, quotas, import license requirements, import substitution laws, domestic content requirements, and restrictions on foreign exchange. Such barriers are believed to have a dampening effect on U.S. exports to China. In addition, Chi-

<sup>2</sup> Hong Kong Census and Statistics Department. *Annual Review of Hong Kong External Trade*. 1992. p. 1.

<sup>3</sup> This sort of trade accounting is used for all U.S. trade.

<sup>4</sup> Lardy estimates that about half of U.S. exports to Hong Kong are re-exported to China.

<sup>5</sup> *Wall Street Journal*. February 7, 1996, p. A14.

<sup>6</sup> Lardy, Nicholas R. *China in the World Economy*. Institute for International Economics, April 1994, p. 78.

nese violations of U.S. intellectual property rights (IPR) are estimated to cost U.S. firms billions of dollars in lost exports annually.<sup>7</sup>

TABLE 4. U.S. Trade Balances With China, Taiwan, Hong Kong, and Greater China: 1986, 1990, and 1995.

(\$Millions)

Year	China	Taiwan	Hong Kong	Greater China
1986 .....	-1,666	-14,608	-5,861	-22,134
1990 .....	-10,417	-11,184	-2,648	-24,248
1995 .....	-33,807	-9,680	3,926	-39,561

Source: U.S. Department of Commerce.

#### U.S. DIRECT INVESTMENT IN CHINA

The United States is the third largest investor in China after Hong Kong and Taiwan. From 1979-1995, utilized (or actual) U.S. foreign direct investment (FDI) in China was estimated at \$10.7 billion, or 7.8% of total FDI in China (see table 5). Of this amount, over \$7.6 billion (or 72% of total U.S. FDI in China) was invested between 1993 and 1995. It is estimated that new U.S. FDI in China in 1995 alone totalled \$3.1 billion.<sup>8</sup> The largest sectors for U.S. investment in China include manufacturing, petroleum, and wholesale.<sup>9</sup>

There are a number of reasons why U.S. FDI in China has surged in recent years. China is one of the world's fastest growing economies, and U.S. firms have sought to increase their presence there to take advantage of a potentially great market for their goods and services. In addition, U.S. firms have been attracted by China's recent investment reforms, which have made it easier to do business there. U.S. companies may also be trying to skirt Chinese trade barriers (such as quotas, high tariffs, restrictive license requirements, etc.) by shifting production to China in order to obtain easier access to the Chinese market.

#### THE IMPORTANCE OF THE U.S. MARKET TO CHINA

According to U.S. statistics, the United States is currently China's largest market for Chinese exports. The importance of the U.S. market for Chinese exports has risen sharply over the past seven years, from \$8.5 billion in 1988 to \$45.6 billion in 1995.<sup>10</sup> The U.S.

<sup>7</sup>The International Intellectual Property Alliance (IIPA), a U.S. IPR business association estimates U.S. trade losses from IPR piracy in China in 1995 at \$2.3 billion. (Source: Reported in the *Journal of Commerce*, April 12, 1996, p. 2).

<sup>8</sup>The U.S.-China Business Council. *The U.S.-China Business Council: Forecast '96, Foreign Direct Investment*, March 1996. Data for 1995 are estimates based on actual data for January-September 1995. All investment data are taken from official Chinese statistics.

<sup>9</sup>United States Trade Representative. *1996 National Trade Estimate Report on Foreign Trade Barriers*, 1996, p. 45.

<sup>10</sup>It is important to note that Chinese trade statistics on U.S.-China trade differ significantly from U.S. trade data. This is because a significant share of China's exports pass through Hong Kong before being re-exported to the United States. China generally counts such exports as Chi-

Continued

TABLE 5. Utilized U.S. FDI in China: Totals and as a Percentage of All Utilized FDI in China, 1979-1995<sup>a</sup>

Year or Period	U.S. FDI in China (\$Millions)	All Countries FDI in China (\$Millions)	U.S. FDI as a % of Total (%)
1979-1986 .....	946	7,937	11.9
1987 .....	263	2,647	9.9
1988 .....	236	3,194	7.4
1989 .....	284	3,774	7.5
1990 .....	456	3,487	13.1
1991 .....	323	4,366	7.4
1992 .....	511	11,008	4.6
1993 .....	2,063	27,515	7.5
1994 .....	2,491	33,767	7.4
1995 * .....	3,097	37,521	8.3
Cumulative total: 1979-1995 *	10,657	136,054	7.8

<sup>a</sup> Note: Data for 1995 are estimates based on actual data for January-September 1995.

Source: The U.S.-China Business Council. *The U.S.-China Business Council: Forecast '96, Foreign Direct Investment*, March 1996. All investment data are taken from official Chinese statistics.

share as a destination of total Chinese exports rose from 17.8% in 1988 to 34.3% in 1993; over the past two years, however, the importance of the U.S. market for China has decreased somewhat, to 32.1% in 1994 and to 31.1% in 1995 (see table 6).<sup>11</sup>

TABLE 6. Chinese Exports to the World and United States: 1988-1995.<sup>a</sup>

Year	Total Chinese Exports (\$Billions)	Chinese Exports to the United States (\$Billions)	Chinese Exports to the United States as a % of Total Exports (%)
1988 .....	\$47.7	\$8.5	17.8%
1989 .....	52.9	12.0	22.7
1990 .....	62.8	15.2	24.2
1991 .....	71.9	19.0	26.4
1992 .....	85.5	25.7	30.0
1993 .....	91.6	31.5	34.3
1994 .....	120.8	38.8	32.1
1995 .....	148.8	45.6	31.1

<sup>a</sup> Notes: Data on total Chinese exports to the world are official Chinese trade statistics. Data on Chinese exports to the United States are U.S. data, reported as U.S. imports (customs value) of Chinese products into the United States).

Sources: International Monetary Fund, Direction of Trade Statistics; U.S. Department of Commerce, and official Chinese government statistics.

As noted earlier, a large share of China's exports are produced by wholly or partially owned foreign-invested firms in China. The

nese exports to Hong Kong rather than exports to the United States, while U.S. data treat such exports as Chinese exports to the United States.

<sup>11</sup> These figures were calculated using U.S. trade data on imports from China (treating these figures as Chinese exports to the United States) and official Chinese trade data on total Chinese exports.

Taiwanese Board of Foreign Trade, for example, estimates that 70% of all exports by Taiwan-funded factories in China are shipped to the U.S. market.<sup>12</sup> This suggests that the United States is an important market, not only for Chinese firms, but for foreign-invested firms as well.

## MAJOR U.S.-CHINA TRADE ISSUES

### INTELLECTUAL PROPERTY RIGHTS

Section 182 of the Trade Act of 1974 (referred to as Special 301), as amended, requires the U.S. Trade Representative (USTR) to identify and take specific action against "priority foreign countries" that are considered to maintain the most egregious policies regarding protection of U.S. IPR and market access of related goods and services. The USTR can impose trade sanctions if an agreement cannot be reached to end violations of U.S. IPR.<sup>13</sup>

#### *U.S.-China IPR Issues: 1985-1993*

The 1979 U.S.-China Trade Agreement that governs trade relations between the two countries specifies that both countries will afford each other equal national treatment in the protection of patents, copyrights, and trademarks. In 1985, U.S. officials expressed concern over IPR protection in China during talks held under the auspices of the U.S.-Chinese Joint Commission on Commerce and Trade (JCCT), and similar concerns were raised in market access negotiations begun in 1987. Concerns over China IPR protection led the USTR to place China on its Special 301 priority watch list in 1989 and 1990.

In April 1991, the USTR designated China as a *priority foreign country* under Special 301 and launched an investigation of four specific deficiencies in China's IPR practices: (1) failure to provide product patent protection for chemicals, pharmaceuticals, and agrichemicals; (2) lack of copyright protection for U.S. works not first published in China; (3) deficient levels of protection under Chinese copyright law and regulations; and (4) inadequate protection of trade secrets.

On November 26, 1991, the USTR determined that insufficient progress had been made in resolving Chinese IPR violations and issued a draft list of products imported from China, valued at \$1.5 billion, that would be subject to U.S. trade sanctions, barring an agreement by January 16, 1992. China in turn threatened counter sanctions against U.S. products. However, an agreement was reached on January 16, 1992. China agreed to strengthen its patent, copyright, and trade secret laws, and to improve IPR protection for U.S. computer software, sound recordings, agrichemicals, and pharmaceuticals. The USTR placed China on its Special 301 watch list in 1992 and 1993.

<sup>12</sup> *The Free China Journal* (Taiwan), May 24, 1996, World Wide Web Site.

<sup>13</sup> Since the enactment of Special 301 in 1988, the USTR has issued a three-tier list (beginning in 1989) of countries which are considered to maintain inadequate regimes for the protection of U.S. IPR or deny market access: (1) *priority foreign countries* which are considered to be the worst violators of U.S. IPR and are subject to a USTR investigation and possible U.S. trade sanctions; (2) *priority watch list countries* which are considered to have serious deficiencies in their IPR regime, but do not currently warrant an investigation; and (3) *watch list countries* which have been identified because they maintain IPR practices or barriers to market access that are of particular concern, but do not yet warrant higher level designations.

*U.S.-China IPR Issues: 1994-1995*

On April 30, 1994, the USTR issued its annual Special 301 review. The USTR announced that China had made significant progress in implementing the 1992 IPR agreement by enacting new IPR laws, but stated that China's enforcement of its laws and regulations was sporadic at best and virtually non-existent for copyrighted works. In particular, the USTR cited the establishment of 26 factories in China which were producing pirated CDs, as an example of China's "egregious" violation of U.S. IPR. In addition, the USTR stated that trade barriers had restricted access to China's market for U.S. movies, videos, and sound recordings, and that such restrictions encouraged piracy of such products in China. The United States called on China to take effective and immediate measures to curb piracy (including making raids on certain CD producers), instituting structural changes to improve IPR protection over time (such as creating a border enforcement regime, instituting a copyright verification system, and providing access to IPR courts), and providing greater market access for U.S. intellectual property-based products. The USTR warned that China would be designated as a *priority foreign country* by June 1994, unless it improved its IPR protection regime. On June 30, 1994, the USTR designated China as a *priority foreign country* under Special 301, initiated an investigation, and subsequently began new talks with Chinese officials.

On February 4, 1995, the USTR announced that insufficient progress had been made in talks with Chinese officials and issued a list of Chinese products, valued at about \$1.1 billion, which would be subject to 100 percent import tariffs on February 26, 1995, unless an agreement was reached. China in turn threatened counter sanctions against U.S. products. However, an IPR agreement was reached on February 26, 1995. China agreed to:

- Begin a "Special Enforcement Period" over the course of the next several months by taking action against large-scale producers and distributors of pirated materials, and prohibiting the export of pirated products such as CDs, laser disks (LDs), and CD-ROMs. Chinese officials pledged that if such firms were found to be in violation of IPR laws, they would be shut down, their business licenses revoked, and their machinery and products seized and destroyed.
- Establish mechanisms to ensure long-term enforcement of IPR laws, such as banning the use of pirated materials by the Chinese government, establishing a coordinated IPR enforcement policy among each level of government, enhancing IPR enforcement agencies, creating an effective customs enforcement system, establishing a title verification system in China to ensure that U.S. audio visual works are protected against unauthorized use, reforming China's judicial system to ensure that U.S. firms can obtain access to effective judicial relief, establishing a system of maintaining statistics concerning China's enforcement efforts and meeting with U.S. officials on a regular basis to discuss those efforts, improving transparency in Chinese laws concerning IPR, and strictly enforcing IPR laws.

- Provide greater market access to U.S. products by removing import quotas on U.S. audio visual products, allowing U.S. record companies to market their entire works in China (subject to Chinese censorship concerns), and allowing U.S. intellectual property-related industries to enter into joint production arrangements with Chinese firms in certain Chinese cities.<sup>14</sup>

### *U.S.-China IPR Issues: 1996*

Several U.S. firms charged that IPR piracy in China worsened during 1995 and early 1996, despite the 1995 IPR agreement, and pressed the USTR to take tougher action against China. The International Intellectual Property Alliance (IIPA), an association of eight U.S. copyright-based industries, estimated that IPR piracy by Chinese firms cost U.S. firms \$2.3 billion in lost trade during 1995, making China the largest foreign pirate of U.S. intellectual property.<sup>15</sup>

On April 30, 1996, the USTR again designated China as a *priority foreign country* under Special 301. The USTR conceded that China had made some progress in cracking down on IPR violations, but claimed that it had not fully complied with the February 1995 IPR agreement. In particular, the USTR noted that China had cracked down on piracy at the retail level, launching raids and destroying millions of pirated CDs and hundreds of thousands of pirated books, sound recordings, and computer software. However, China had failed to take effective action against the estimated 30 or so factories in China which were mass-producing and exporting pirated products. U.S. officials called on the Chinese government to close such factories, prosecute violators, and destroy equipment used in the production of pirated products. Further, the USTR stated that China failed to establish an effective border enforcement mechanism within its customs service to prevent the export of pirated products. Finally, The USTR indicated that China failed to provide sufficient market access to U.S. firms, due to high tariffs, quotas, and regulatory restrictions on joint ventures.

On May 15, 1996, the USTR published a preliminary list of Chinese products under consideration for U.S. sanctions and warned that the United States would impose prohibitive 100% tariffs on approximately \$2 billion worth of Chinese products (drawn from the preliminary list) by June 17, 1996, unless China took more effective action to fully implement the IPR agreement. China threatened to impose counter sanctions against a similar level of U.S. products.

On June 17, 1996, Acting USTR Charlene Barshevsky announced that the United States was satisfied that China was taking steps to fulfill the 1995 IPR agreement, and hence would not impose sanctions. Barshevsky cited the Chinese government's recent closing of 15 plants producing illegal CDs, including 12 in Guangdong Province. She also cited China's pledge to extend a period of focused enforcement of anti-piracy regulations against regions of particularly rampant piracy, such as Guangdong Province. The Chi-

<sup>14</sup> USTR press release, February 26, 1995, USTR World Wide Web Site.

<sup>15</sup> *International Intellectual Property Alliance* news release, April 30, 1996, p.1.

nese government also promised to improve border enforcement to halt exports of pirated products as well as illegal imports of presses used to manufacture CDs. Further, the Chinese government reaffirmed its pledge to open up its market to imports of IPR-related products, such as motion pictures and recordings. Finally, Chinese officials promised to improve monitoring and verification efforts to ensure that products made by Chinese CD plants and publishing houses are properly licensed.<sup>16</sup>

#### MARKET ACCESS

U.S. officials have held negotiations with China over the past several years regarding U.S. concerns over restrictive Chinese trade and investment barriers. In April 1991, the Bush Administration initiated a Section 301 case against four significant unfair trading practices affecting U.S. exports to China:

- Selected product-specific and sector-specific import prohibitions and quantitative restrictions;
- Selective restrictions on imports made effective through restrictive import license requirements;
- Selected technical barriers to trade, including standards, testing and certification requirements, and policy toward phytosanitary and veterinary standards that create unnecessary obstacles to trade; and
- Failure to publish laws, regulations, judicial decisions, and administrative rulings of general application pertaining to customs requirements, restrictions, or prohibitions on imports or affecting their sale or distribution in China.

The Section 301 case against China was highly unusual due to its breadth of coverage. Most Section 301 cases involve investigations of certain trade restrictions to specific products. However, the China Section 301 case was one of the most sweeping market access investigation in the USTR's history; it was essentially aimed at substantially reforming China's entire trade regime. In addition, the USTR linked U.S. support for China's re-entry into the General Agreement on Tariffs and Trade (GATT) to a successful resolution of the trade dispute.

On August 21, 1992, the USTR determined that negotiations had failed to resolve the trade dispute and threatened to impose \$3.9 billion in U.S. trade sanctions unless an agreement was reached by October 10, 1992. The proposed sanctions were the highest level ever issued by the USTR under a Section 301 case. China in turn threatened retaliation against a comparable level of U.S. products.

On October 10, 1992, the United States and China reached an agreement settling the Section 301 case. Under a Memorandum of Understanding (MOU), China pledged to reduce or eliminate a wide variety of trade barriers over the next 5 years (according to specific timetables), including tariffs, quotas, import restrictions, import licenses, and import substitution laws. In addition, China agreed to take a number of specified steps to make its trade regime more transparent, such as publishing its trade laws and regulations. Finally, China agreed to establish a joint working group to

<sup>16</sup> USTR press release, June 17, 1996, World Wide Web Site.



eliminate scientific standards and testing barriers to agricultural imports within 12 months. For its part, the United States pledged to "staunchly support" China's entry into the GATT and to reduce controls on computer and telecommunications equipment exports to China.

Failure on the part of China to gain status as a founding member of the World Trade Organization (WTO) at the end of 1994 led China to subsequently announce that it would no longer abide by the market access agreement, due to the U.S. position on conditions for China's entry into the WTO. However, following the signing of the U.S.-Chinese IPR agreement in March 1995, U.S. and Chinese officials announced that an agreement had been reached in which China would resume its implementation of the market access MOU by no later than March 31, 1995, and that talks would be held with the United States concerning liberalizing China's markets for telecommunications services and insurance.

U.S. trade officials have held several rounds of talks with Chinese officials concerning China's implementation of market access agreement. USTR officials have noted that China has made some progress in reforming its trade regime. It has made its trade regime more transparent, lowered tariffs, and eliminated quotas and license restrictions. However, China has failed to remove all trade barriers to certain commodities and, in some cases, has erected new barriers. In addition, China has failed to eliminate discriminatory sanitary regulations on imported food products. On several occasions, the USTR has threatened to impose trade sanctions against China for failing to comply with certain aspects of the MOU.<sup>17</sup>

#### TEXTILE TRANSSHIPMENTS

The U.S. Customs Service has found evidence on several occasions that China has attempted to circumvent U.S. textile quotas by transshipping Chinese products through other countries to the United States using false country of origin labels, and through misclassification of textile and apparel products. The USTR estimates that such transshipments may total up to \$2 billion each year. In addition, the United States has charged that certain Chinese entities have sought to avoid U.S. tariffs by undervaluing textile and apparel shipments.

On January 6, 1994, the USTR announced that China's textile and apparel quota would be significantly reduced (25% to 35% below 1993 levels) due to China's refusal to accept anti-circumvention provisions in a new textile agreement. The new quota levels were set to take effect on January 17, 1994. However, on January 17, 1994, the United States and China concluded a new textile agreement that would effectively reduce the growth rate of China's textile exports to the United States, and allow the United States to significantly reduce China's quotas (under certain conditions) if China violates the agreement through transshipments. The textile agreement is effective through 1997. Subsequently, charges by the U.S. Customs Service of illegal transshipments by China have led

<sup>17</sup> U.S. Library of Congress, Congressional Research Service. *China-U.S. Trade Issues*, by Wayne M. Morrison, IB91121 (regularly updated), pp. 10-11.

the United States on a number of occasions to reduce China's textile and apparel quotas on specific products.<sup>18</sup>

#### PRISON LABOR EXPORTS

The use of forced labor is believed to be widespread and a long-standing practice in China. Recent evidence suggests that China may be utilizing forced labor on a large scale in order to boost its exports, a large portion of which may be targeted to the United States. The importation from any country of commodities produced through the use of forced labor is prohibited by U.S. law, although obtaining proof of actual violations for specific imported products is often extremely difficult.

On August 7, 1992, the United States and China formally signed an MOU to ensure that products made by forced labor in China are not exported to the United States. China agreed to provide U.S. officials with access to forced labor sites suspected of producing products for export to the United States. On March 14, 1994, the United States and China signed an agreement in which China pledged to enhance U.S. access to Chinese production facilities. The President's May 26, 1994 China MFN status report stated that China had generally abided by the MOU. However, reports by certain human rights groups have charged that China has taken a number of steps to circumvent the MOU on prison labor exports.<sup>19</sup>

#### PROSPECTS FOR FUTURE U.S.-CHINA COMMERCIAL RELATIONS

##### PROMISES AND PITFALLS OF THE CHINA MARKET

China appears to offer potentially large trade and investment opportunities for U.S. firms, although doing business in China can often prove difficult.

*On the positive side:* China's large consumer population; coupled with its rapid economic growth, makes China a market that is difficult to ignore. China's real gross domestic product (GDP) grew by 10.8 percent in 1995, and it is projected to rise at an average annual rate of 8 percent through the year 2010.<sup>20</sup> This means that China will double its GDP in less than 10 years. China has substantial needs for modern infrastructure, including transportation, energy, and telecommunications. The Chinese government has indicated it intends to spend over \$250 billion through the year 2000 for infrastructure projects. In addition, rapid economic growth is quickly raising incomes in China and increasing demand for consumer goods, including U.S. products. The Chinese are quite interested in obtaining high technology, which they view as vital to China's future economic development, and they view the United States as possessing some of the world's best technology. Finally, China has substantially liberalized its economy in recent years, due in part to pressure from the United States and China's efforts to join the WTO.

China's sharp economic growth, along with its massive infrastructure needs, has led the Department of Commerce to designate

<sup>18</sup> Ibid., p. 12.

<sup>19</sup> Ibid., p. 12-13.

<sup>20</sup> DRI/McGraw Hill, *World Markets Country Summaries, Fourth Quarter 1995*; and *World Markets Reports*, February 1996.

China as one of the top 10 "emerging markets" which offer the greatest future opportunities for U.S. exports. It projects the top five best commercial prospects (based on size and growth potential) for U.S. firms in China for 1996 will be aircraft and parts, electric power systems, computers and peripherals, telecommunications equipment, and automotive parts and service equipment. These trends would indicate that trade and investment ties between the two countries are likely to increase in the decades ahead, especially if China continues to liberalize its economy.

*On the negative side:* China has often proven to be a difficult market for U.S. firms to penetrate. Despite China's recent efforts to liberalize its trade regime, U.S. firms face a wide variety of trade barriers and restrictive business requirements in China, consistent with China's highly protectionist economic and trade policies. High tariffs, quotas, import taxes, import license requirements, restrictive inspection standards, import substitution policies, local content policies, and restrictions on foreign exchange are used to control and limit foreign imports. Problems associated with doing business in China itself include government policies and regulations which discriminate against foreign firms in favor of Chinese firms, lax enforcement of IPR, restrictions on the scope of permissible representative office activities in China, and the absence of the rule of law for business transactions.<sup>21</sup>

#### LIKELY SOURCES OF FUTURE CONFLICT

##### *China's Industrial Policies*

China has targeted different industrial sectors for development, including automobiles, electronics, machinery, construction materials, and petrochemicals, which have been deemed "pillar industries." It appears that China intends to develop these industries by erecting high tariffs and other protective barriers to foreign imports, while pressuring foreign firms to invest in joint venture operations in China. Chinese officials believe that, without trade protection measures, it cannot promote the development of indigenous industries it deems important to its economic future, while the United States maintains that free trade and open investment policies are the best methods for promoting economic modernization. China is also concerned that opening too many sectors to foreign competition could cause economic disruptions. It is especially concerned that state-owned enterprises, many of which are very inefficient, would likely go out of business if subjected to foreign competition.

The Chinese possess a strong desire to obtain high technology, both as a means of modernizing the domestic economy and in order to obtain higher export earnings. As a result, it appears that one of the key strategies for economic development is to use the allure of China's large markets to encourage foreign firms (especially high technology), to establish operations in China, usually with a Chinese partner. The Chinese expect foreign firms to transfer technology and provide management and organizational training to Chinese workers in exchange for being allowed to sell their prod-

<sup>21</sup>The general absence of rule of law in business transactions in China makes often makes it difficult for U.S. firms to have contracts enforced in China. Instead, business is generally conducted on the basis of "personal relationships" with customers and suppliers.

ucts in China. It appears evident that China is using this strategy to promote the development of its own domestic high technology industries. In addition, China has attempted to condition many of its purchases of high or advanced technology products, such as aircraft and telecommunications equipment, on domestic content requirements. Such efforts are made to get a greater share of such products made in China and to gain access to higher levels of technology. Ultimately, it appears that Chinese officials hope to develop internationally competitive industries for themselves which can supply domestic needs and be exported to gain hard currency.

Chinese industrial policies could lead to growing conflict with the United States:

- U.S. officials have expressed concern that China's industrial policies will lead to an increase in trade barriers against U.S. products. For example, U.S. officials have stated that recently promulgated Chinese regulations on automobiles (such as import substitution requirements) violate the 1992 U.S.-Chinese market access agreement.
- While Chinese policies which require U.S. investment in China as a condition for market access will generate U.S. exports to China (such as production machinery, parts, and supplies, as well as services, used for production in China), exports will likely not be as large as those which might occur if China purchased those products directly from U.S. suppliers under a free and open trade regime. China's domestic content and technology transfer requirements became an issue during a strike by Boeing aircraft workers in 1995. The workers argued that such policies were resulting in job losses for U.S. aircraft workers and urged the President to begin a Section 301 trade investigation against China.
- Currently, Chinese exports to the United States are mainly comprised of low-skill, low cost, and labor-intensive products, such as toys, shoes, and textiles, which, for the most part, do not compete against U.S. domestic firms in U.S. and foreign markets. However, as China's economy becomes more mature, it will likely expand its production to more sophisticated products which could compete with many U.S. industries. If China's markets are closed to U.S. products, U.S. firms and workers affected by Chinese competition may seek to obtain trade remedies against China, including restrictions on Chinese imports.
- China's planned use of industrial policies could lead the United States to block China's entry into the WTO or to initiate new Section 301 investigations which would involve the threat of U.S. sanctions against China.

### *Trade Agreements*

The United States has had difficulty in getting China to fully abide by its trade agreements. For example, U.S. officials concede that China has abided by many provisions of the 1992 market access agreement, but complain that it has not removed many of its phytosanitary restrictions on agricultural products and quantitative restrictions on certain industrial sectors (as specified under the agreement). In addition, in some cases, trade barriers have been removed on certain products only to be replaced by other

trade restrictions. In the case of IPR protection, it remains to be seen whether China will maintain a sustained effort to crack down on IPR piracy and will follow through on its other commitments on market access. This suggests that even when a trade agreement is reached with China, frictions are likely to persist for many years. The United States has specifically linked its support of China's accession to the WTO to its compliance with agreements on market access and IPR. The United States is currently pressing China to open its service sector to foreign competition.

### *The Trade Deficit*

The U.S. trade deficit with China is likely to continue to rise, possibly exceeding the U.S. trade deficit with Japan in the near future. While most economists argue that bilateral deficits themselves are not indicators of the "openness" of a country's trade regime, the size and growth of the U.S. trade deficit with its major trading partners has often become a focal point on the development of U.S. trade policy toward particular countries.<sup>22</sup> A large and rising U.S. trade deficit with China will likely increase pressure on the Administration to closely examine, and possibly take action, against Chinese policies which are deemed restrictive to U.S. commercial interests.

## THE ROLE OF CONGRESS IN U.S.-CHINA COMMERCIAL RELATIONS MFN STATUS FOR CHINA

Under Title IV of the 1974 Trade Act, as amended (commonly referred to as the "Jackson-Vanik Amendment"), China's MFN status is subject to annual renewal (through a presidential waiver, which is subject to possible congressional action). Prior to 1989, renewal of China's MFN status was generally non-controversial and automatic. However, the Tiananmen Square suppression in June 1989, and subsequent Chinese government crackdowns on the exercise of human rights, generated support among many Members of Congress to terminate China's MFN status, and to impose other types of sanctions against China.<sup>23</sup>

Subsequently, the annual renewal of China's MFN status has been a source of considerable debate in the Congress, and has been used by Members to express concerns over various issues, including the growing U.S. trade deficit with China, unfair Chinese trade practices, inadequate IPR protection, weapons proliferation, prison labor exports, as well as human rights and foreign policy issues (such as China's military threats against Taiwan). On several occasions over the past six years, Congress has considered legislation which would revoke China's MFN status, terminate MFN status for products produced by certain Chinese government entities, or condition MFN status on a presidential certification that China has made improvements in specified areas.

<sup>22</sup> The sharp growth in the U.S. trade deficit with Japan during the 1980s was a major factor prompting U.S. pressure on Japan to open its markets to U.S. goods and services.

<sup>23</sup> The 101st Congress passed legislation containing restrictions on U.S. commercial relations with China (many of which codified or expanded actions which had already been taken by the Bush Administration) in response to the Tiananmen Square crackdown. For a description of these sanctions, see Congressional Research Service, *China: Current U.S. Sanctions*, (CRS Report 94-92 F) by Kerry Dumbaugh, February 8, 1994, 8 pages.

Attempts to link China's MFN renewal to various trade and non-trade issues (other than those stated in the Jackson-Vanik law) were opposed by the Bush Administration, which sought to deal with these issues outside the MFN process. As a result, President Bush in 1991 and 1992 vetoed congressional attempts to revoke or condition China's MFN status, and such vetoes were sustained in the Senate. As a presidential candidate, Mr. Clinton criticized the Bush Administration's China policy and pledged to take a tougher approach to U.S.-China trade relations, including conditioning China's MFN renewal.

### *1993 Developments*

On May 28, 1993, President Clinton issued an executive order effectively continuing China's unconditional MFN status for an additional year, but placing conditions on China's MFN status thereafter. Specifically, the Secretary of State could not recommend an extension of China's MFN unless he determined that China had abided by its 1992 agreement to halt exports of prison labor products to the United States, and that an extension would substantially promote freedom of emigration objectives of the Jackson-Vanik amendment to the 1974 Trade Act. In addition, the Secretary of State had to consider whether China had made overall significant progress in specific areas of human rights.

### *1994 Developments*

On May 26, 1994, President Clinton announced his decision to extend China's MFN status for an additional year, even though China did not achieve overall significant progress in human rights. The President also announced that human rights conditions (other than freedom of emigration) would not be linked to China's continued MFN status, but instead would be addressed by other means. However, the President announced that the United States would impose sanctions on U.S. imports of Chinese munitions due to alleged violations of human rights in China.

### *1995 Developments*

On June 2, 1995, President Clinton announced his decision to renew China's MFN status for an additional year. On July 20, 1995, the House tabled legislation (H.J.Res. 96), which would have terminated China's MFN status, and instead passed H.R. 2058, which urges the President to press China on human rights, trade, and arms exports, and to report his efforts to the Congress every 6 months. The Senate has not considered the bill.

### *1996 Developments*

On May 31, 1996, President Clinton announced his intention to renew China's MFN status. On June 27, 1996, the House voted to disapprove H.J.Res. 182, which would have denied the renewal extension of China's MFN status.

#### PROSPECTS FOR CONGRESSIONAL ACTION IN 1996-1997

Many Members have questioned whether or not the annual congressional debate over China's MFN status has been an effective means for dealing with China on various issues of concern to Con-

gress. Some Members who support continued MFN status for China argue that the annual debate harms U.S. commercial interests in China by creating a level of uncertainty over whether the United States and China will continue to maintain normal trade relations. Other Members who support taking tough action against China over various trade and non-trade issues have expressed frustration that legislation to terminate China's MFN status cannot be passed over a presidential veto. Still other Members who support taking action against China on various trade and non-trade issues question whether terminating, threatening to terminate, or conditioning China's MFN status is the appropriate policy tool to modify China's behavior, since terminating China's MFN status would likely eliminate most mutually beneficial trade between the two nations.

Congress may attempt to develop alternative measures for dealing with U.S.-China relations, including changes to the Jackson/Vanik amendment. Several bills have been introduced in the 104th Congress which would affect U.S.-China commercial relations:

- H.R. 1849 (Stockman), would nullify any Jackson-Vanik waiver for China and prevent the granting of MFN status to China except by statute.
- H.R. 2926 (Ewing) would extend permanent MFN status to China (as well as 16 other nations).
- H.R. 3241 (Pelosi) would impose tariffs on certain Chinese products until the President certifies that China is abiding by the 1995 U.S.-China IPR agreement.
- H.R. 3577 (Solomon) would require the United States to oppose the provision of assistance to China by any international organization unless China met certain conditions.
- H.R. 3684 (Gilman) would bar U.S. imports of products manufactured, produced, or exported by the People's Liberation Army (PLA) and Chinese defense industrial trading companies.

Shortly after the House defeated H.J.Res. 182 (which would have terminated China's MFN status) on June 27, 1996, it passed a resolution (H.Res. 461) calling on various committees to hold hearings and report out appropriate legislation to deal with China on a variety of issues, including trade, weapons proliferation, human rights, and military policy. This may indicate an attempt to develop additional legislative proposals for dealing with China (other than the annual MFN status renewal process) in the near future. For example, some Members have proposed that legislation should be passed which would enable Congress to condition U.S. support of China's WTO accession.

#### SCHOOLS OF THOUGHT ON EFFECTIVE U.S.-CHINESE COMMERCIAL RELATIONS

Many call for a new strategy and set of tactical mechanisms for treating commercial relations with China. There have been explicit calls in Congress, e.g., H.Res. 461 noted above, for new legislative initiatives to influence U.S. commercial relations with China. The Clinton Administration has begun a revitalized policy of engagement featuring a series of high level exchanges and dialogues with China to be held beginning in late 1996. It seems appropriate then

to review two broadly distinguishable schools-of-thought on strategic assessments and appropriate tactics for the United States in conducting its commercial policy with China.

Three major pieces of legislation dominate U.S. international commercial policy relations: the trade acts, government credit legislation dealing with the Export-Import Bank and Commodity Credit Corporation and export administration laws. This body of legislation interrelates commercial and other policy issues. It should be recalled that Senator Jackson and Congressman Vanik authored their amendment to the Trade Act of 1974 to ensure that Soviet Jews had the right to emigrate if they chose; the Export-Import Bank was established in 1936 to foster American commerce with the Soviet Union but was later tied by the Jackson-Vanik amendment to emigration criteria; the Export Control (later Export Administration Act) was adopted during the Cold War period to deny exports from all Western industrial countries to the Soviet Union that might either benefit their military or their industrial developments. These institutions and their legislation have been modified over time but make up a major part of the legislative and policy framework for dealing with U.S.-China commercial relations. The general questions that define these broad schools-of-thoughts are the following:

How may we influence the future Chinese decisionmaking in commercial and economic policy, and their interaction with their domestic political and international security policies? To what extent do Chinese national interests in giving priority to transition to the market system parallel or complement our interests? What are the alternative courses of action for the United States in influencing Chinese outcomes that would enhance our national interests when they differ from those of the Chinese leadership? On balance would it be more effective if we focused attention on reinforcing Chinese interests we share or opposing Chinese policies with which we differ? As China emerges as an important economic power, should we first stimulate and accommodate their integration into the global community or use our leverage to shape their participation close to our commercial traditions and practices before their integration?

There appear to be two schools-of-thought or tendencies in assessing the appropriate strategies and tactics. The first school emphasizes selective use of unilateral benefits reinforced by penalties for China; the second makes an assessment keyed to mutually determined commitments and benefits, and favors a reward withholding tactic. These schools-of-thought are not intended to precisely reflect current or past U.S. official policy or that of any particular actors, but represent groups of views that seem to be historically and internally consistent. The two schools-of-thought are structured in similar fashion to the historic debate on East-West commercial policy during the Cold War period dominated by the U. S. rivalry with the Soviet Union because many of the same debates continue on U.S.-China relations and the legislative and policy framework and



mechanisms from the earlier period are still relevant to our relations with China.<sup>24</sup>

The two schools-of-thought represent current strategic assessments, tactical options and historical debates but also appear logically consistent:

**FIRST SCHOOL-OF-THOUGHT: DIFFERENTIAL BENEFITS THROUGH COMMERCIAL RELATIONS; USE OF PENALTIES AND SANCTIONS**<sup>25</sup>

Those that perceive the benefits to the People's Republic of China from trade as greater than those to the United States, or believe that China has a natural inclination to follow economic, political, and security policies inimical to U.S. national interests and values, tend to favor penalties over reward-withholding systems. They would utilize sanctions or threat of penalties as a major instrument of commercial policy. This school-of-thought tends to hold the following.

The assessment of relative costs and benefits on overall economic performance in this body of opinion stresses the greater relative benefits that China obtains from commercial relations with the United States. This view holds that in the current commercial relationship China benefits more, because they have free access to U.S. markets while China closes many of its markets to U.S. firms, except in certain high priority sectors. After restricting access, China forces foreign firms to invest in China, and share technology, in order to get access to its markets. Hence, it is argued that the U.S. must press China, through threats of sanctions, to gain market access. Some argue that as China's benefits increase with its commercial growth, so does our potential leverage. Others stress that China's increased economic competence builds its ability to rely independently on its own domestic resources to meet growth needs in an expanding economy. Many who hold the differential benefit view do not consider explicitly the impact of commercial relations with China on prosperity in the United States's economy, or view these benefits from China as replaceable in trade with others at little marginal cost. In this view, the gains from increased investment and commerce to a rapidly developing country such as China are far greater through access to markets, technology transfers and financial support than those to the largest, possibly most technologically-developed market economy—the United States.

While many in this school recognize some market and pluralistic development in the Chinese system of governance, the general assumption appears to be that national interests in their system are still basically inimicable to our interests, i.e., a zero-sum game assessment obtains that says what is good for them tends to be bad for us. For example, China's attempts to promote the development of certain industries such as automobiles will cause China to close its markets to foreign firms until China can build an export competitive industry. The Chinese, it is argued, do not comprehend the

<sup>24</sup> John P. Hardt and Ronda A. Bresnick, *The Setting: The Congress and East-West Commercial Relations*, "United States-Soviet Trade Policy", in *Issues in East-West Commercial Relations*. GPO, Joint Economic Committee, January 12, 1979, pp.1-14 and pp.267-236, respectively.

<sup>25</sup> The first and second schools-of-thought herein are similar to the pessimistic and optimistic views in American policy circles on Chinese development in Robert C. Sutter's paper in this volume.

reciprocal benefits of free trade and will employ protectionist policies when they think it is in their interest. Or a parallel view of differentiation is that political, security, nationalistic or ideological views centered on retaining Communist Party control of the system will override mutually beneficial approaches in their economic development. This view may be reflected in some expressed Chinese views that the United States is historically and inevitably bent on diminishing China's independence and countering its aspirations to increased economic power and well being.

Another component view in this assessment is that withholding commercial advantage with attendant retardation of China's economy would be an effective lever to influence actions in political, security, human rights or other non-economic matters. This assessment, referred to as "linkage" in the policy discussions on United States-Soviet commercial relations, was alternatively criticized and implemented during the 1970s. Tying trade benefits or normal trade through extension of most-favored-nation tariff status on condition of meeting "freedom of emigration" criteria as proscribed by legislation and determined by the President was an example of this linkage policy interrelating commerce and non-economic issues. Though disputed, many later credited the application of this legislation with a major role in changes in Soviet policy and even the collapse of the Soviet communist empire. Since the fall of communism throughout East Europe, the relevant legislation is still in the books but not rigorously applied in commercial relations in the former Soviet Union and Eastern Europe due to determinations of compliance by the successive recent U.S. presidents.

This school-of-thought seems to believe that some Chinese leaders perceive retention of their control over political and social policies as necessary for retaining leadership, and may choose to forgo the perceived advantages of free trade fostering transition to the market economy that also promotes pluralistic development and a rule-of-law.

The differential benefits school tends to favor the tactics of applying penalties and sanctions to improve the commercial relations with China when bilateral agreements or established policy interests of the United States are violated, e.g., violation of agreements and understandings on protection of intellectual property rights of U.S. enterprises. This school of thought favors use of penalties or sanctions to induce a change in behavior that is perceived as injurious to U.S. interest. In earlier historical parallels to current imposition of penalty tactics, the United States imposed agricultural and energy equipment embargoes on the Soviet Union because of the invasion of Afghanistan and violation of accepted human rights norms, e.g., by trial of dissidents or imprisonment of American citizens without cause. While some dispute that any success claimed from previous use of penalty tactics in the Soviet period validates their use in relations with China, that policy and its legislative framework fostering the use of sanctions and penalties has carried over to date.

Unilateral U.S. action is supported by many in this school-of-thought on grounds that prompt definitive action is needed to deal effectively with an issue that other Western countries in Europe or Asia and international organizations will not or cannot deal with

promptly and effectively. This school-of-thought assumes U.S. sanctions will eventually be effective in forcing Chinese compliance, despite allies' exploitation of U.S. export losses, because we have leverage due to the size and the importance of our markets. Moreover, it is argued that sanctions, even when imposed in areas where competitive foreign availability is extensive, are necessary to protect our national interests because only the U.S. has the power and will to take prompt and effective punitive action. Further, as other Western countries are subjected to Chinese protectionist and intellectual property malpractices, they will tend to join the U.S.

The threat of sanctions, according to this school-of-thought, is a necessary and effective bargaining tool that does not lose its effectiveness when not applied but remains an available option, e.g., if a deadline for action is reached but punitive action is postponed or not taken. Penalties, publicly announced, may be necessary to draw serious attention from the Chinese leadership, and demonstrate resolution on the part of the United States to obtain concessions that run counter to Chinese national leadership's inclinations. Some would note that success of recent negotiations on intellectual property rights show the effectiveness of this approach.

A parallel to the credible threat of unilateral action when deemed necessary is that of public diplomacy. Some argue that transgressions should be publicly decried with clear indications of a time for remediation and penalties for non-compliance. It is argued that private diplomacy may encourage continued non-compliance with accepted norms of commercial or political behavior and that publication of the dispute increases the leverage of the United States when reinforced by stated conditions and explicit timing of remediation. Such public diplomacy may be especially relevant if all other courses of action have been exhausted and no other course of action is available but the penalty route.

#### SECOND SCHOOL-OF-THOUGHT: MUTUAL BENEFITS THROUGH COMMERCIAL RELATIONS: CONDITIONALITY AND REWARD WITHHOLDING

This school-of-thought tends to stress the mutual benefits to both China and the United States in its strategic assessment of the mutual utility of commercial relations and this approach tends toward multilateral agreements including China and the United States, with use of conditionality and reward withholding tactics.

The gains to China from market driven commercial relations with the United States are significant, even crucial to the Chinese considering the broad range of commercial benefits including technology and corporate management culture transfer, financial flows and market access. Access to an open U.S. market has been crucial or essential to such economies as Japan, South Korea, Taiwan, Hong Kong, and Germany in meeting their earlier growth expectations. China may be even more dependent on open access to the U.S. market. Likewise, a Chinese economy becoming a full market economy with open markets may provide the United States with the largest commercial growth opportunity in the future global economy. Some in this group argue that Chinese markets are more open to the United States than Japanese markets were at a comparable level of development. The marginal increase in job creation and profitability for the United States from prospective commercial

relations with China may be a crucial margin for profit or loss in several economic sectors, as access to China's markets could affect the long-term competitiveness of many industries in the United States. While the Chinese market is important for many U.S. exporters, U.S. consumers also benefit from competitive imports from China. Moreover, it is in China's interest to open its trade regime and protect intellectual property rights (IPR) because it will reciprocally promote efficiency and higher living standards. Hence, trade liberalization in China would benefit both countries. Whether the United States or China benefits absolutely or relatively more, is difficult to judge. This school-of-thought does not appear to be concerned about these relative gains as long as both sides gain the benefit that is normal in the historical context of free trade regimes.

This line of strategic assessment tends to view China as a rudimentary market economy with developing pluralism and a nascent rule of law that provide some system complementarity with the United States and other Western democratic market states. While national interests diverge and system differences are still important, the interplay is more a positive sum calculus than a zero sum game, i.e., policy motivations of Chinese leadership are likely to be in concert with many of ours while important differences nevertheless obtain. In this context the Brezhnev Soviet Union and the United States in the 1970s were inherently more confrontational and less complementary to the point that one could say the systems were antithetical. The system difference between the Chinese development under Deng is on balance less confrontational and more complementary to U.S. national interests and values. While the Soviet economic system was an autocratic military power with a command economy controlled by the centralized Communist Party, China appears more of a decentralized, rudimentary market economy. The majority of current U.S. commercial legislation relevant to China was aimed at dealing with the threat from the Soviet Union—a threat that would have been enhanced by normal Western commercial relations. This continuity of the legislative and policy framework should not be assumed to imply that the effectiveness of penalty tactics against the Soviet Union are wisely applicable to China.

Moreover, some would argue that lessons "learned" from Soviet-U.S. relations may not be suitable to the Sino-U.S. relationship, others would argue that the strategy was ineffective when used in Soviet-U.S. relations. The linkage of all elements of national policy as applied to the Soviet Union in the 1970s may not be appropriate for dealing with China. The internal pressure within China is strong from elite groups who see the development of a full market economy as in their self-interest as well as that of China as a whole; these Chinese pressures for change may have greater influence than external pressures toward developing a more pluralistic system influenced by rule of law. Encouraging such reform pressures in China may be a constructive means for reducing civil and human rights violations and reducing the use of violent means of governing China at home and abroad. Some in this school see China's joining the global community as an opportunity through cooperative relations to incorporate China as an active participant in

the global economy with a democratic market system under a rule-of-law. Some in the international community are convinced that democratic and market development are intrinsically bound together and success in transition to the market is complementary to success in developing a democratic system under a rule-of-law. Others in Asia seem to associate more with the Singapore model of more market and less pluralism in the transition—a view that many conservatives in China seem to prefer.

This school of thought tends to favor a tactical approach that differs from the first school in important regards. Multilateral agreements in international organizations such as IMF, World Bank, WTO that include Chinese officials in decisionmaking and provide for Chinese delineation of responsibilities and obligations are a preferred mechanism. In this context benefits from agreements and surveillance participated in by all parties and rewards that are dispensed on a conditional basis are more effective tactics. If performance falls short of agreed targets, then funds will be withheld below agreed levels or commercial benefits will not flow; this tactical approach is noted above in the description of the IMF approach.

It is argued historically that the effectiveness of Western leverage on the Soviet Union was gained in security, economic and human rights affairs through multilateral mechanisms such as the Commission on European Security and Cooperation (CSCE), and the Bretton Woods institutions, (IMF, World Bank). Unilateral tactics that involved penalties and sanctions in the past, were usually ineffective, even counterproductive. The on-again, off-again approach of some sanctions were referred to critically in the U.S. policy circles in the 1970s as the “light switch” approach. Moreover, foreign availability was invariably sufficient to make unilateral sanctions such as embargoes on grain sales and energy equipment supply ineffective in the target country, but injurious to U.S. interests. The phrase “we shot ourselves in the foot” criticism is recalled.

Public diplomacy, especially with precise announced deadlines and predicated consequences based on historical experience, are believed by this school-of-thought to be of limited value and often counterproductive. Their reading of the experience with the Soviet Union is that “public diplomacy” often weakened the intended effect and had limited impact on the intended target, fueled nationalistic resistance to perceived foreign intervention, and adversely affected intended beneficiaries, including U.S. enterprises. Deadlines and penalties opened the public diplomacy to embarrassment of the United States if the deadlines were reached without follow through on the penalties. The “critical bottleneck” export school of penalties is faulted in that there has been generally negative experience in efforts to find and control the critical export that would create unbreakable bottlenecks. In the late 1970s and early 1980s, some U.S. policymakers felt we had control of the supply of critical energy equipment—drilling bits and gas pipeline compressors—that could seriously limit the Soviet’s ability to produce more oil and transport more gas. By embargoing these specific exports, some senior officials argued it would influence Soviet actions. Those experiences suggest we overestimated our ability to influence policy by attempt-

ing to control "critical bottleneck equipment." The Soviets imported from elsewhere, perhaps at higher cost or less quality, but satisfactorily, and did not change their policy. Again significant foreign availability usually provided alternative sources of supply for even the most specific and critical products or processes and allowed the target country to play our allies off against U.S. interests. Moreover, the process of publicly restricting U.S. firms in trade has often encouraged competition from foreign suppliers and increased the possibility that U.S. enterprises would lose market share without a commensurate gain to our national interest. Still, Soviet inability to access or use U.S. technology across the board may have seriously impaired the USSR over time.

#### NEW STRATEGIC ASSESSMENTS AND STRUCTURED DIALOGUES WITH CHINA

In response to the calls in the Congress, the executive branch, the business community, and the public for a new, more effective strategy, a number of steps seem appropriate and may be under way.

- *A reevaluation of the strategic assessments and tactical mechanisms seems appropriate.* Are the right questions being asked? Are the answers based on opinions and feelings or documented research? Are the strategic assessments internally consistent and appropriate to the tactical mechanisms favored? Is there a "historical drag" or a beneficial legacy from the legislative framework and policies established to deal with the United States and the Soviet Union rivalry of the Cold War period?
- *A new comprehensive strategy should provide an umbrella for dealing with China on all major issues relating commercial and economic consideration to political, foreign policy and security issues.* A focus on the future would seem appropriate. What kind of China is developing to the year 2010? How do and will our interests and those projected for China differ and complement each other?
- *A structured dialogue with Chinese leaders in government and in their private sector may be appropriate and informative.* Can the informal dialogues of international agencies, American professionals and others be expanded and formalized with the U.S. executive branch and congressional leaders engaged in fruitful periodic, scheduled meetings with Chinese counterparts? There are a number of bilateral links between the United States and China. The current interest suggests revitalizing them. Would the Gore-Chernomyrdin Commission be a useful prototype? That binational commission with Russia headed by Vice President Gore and Prime Minister Chernomyrdin has subgroups on agribusiness, business development, defense conversion, energy policy, environment, health, science and technology and space each headed by a secretary or departmental head on the U.S. side and Russian equivalent. The United States also has binational commissions with South Africa and Egypt.<sup>26</sup> Would international structured dialogues be useful

<sup>26</sup> State Department briefing by Deputy Secretary of State Strobe Talbott and National Security Advisor to the Vice President Leon Fuerth. July 12, 1996.

supplements, e.g., U.S., Chinese, Japanese, and Russian discussions. How would they relate to Asian-Pacific Economic Cooperation (APEC) and other international organizational dialogues?

With such structural, revitalized dialogues with China as appear possible, we may wish to ask for constant research and dialogue to review our alternative strategy assessments and tactical mechanisms.

The questions more specifically considered in new strategic assessments and tactical reappraisals of the two schools are as follows.

1. What are the relative benefits and costs of integrative changes in commercial relations including trade, technology transfers, financial flows to and from the People's Republic of China, the United States, and other trading partners? Is the projected level and quality of commercial relations between China and the United States likely to have significant or minimal impact on overall economic performance in either China or the United States or both?
2. What is the nature of the interaction between the systems of governance in China and the United States, e.g., is it an unbalanced conflict between an autocratic political system utilizing market energies and imported technology to become a superpower vs. a democratic market system under a rule-of-law, or should the Chinese system be characterized as an increasingly pluralistic, rudimentary market system with a nascent rule of law?
3. What linkage between commercial, political, security and human rights policy exists in China and the United States that provides a basis for influencing policy outside the economic and commercial sector by leverage through commercial constraints? Can and should the United States seek to influence China on issues outside the economic and commercial sectors, such as human rights, through commercial restraints and open communications?

The tactical questions considered in each school-of-thought include the following.

1. Are the threats of penalties and sanctions affecting commercial flows more effective than rewards denial through conditional agreements with mutual surveillance of respective commercial practices? This reward denial approach is illustrated by the negotiations of the IMF with members who seek to obtain monetary support for reforming their monetary and financial systems: the recipient country presents a proposal that, if accepted, becomes the basis of the program on the pattern of dispersal, and the criteria for judging compliance. Funds may then be dispersed periodically if performance is satisfactory. Satisfaction of performance criteria is determined by surveillance or assessing compliance. If there is not compliance the funds (rewards) are denied or delayed.
2. Are unilateral or multilateral applications of restrictive measures more or less effective? Are multilateral restrictions fea-

sible? Should the measures imposed unilaterally be ad hoc, timely and tailored to a particular issue or event, or should measures imposed be multilateral, administered within an international agreement, or institutionally-based with built-in conflict resolution mechanisms? A penalty tactic would be use of Section 301 in U.S. trade legislation which provides for unilateral notice of violations of norms or agreements followed by penalties. The accession process to the World Trade Organization and access to its multilateral dispute resolution mechanism is illustrative of the reward withholding tactics. In assessing the relative advantages of the unilateral penalty approach and the multilateral reward withholding approach, some suggest dealing with the use of trade concession (MFN) and admission to the WTO as part of a package in negotiating at the highest level on U.S.-China commercial relations. We might, it is argued, suggest a half dozen key issues from accession to WTO to the Chinese that the U.S. would support in this multilateral body. If China would agree to the accession criterion, we would make a determination that they are in compliance with our MFN criteria, thus eliminating the annual review requirement.

3. Is public diplomacy with use of publicly announced deadlines and penalty consequences more effective than private diplomacy focusing on international mediation?

These questions currently discussed in U.S.-Chinese relations were debated for years in U. S.-Soviet, East-West commercial relations. What are the lessons, if any, to be drawn from those earlier experiences? Have the context and players shifted enough that the lessons from that struggle have little to tell us here and now? The perceived lessons may be relevant to assessments of the viability of legislation still on the books and policy that carries over from that period of Cold War confrontation to current policy with China.

From this process of reassessment and structural dialogue we may find means for building aspects of the current schools-of-thought. At a summitry level we might wish to negotiate a compliant of conditions for not only promoting Chinese accession to the World Trade Organization but its participation in their reciprocal rules based mechanism. This active role in the multilateral organization may relieve the need for monitoring bilateral extension of normal trading relations, i.e. MFN.



# SEEKING INTEGRATION AND DETERRENCE—THE U.S. ROLE IN SHAPING CHINA'S FUTURE

By Robert G. Sutter \*

## CONTENTS

	Page
Summary .....	499
Seeking Integration and Deterrence—The U.S. Role in Shaping China's Future .....	499
China's Future Foreign Policy .....	501
Internal Variables .....	502
External Relations .....	504
Role of U.S. and U.S. Policy Choices .....	505
Post-Cold War U.S. Foreign Policy .....	506
A: A Cautious Approach .....	507
B: Cutbacks in U.S. Involvement .....	508
C: More Active U.S. Policy .....	509
U.S. Policy Approaches to China .....	510
Outlook for U.S. Policy .....	511

## SUMMARY

A basic question for U.S. policy is how to deal with these and other manifestations of China's rising power and influence in world affairs. In particular, U.S. policymakers tend to choose between a range of policy options that they hope or believe will have the effect of integrating China into the world order and/or deter China from actions seriously disruptive of the world order.

Whether one places emphasis on the ability of U.S. policy to affect Chinese foreign policy behavior depends on one's view as to how much influence the United States exerts vis-à-vis China. It also depends on how compatible or incompatible the U.S. efforts are in regard to China's overall foreign policy goals; and how well organized or disorganized U.S. policymakers are in attempting to achieve their goals of getting the rising China to conform to established international norms.

## SEEKING INTEGRATION AND DETERRENCE—THE U.S. ROLE IN SHAPING CHINA'S FUTURE

China's provocative use of force in the Taiwan Strait to intimidate voters in Taiwan's first presidential election on March 23, 1996, headed the list of Beijing's deviations from U.S.-backed international norms in early 1996. Other major issues included the estimated \$2 billion in annual losses U.S. firms suffer as a result of

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China's continued and growing violations of U.S. intellectual property rights, despite past Chinese government agreement to halt such violations; China's reported continued close cooperation in Pakistan's widely noted effort to build a nuclear weapons capability; reports of China's sale of advanced surface-to-surface missiles and related technology to such troubled areas as Iran and Pakistan; and Beijing's hard line stance toward any signs of political dissent or advocacy of greater human rights in China.<sup>1</sup>

Against the backdrop of a deluge of media criticism and congressional and other pressures on the Clinton Administration's avowed policy of comprehensive engagement with the People's Republic of China (PRC), the Administration in early 1996 toughened the U.S. posture toward China. Specific steps included deploying two U.S. carrier battle groups to the Taiwan area coincidental with the PRC military exercises in the region in March 1996; postponement of the planned visit of China's defense minister to the United States; temporary suspension on approval of U.S. Export-Import Bank financing for new U.S. projects in China, pending a thorough review of U.S. options to deal with reported Chinese exports of nuclear weapons technology; and other measures. The Administration endeavored to underline its dissatisfaction with recent Chinese behavior while trying to find common ground to sustain a longer term engagement with China through a series of recent or anticipated discussions with senior PRC leaders. Notably, President Clinton reportedly sent a letter to China's leaders with newly appointed U.S. Ambassador James Sasser in January 1996, requesting such a dialogue, and the Chinese responded in part by sending in March 1996, the PRC State Council's senior foreign policy expert to the United States for extensive discussion with executive branch and congressional leaders.<sup>2</sup>

Congressional opinion was not assuaged by the Administration's actions, and Congress sought additional measures to reinforce the U.S. posture against China's infractions of international norms. The House and Senate passed separate non-binding resolutions expressing support for Taiwan in the face of PRC intimidation. Many Members strongly concerned with Chinese infractions on nuclear and missile proliferation and on important trade issues like intellectual property rights were adamant in hearings, public statements, and private communications with the Administration that more needed to be done in order to end Beijing's egregious violations of accepted world norms. The House and the Senate also passed the 1996-1997 State Department authorization bill (H.R. 1561) that contained over one dozen provisions targeted directly or indirectly on strengthening U.S. opposition to PRC government practices on issues ranging from Taiwan to Tibet, and from human rights to the World Trade Organization (WTO) membership.

President Clinton vetoed H.R. 1561 and the veto was sustained by the House on April 30, 1996. After reaching an understanding with Chinese officials on reported Chinese exports of nuclear weapons related technology to Pakistan, the President in May 1996 lifted the suspension of U.S. Export Import Bank financing, but he

<sup>1</sup> For background, see, Dumbaugh, Kerry, *China-U.S. Relations*, CRS Issue Brief 94002 (updated regularly).

<sup>2</sup> Interviews with PRC Embassy and U.S. Government officials, March 1996.

also began formal procedures threatening over \$2 billion in trade sanctions unless China took further measures to curb intellectual property rights violations—a deadline of June 17 was set. A U.S.-PRC agreement was reached on June 17, avoiding the need to impose sanctions. On May 20, 1996, the President announced that he would grant on June 3 the annual waiver that allows Chinese imports Most-Favored-Nation (MFN) tariff treatment by the United States, setting the stage for the annual congressional debate on the pros and cons of the move and on the broader direction of U.S. relations with China. Senate Majority Leader and Republican presidential candidate Bob Dole added to the debate with a speech on May 9 that was sharply critical of the Clinton Administration's "vacillation" on China policy, though also supportive of continued MFN for Beijing. The House voted to sustain the President's decision on MFN on June 27, 1996.

These events underline the basic question for U.S. policy—how to deal with China's increasing power. This essay assesses the degree of U.S. influence on China's future behavior and the likelihood of U.S. leaders using that influence effectively.

### CHINA'S FUTURE FOREIGN POLICY

In many important respects, Chinese leaders since the late 1970s have followed generally pragmatic policies that have integrated China's economy more closely with the rest of the world. The result has been a foreign policy seeking greater economic advantage in order to improve the material standard of living of the Chinese people and to increase support for continued Chinese communist rule. Seeking economic advantage has prompted Chinese leaders to be more flexible than in the past on differences with neighbors and to curb action disruptive to the prevailing status quo in Asian and world affairs.

The outlook for Chinese foreign policy over the next 5 to 10 years remains uncertain. Optimists in the West tend to extrapolate from the pragmatic trends seen in Chinese foreign policy behavior since the death of Mao and the rise of pragmatic nation-building policies of Deng Xiaoping. They argue that the logic of post-Mao foreign policy will continue to drive Chinese leaders in directions of greater cooperation, accommodation and interdependence with the outside world, and especially China's neighbors and the advanced developed countries led by the United States. The most optimistic reason is that as China becomes economically more advanced, it will undergo social and eventually political transformation that will result in a more pluralistic political decisionmaking process in Beijing that will act to check assertive or aggressive Chinese foreign actions or tendencies. Moreover, as Beijing becomes more economically interdependent on those around China and the advanced developing countries, it will presumably be less inclined to take aggressive or disruptive actions against them.

These optimists see ample evidence at present to support their opinion. They cite for example the fact that PRC leaders continue to give top priority to economic development rather than military expansion or political assertiveness; that PRC leaders often have been flexible in accommodating international economic norms in order to benefit from the international economic system; and that

PRC leaders have also shown more flexibility in dealing with sensitive security and political issues through multilateral organizations like the Asean Regional Forum and through bilateral talks and exchanges with other countries.<sup>3</sup>

Pessimists in the U.S. and elsewhere in the West are more inclined to focus on the strong nationalistic ambitions and intentions of the Chinese leaders, including officials of the People's Liberation Army (PLA). They are often struck by the strong nationalistic views of at least a segment of PRC leaders in the past few years who voice deep suspicion of U.S. pressures directed against China. These Chinese leaders see these U.S. pressures and other U.S. policies, such as support for Taiwan, as fundamental challenges to China that must be confronted and resisted.

In the past, Chinese nationalistic ambitions ran up against, and were held in check by, U.S.-backed military containment or Soviet-backed military containment. Later, Beijing's need for advantageous foreign economic interchange to support economic development at home, and thereby legitimate continued communist rule in China, caused it to curb assertive, nationalistic behavior abroad. But the pessimists believe that Beijing has now or will soon reach a point of economic development where it will no longer need to cater so much to outside concerns. For example, the government in Beijing may have reinforced its political legitimacy by its record of material progress in recent years. And China's economy has become such a magnet for foreign attention that the Sino-foreign tables could be reversed—that is, foreign countries now will feel an increasing need to accommodate China or risk being closed out of the booming China market, rather than China feeling a need to accommodate foreign interests.<sup>4</sup> China is now widely acknowledged as a world-class economic power and possibly a nascent superpower. None of this is unrecognized by China's leadership.

Whether China will follow the path of the optimists or pessimists, or some other future course, will depend heavily on two sets of factors.

1. Internal—political stability and the course of economic and political performance;
2. External—the interaction of Chinese relations with key states around its periphery and Chinese adjustment to international trends in the so-called “new world order.”

#### INTERNAL VARIABLES

Developments inside China that could cause a shift from pragmatism to a more assertive and disruptive emphasis on nationalism in Chinese foreign policy are:

- A major economic failure or change in political leadership. These could prompt Beijing leaders to put aside their current approach to nation-building and adopt a more assertive foreign policy; this could be accompanied by harsher reactions to inter-

<sup>3</sup> Discussed, among others, in Zhang, Ming, “China and the Major Power Relations,” *The Journal of Contemporary China*, Fall 1994.

<sup>4</sup> Discussed, among others, in Chong-Pin Lin, “Chinese Military Modernization: Perceptions, Progress and Prospects,” *Security Studies*, summer 1994.

nal dissent and to Western influence in China, and by aggressive initiatives by the Chinese military in nearby areas.

- The achievement of such a high level of economic success and social-political stability that Chinese leaders would feel confident that China was strong enough to pursue its interests in the region and elsewhere with less regard for the reaction or concerns of other countries.

Some have argued that it might be good for Asian and world stability if China continued to make progress toward economic modernization, but failed to achieve a sense of comprehensive success.<sup>5</sup> Under these circumstances, Beijing leaders would likely continue to see their interests as best served by pursuing a moderate, conventional nation-building program. They would likely remain preoccupied with the difficulties of internal modernization and would not achieve the level of success that would allow for a more forceful policy in Asian and world affairs for some time to come.

An examination of variables governing China's development and reform efforts suggests that Beijing appears to face such future prospects. Beijing leaders are unlikely to achieve fully their current development objectives for some time because of significant economic constraints, the complications from efforts to implement proposed reforms, and leadership and political instability. Major short-term economic constraints include an inadequate transportation system, insufficient supplies of electric power, an expanding government spending deficit, money-losing state enterprises, and a shortage of trained personnel. Long-term impediments include growing population pressure, pollution, the difficulty of obtaining enough capital to develop available energy resources and general industry, and the slowdown of agricultural growth after the rapid advances in the recent past.<sup>6</sup>

Reflecting these and other important constraints, the Chinese leadership at present continues to delay some changes in economic restructuring because it fears they would have serious consequences for Chinese internal stability. Such changes can trigger inflation, speculation, and hoarding. Closing inefficient factories forces workers to change jobs and perhaps remain unemployed for a time. Decentralized economic decisionmaking means that local managers can use their increased power for personal benefit as well as for the common good. The result of these kinds of impediments has been a zig-zag pattern of forward movement and a slowdown in economic reforms.

The problems of political stability focus on leadership succession—as principal leader Deng Xiaoping's health slowly fades—and the difficulty Beijing has in trying to control students, workers, and others demanding greater accountability, less corruption, or other steps that would curb central authority. The repeated political difficulties over the results of the economic reforms and political measures continue to demonstrate the volatility of politics in China.

<sup>5</sup> Reviewed in *China in Transition*, CRS Report 93-1061S, December 20, 1993, 23 p. Of course, among other arguments are those that stress that an economically successful China would be very closely integrated with and dependent on the world economy, and would not be disruptive in world politics.

<sup>6</sup> See among others, *China's Changing Condition*, CRS Issue Brief 93114 (updated regularly).

Of course, the widely publicized difficulties of the reform efforts sometimes obscure their major accomplishments and the political support that lies behind them. Reflecting the rapid economic growth in China over the past 18 years, the constituency favoring economic reform includes representatives of coastal provinces, enterprise managers, prospering farmers, many intellectuals, and technically competent party officials. The major alternatives to current policies (e.g., Maoist self reliance, Soviet-style central planning) have been tried in the past and have been found wanting. Some of the followers of purged party leader Zhao Ziyang provided an alternative favoring greater political as well as economic reform, but thus far no leader has emerged with a program with viable support or constituency able to lead China in a direction markedly different than the current Communist Party-led development effort. Thus, on balance, it appears likely that Beijing will remain focused on economic reform while stressing the need for political stability, even in the event of strong leadership and political disputes and economic complications in the next few years. Nevertheless, analysts are sometimes concerned about what they see as Chinese assertiveness and the actions of the PLA in areas near mainland China in the post-Cold War order in Asia.

#### EXTERNAL RELATIONS

The foreign powers around China's periphery and those who have an important role to play regarding Chinese interests in international organizations, trade and global issue could influence the course of China's future in several ways. Some may adopt policies on issues sensitive to Beijing that would prompt Chinese leaders to subordinate pragmatic interests for the sake of protecting Chinese territorial or other national claims. Most notable in this regard are outside challenges to China's claims to disputed territories. In the case of Taiwan, for example, if the leaders in Taipei were to formally declare independence from the mainland, Beijing might be hard put not to follow through on its repeated pledge to use force to stop such a development. The PLA's exercises near Taiwan in 1995-1996 seemed to reinforce this point. And in the case of disputed claims to islets in the South China Sea, Chinese naval forces could be expected to respond promptly to any effort by Vietnam or others to expand their territorial holdings by force.

On global economic issues, there is uncertainty as to how far the Chinese government will go in compromising with or retaliating against the U.S. and others unless China is allowed expeditiously to enter the WTO.<sup>7</sup> What is clear, however, is that a major shift toward protectionism among the developed countries would clearly undermine the basis of China's export-led growth. It could lead to a major shift in China's foreign policy, away from continued cooperation with the developed countries. By the same token, if foreign powers were to appear to "gang up" against China and impose sanctions because of PRC arms exports, human rights or other policies, this too might prompt a serious Chinese reevaluation of the costs and benefits of cooperation with the international status quo.

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<sup>7</sup> Discussed, among others, in CRS Issue Brief 94002.

In contrast to those who argue against heavy or provocative external pressure on China are those who argue against the dangers of appeasement or weakness in the face of China's growing strength. Even those who want foreign countries to "engage" closely with China often add that this must be done from a firm position. As a Trilateral Commission Study concluded: "a cooperative approach may not elicit a constructive Chinese response . . . the strength and prosperity of the Trilateral Countries—not their weakness—generate Chinese respect. Such classic considerations as balance of power, realism and a keen sense of Trilateral interests must also govern Western and Japanese thinking about China."<sup>8</sup>

#### ROLE OF U.S. AND U.S. POLICY CHOICES

Caught up in the drama of the recent changes inside China, Western specialists and other observers have understandably focused on internal variables and factors as the most important determinants of China's future. Indeed, most foreign powers, led by Japan, Russia, India, the Association of Southeast Asian Nations (ASEAN) states and others around China's periphery have appeared willing in recent years to accommodate and work with China, and to avoid actions and pressures that could prompt a sharp adjustment or shift in Chinese policy or a change in China's future policy orientation.

This has not been the case for the United States. U.S. policy now intrudes on such a wide range of issues sensitive to Beijing and to the future of China's policy as to represent perhaps the most critical current variable in determining China's future direction.

- The United States clearly has it within its power through trade sanctions or protectionist trade measures to seriously complicate PRC economic development plans.
- The United States has the option at this time to instigate or exacerbate regional security tensions over China's rising power in ways that could seriously complicate China's desire for an accommodating security environment in the region.
- The United States also plays a key role in such sensitive territorial questions for the PRC leadership as Taiwan, Tibet, Hong Kong, and the South China Sea. Any PRC leadership that does not handle these issues appropriately is widely seen as vulnerable to challenges from others in the communist hierarchy. Beijing's leaders view of the challenges posed by such territorial problems also is seen as going far toward determining PRC willingness or reluctance to associate closely with outside powers and develop an interdependent approach to world affairs.
- Sharp tensions in U.S.-China relations would presumably force key countries in the region like Japan, South Korea, Russia and Australia, and key international actors like the international financial institutions that provide several billion dollars of aid to the PRC annually, to feel the need to choose between Washington and Beijing on important issue choices with

<sup>8</sup>Funabashi, Yoichi, et. al., *Emerging China In A World of Interdependence*, Trilateral Commission, May 1994.

unpredictable and potentially serious implications for China's ability to sustain a cooperative foreign environment.

By the same token, the United States also appears to have a potentially large influence on encouraging China to engage with the world in a positive and constructive way. With its superior military strength and intelligence capabilities, the United States could take the lead in reassuring Asian states over China's growing military power and at the same time reassuring China of the regional response to China's rise. As the world's largest economy, the United States can play a very important role in determining the most constructive ways to engage the Chinese economy in the WTO and other multilateral economic organizations. U.S. policy on issues like Taiwan, Tibet, Hong Kong, the South China Sea, and other territorial questions sensitive to Beijing could be conducted in ways that encourage constructive PRC responses to accepted international norms. Similar arguments can be made regarding U.S. policy toward trade, proliferation, human rights, environment, and other questions now at the center of U.S. interaction with China.

In a word, a case can be made for the argument that for the time being, the United States has it within its power to move the direction of PRC policy in one way or the other. Whether U.S. policymakers realize their influence and what they propose to do with it remains to be seen.

There is general agreement in the United States that Washington should use its influence in order to have Beijing conform to international norms and over time to foster changes in China's political, economic, and security systems compatible with American interests. At the same time, there is little agreement in Washington on how the United States should achieve these objectives.<sup>9</sup> An effective U.S. policy toward China, whether tough or accommodating, may not be likely in the near future. There may be too much uncertainty in the conduct of U.S. foreign policy in the post-Cold War environment to allow for such an organized American approach. There are many reasons for this knotted situation in U.S. foreign policy.

#### POST-COLD WAR U.S. FOREIGN POLICY

Numerous issues and variables affecting U.S. policy make it difficult to chart the general direction of U.S. policy. The task is made all the more difficult because the previous framework for U.S. policy, based on the primacy of security issues and opposition to Soviet expansion, is now obsolete. Imperatives of economic competitiveness, democracy, human rights, and other values have achieved greater prominence in U.S. policymaking. The ability of the executive branch of government to use the argument of U.S. strategic competition with the Soviet Union as a means to keep foreign policymaking power in its hands is also at an end. American policymaking will likely reflect more sharply the pluralistic nature of U.S. society and the various pressure groups and other representative institutions there for some time to come. History has shown that this fluidity and competition among priorities is more often

<sup>9</sup>The following analysis is taken heavily from Robert Sutter, *Shaping China's Future in World Affairs*, Westview Press, Boulder, CO., 1996, pp. 69-84.



than not the norm in American foreign policy. Presidents Woodrow Wilson and Franklin Roosevelt both set forth comprehensive concepts of a well-integrated U.S. foreign policy, but neither framework lasted long. The requirements of the Cold War were much more effective in establishing rigor and order in U.S. foreign policy priorities, but that era is now over. In retrospect, it appears as the aberration rather than the norm in the course of U.S. foreign policy.

In general terms, there appear to be three distinct tendencies or schools of thought concerned with U.S. foreign policy after the Cold War. Although contemporary U.S. foreign policy advocates cover a wide range of options and issues, one can discern these three approaches. By understanding what these schools stand for and observing the actions of U.S. policy in specific areas regarding China, one can get a better sense as to how difficult it will continue to be to predict the future direction of U.S. policy toward China.

#### A: A CAUTIOUS APPROACH

On one side are Americans who are concerned with what they see as a relative decline in U.S. power that gets in the way of U.S. efforts to protect important interests abroad. They call for the United States to work harder to preserve important interests abroad, but with fewer U.S. resources and less U.S. influence available to do the job. These leaders' review of recent developments causes them to expect further changes in world affairs, sometimes in unexpected ways. They see relatively limited or declining U.S. power and influence to deal with those changes.

They stress in particular several "realities" governing the current U.S. approach to Asia and the Pacific and world affairs in general:

- U.S. attention to China, Asia and the Pacific and elsewhere abroad has been diverted by the need to focus on pressing U.S. domestic problems.
- U.S. government decision making will remain difficult because of the possibility that the executive branch will remain in control of one U.S. political party, and the Congress in control of another party.
- The U.S. government and the U.S. private sector have only limited financial resources to devote to domestic and foreign policy concerns.
- The priorities in U.S. policy toward China and elsewhere will remain unclear. Security, economic, and cultural-political issues will vary in receiving top priority in U.S. policy.
- There remains no obvious international framework to deal with foreign issues. U.S. policy must use a mix of international, regional, and bilateral efforts to achieve policy goals.

Under these circumstances, these advocates see a strong need for the United States to work prudently and closely with traditional U.S. allies and associates. Their cautious approach argues, for example, that it seems foolish and inconsistent with U.S. goals not to preserve the longstanding U.S. stake in good relations with Japan and with friends and allies along the periphery of Asia and in Oceania. Their security policies and political-cultural orientations are generally seen as in accord with U.S. interests. Although

opinion surveys in the recent past sometimes claimed that the American public and some U.S. leaders saw Japan as an economic "threat" to U.S. well-being, these observers stressed a different line of argument. They highlighted the fact that few polls of U.S. public opinion or U.S. leaders supported the view that it was now in America's interest to focus U.S. energies on the need to confront the Japanese economic threat, in a way that confrontation with the Soviet Union came to dominate U.S. policy during the Cold War.

In the view of these advocates, caution is in order in anticipating future U.S. relations with other major regional actors—the former Soviet Union, China, and India. All three are preoccupied with internal political-development crises. Few appear to be seeking to foment tensions or major instability in the region. All seek better ties and closer economic relations with the West and with the advancing economies of the region. U.S. policy would appear well advised, they say, to work closely with these governments wherever there is possible common ground on security, economic, or political issues.

In considering U.S. assets available to influence trends in the Asia-Pacific region, these advocates call on U.S. leaders to go slow in reducing U.S. military presence in the region. The economic savings of such a cutback would be small; the political costs could be high inasmuch as most countries in Asia have been encouraging the U.S. to remain actively involved in the region to offset the growing power of Japan or the potential ambitions of China or others.

#### B: CUTBACKS IN U.S. INVOLVEMENT

A second major school of thought on U.S. foreign policy emerged in the 1990s. These proponents have argued for major cutbacks in U.S. international involvement and a renewed focus on solving U.S. domestic problems concerning crime, drugs, lagging economic competitiveness, and educational standards, homelessness, poverty, decaying cities and transportation infrastructure, and other issues. Variations of this view are seen in the writings of William Hyland, Patrick Buchanan, and other well-known commentators, and in the political rhetoric of Ross Perot.

Often called an "American First" or "Neoisolationist" school, these advocates argue for sweeping cuts in U.S. military, diplomatic, and foreign assistance spending abroad. They are skeptical of the utility of the international financial institutions, the United Nations, and the international efforts to promote free trade through the GATT, WTO, and other means. They argue that the U.S. has become overextended in world affairs; has been taken advantage of in the current world security-economic system; and must begin to retreat from international commitments in order to gather together the resources needed to deal with American domestic problems. As to specific recommendations, these proponents tend to favor a complete U.S. pullback from foreign bases; drastic cuts in foreign assistance and foreign technical/information programs; and termination of various international economic talks that help to perpetuate a world trading system, which they see as basically contrary to American economic interests. Many in this school favor stronger government intervention in the domestic U.S.

economy and related areas of promoting technology, education, and social welfare. Some favor trade measures that are seen as protectionist by U.S. trading partners.

#### C: MORE ACTIVE U.S. FOREIGN POLICY

Meanwhile, on the other side of the debate lies a third, somewhat less well articulated school of thought. This school of thought generally judges that U.S. policy needs to more strongly and actively promote U.S. views of the world political, military, and economic order; to press those countries that do not conform to the U.S. view of an appropriate world order; and to lead strongly in world affairs, attempting to avoid compromises and accommodations with others that would reduce the impact and strength of U.S. leadership.

This school of thought has always been present in American politics. But it appears far stronger today than at any other time since at least the 1960s for several reasons:

- *Impact of Reagan policies*—After a prolonged period of introspection and doubt following the Vietnam War, the oil shocks, and the Iran hostage crisis, U.S. opinion became much more optimistic about the United States and its future after two terms of Ronald Reagan.
- *Victory in the Cold War*—This represented a great accomplishment for the U.S.-backed system of collective security and for U.S. political and economic values.
- *Persian Gulf War*—U.S. military doctrine, equipment, and performance were strong; U.S. ability to lead in a world crisis also appeared strong.
- *Economic developments*—Although the U.S. is seen facing still serious difficulties, advocates point to analysts who are now more optimistic about U.S. ability to prosper in the increasingly competitive world economic environment.
- *Values-Culture*—The U.S. is seen as better positioned than any other country to exert leadership in all major areas of cultural influences: i.e., ideas and values, political concepts, life-style, and popular culture.

Further considerations giving impetus to this school of thought is the perception of a power vacuum in the world, in which the United States is more free to exert its influence. Thus, proponents of this viewpoint are not deterred by the seeming decline in economic resources available to U.S. policymakers. In particular, the former Soviet Union, China, and India are likely to remain internally preoccupied for some time. Meanwhile, Japan and Germany are acknowledged to be economically powerful; but politically they have shown themselves to be uncertain as to how to use their new power, and culturally they appear to be not nearly as influential as the United States.

In recent years, advocates of this third tendency have been most vocal in pressing their concern for strong U.S. policy in support of U.S. political values of democracy and human rights. In this regard they have sometimes argued for a more active U.S. foreign policy, leading some recipient countries to view U.S. policy as illegitimate interference in a country's internal affairs. They have also reinforced the strength of the U.S. in opposition to economic or trading

policies seen in the United States as grossly inequitable or predatory; and they have reinforced strongly the U.S. policy against the proliferation of weapons of mass destruction. Other areas where they have exerted more influence involve international sanctions against countries that harbor terrorists or promote the drug trade. They have also pushed the U.S. government to be more assertive in promoting humanitarian relief and in recognizing politically the legitimacy of people's right to self-determination.

In sum, it is not hard to see the evidence of clashes among these three, often competing tendencies in U.S. policy toward China. Most obvious in recent years have been those of the third group who have strongly pursued human rights, proliferation, trade practices and other issues with China. They have pressed Beijing hard to meet U.S. sanctioned international norms, threatening sometimes very serious economic or other sanctions if China did not conform. By contrast, the more cautious and accommodating first group sees the strong advocates of U.S. values and concerns as being unrealistic about U.S. power and unwilling to make needed compromises with the Chinese government and others in order to protect U.S. interests in relations with China.

#### U.S. POLICY APPROACHES TO CHINA

The three approaches that emerge from this complicated mix to influence current U.S. policy toward China are noted below. At present there is little indication as to which approach will ultimately succeed.

On one side is an approach favored by some in the Clinton Administration, the Congress, and elsewhere who argue in favor of a moderate, less confrontational and "engaged" posture toward China. Some in this camp are concerned with perceived fundamental weaknesses in China and urge a moderate U.S. policy approach out of fear that to do otherwise could promote divisions in and a possible breakup of China with potentially disastrous consequences for U.S. interests in Asian stability and prosperity. An increasing number are more impressed with China's growing economic and national strength and the opportunities this provides for the United States. They promote close U.S. engagement with China as the most appropriate way to guide the newly emerging power into channels of international activity compatible with American interests.

Sometimes underlying this moderate approach is a belief that trends in China are moving inexorably in the "right" direction. That is, China is becoming increasingly interdependent economically with its neighbors and the developed countries of the West, and is seen as increasingly unlikely to take disruptive action that would upset these advantageous international economic relationships. In addition, greater wealth in China is seen pushing Chinese society in directions that seem certain to develop a materially better-off, more educated and cosmopolitan populace that will over time press its government for greater representation, political pluralism, and eventually democracy. Therefore, U.S. policy should seek to work ever more closely with China in order to encourage these positive long term trends.

A second, tougher approach is that of some U.S. advocates inside and out of the U.S. Government who have doubts about the interdependence argument. These U.S. policy makers and opinion leaders stress that Beijing officials still view the world as a state-centered competitive environment where interdependence counts for little and compromises sovereign strength. China's leaders are seen as determined to use whatever means at their disposal to increase China's wealth and power. At present, Beijing is seen biding its time and conforming to many international norms as it builds economic strength. Once it succeeds with economic modernization, the argument goes, Beijing will be disinclined to curb its narrow nationalistic or other ambitions out of a need for international interdependence or other concerns for world community. When strong enough, China, like other large powers in the past, will possess great capabilities and will attract no few friends or allies.

Under these circumstances, this approach encourages U.S. leaders to be more firm than moderate in dealing with China. Rather than trying to persuade Beijing of the advantages of international cooperation, the United States is advised to keep military forces as a counterweight to rising Chinese power in Asia; to remain firm in dealing with economic, arms proliferation and other disputes with China; and to work closely with traditional U.S. allies and friends along China's periphery in order to deal with any suspected assertiveness or disruption from Beijing.

A third approach is favored by some U.S. officials and others who believe that the political system in China needs to be changed first before the United States has any real hope of reaching a constructive relationship with China. Beijing's communist leaders are seen as inherently incapable of long term positive ties with the United States. U.S. policy should focus on mechanisms to change China from within while maintaining a vigilant posture to deal with disruptive Chinese foreign policy actions in Asian and world affairs. The development of an authoritarian superpower more economically competent than the USSR is not to be aided.

#### OUTLOOK FOR U.S. POLICY

Given the continued wide range of opinion in the United States over the appropriate U.S. policy toward China, it appears likely that U.S. policy will continue its recent pattern of trying to accommodate elements of all three approaches. On some issues, like linking MFN treatment and human rights, the U.S. Government has seen U.S. interests best served by an approach that meets PRC concerns. On others, like intellectual property rights protection and proliferation of missile technology, the United States Government seems prepared to threaten sanctions or to withhold benefits from Beijing until it conforms to norms acceptable to the United States. Meanwhile, although many U.S. officials would see as counter-productive any declaration by the U.S. Government that a policy goal was to change China's system of government, there is a widespread assumption that greater U.S. "engagement" will encourage such desirable changes.

Whether the U.S. Government policy synthesis of these three tendencies is done smoothly or is accompanied by the often strident policy debates accompanying U.S. China policy decisions in recent

years depends partly on U.S. leadership. Although U.S. policy toward China during the Clinton Administration has been criticized by some for vacillation and unclear direction, there have emerged in recent months in the United States, especially in the wake of the U.S.-Chinese military face-off in the Taiwan area in 1995-1996, signs that U.S. policy has appeared to come together in a more coherent and clear way. There is less debate in the United States pushed by single issue advocates demanding that their interest be the top priority of U.S. policy toward China. There is more awareness of China's rise as a great power, of the multifaceted challenges this poses for U.S. interests, and of the need for the United States to establish carefully crafted and effective policies and contingency plans to deal with those challenges. Evidence of the more serious, sober and careful U.S. approach to China can be seen in:

- President Clinton's more carefully balanced use of negative and positive incentives in dealing with China issues in 1996. The show of force in the Taiwan Strait and the President's tough stance on Intellectual Property Rights provided a balance for the Administration's renewal of MFN treatment and its accommodation with Beijing over the sale of nuclear related technology to Pakistan.
- Senator Dole's major policy speech on Asia on May 9, 1996, which avoided wide difference with the present direction of Clinton Administration China policy, though he castigated the Administration's "inept" handling of the U.S.-China relationship in the past three years;
- Secretary Christopher's first major address on China, on May 17, 1996, which laid out a carefully balanced U.S. approach to the rise of China's power and influences;
- President Clinton's subsequent willingness to take the initiative in publicly discussing issues in China policy, despite the sensitivities of the U.S. election year politics;
- The Administration's decision to send National Security Adviser Anthony Lake to China, in July 1996, perhaps paving the way for a U.S.-China summit meeting;
- Generally low-key efforts by U.S. critics to cut off Most-Favored-Nation (MFN) tariff treatment for Chinese imports during the annual debate over granting MFN for China.
- Growing evidence that important congressional leaders are willing to give voice to the notion that the idea of the U.S. "punishing" China through withdrawal of MFN privileges or other means needs to be replaced by a more carefully crafted and serious effort by the United States to "deal" with China's rise.<sup>10</sup>

Perhaps the main reason U.S. policymakers may be moving toward a more coherent and consist China policy has to do with a growing U.S. awareness of the importance of China's rise to power.<sup>11</sup>

<sup>10</sup>These developments were discussed in detail at a Harvard University conference on U.S.-China relations, May 31-June 1, 1996.

<sup>11</sup>See notably, discussion in *China's Rising Power: Alternative U.S. National Security Strategies—Findings of a Seminar*, Congressional Research Service Report 96-518F, June 6, 1996.

Although recent development of China's wealth and power poses opportunities as well as challenges for U.S. policy, American opinion leaders and U.S. officials are increasingly focused on the challenges. China is seen as a very large, strategically located country undergoing rapid economic growth and social change, and ruled by authoritarian political leaders. Since the Maoist era, China has made great strides in conforming to many international norms, but a combination of rising Chinese power and nationalistic assertiveness poses serious problems for U.S. security interests in Asia; U.S. efforts to curb trafficking in technology for weapons of mass destruction; U.S. support for a smooth running market-based international economic systems; and U.S. backing of other international norms regarding human rights, environmental protection and other issues.

Historical experience suggests that the United States will be unable to reach any "grand bargain" or lasting solution to the China challenges. Rather, U.S. leaders will need to devote continuous high-level policy attention, issue by issue, case by case, in order both to deter Chinese assertiveness and encourage Chinese accommodation to prevailing international practice. In so doing, the U.S. would be ill served to rely solely on policies designed to moderate Chinese assertiveness through accommodation and greater integration in world affairs. Although many are hopeful about the positive changes that could come from China's economic modernization and social change, they could be long in coming. As a result, U.S. policymakers are striving to establish clearly defined negative and positive incentives that would prompt PRC behavior more compatible with U.S. interests. At the same time, a U.S. policy of containment against China is seen as both premature and unworkable.

An effective U.S. strategy toward China needs to be seen in the context of a broader U.S. strategy in Asia—one requiring a strong U.S. military, economic and political presence, and requiring some degree of cooperation from important U.S. allies and friends in the region. Recommendations for U.S. policy focus on establishing a clear set of priorities that take account of U.S. interests along with Chinese concerns and those of interested third parties, especially in Asia. To formulate these policy priorities, and to help to insure that they are met, require careful and consistent high-level U.S. policy attention, probably including regular U.S.-PRC summit meetings.

Against this background, several rules of thumb are suggested that U.S. leaders could consider when determining whether the United States should try to accommodate, confront, or change China on a particular policy issue:

1. How important is the issue at hand for U.S. interests? (In general the more important U.S. interests at stake, the less accommodating and more forceful U.S. leaders should be.)
2. How does the issue at hand fit in with broader U.S. strategic interests in relation with China? (Presumably, some U.S. officials would be inclined to soft pedal relatively minor disputes with China when they are pressing for broader gains elsewhere).
3. How much leverage does the United States have over the PRC on this issue? (In general, the greater the degree of U.S. lever-

age, the easier it is for U.S. leaders to press for their demands.)

4. What are the attitudes of U.S. allies and associates? (If they do not support a firm U.S. stance, U.S. efforts to pressure China may be outflanked, Quixotic and/or counterproductive.)
5. How sensitive is the issue at hand to the PRC. (Experience has indicated that Beijing has shown less sensitivity and greater flexibility on international economic issues, and has shown more sensitivity and less flexibility on issues involving domestic political control and territorial claims. Many analysts believe that PRC leadership flexibility on sensitive issues will be restricted for a time as a result of the decline of Deng Xiaoping's health and the ongoing leadership succession struggle).

Other matters of importance in considering specific China policy issues include:

- How does the U.S. stance affect broader U.S. interests in Asian stability and international affairs?
- What is the U.S. "bottom line"? Chinese officials will press for the advantage until they find it.
- Can the China policy issues being addressed be effectively pursued in an overall friendly and respectful atmosphere? This reduces suspicions in Beijing regarding the alleged overall hostile intent of U.S. policymakers toward China—suspicions which greatly limit PRC flexibility.
- Can the China policy issue be pursued with the aid of U.S. allies, associates and other international leaders to create an atmosphere that would prompt Beijing to change in directions favored by the United States? (The United States used this approach in part to get Beijing to go along with international sanctions and military action against Libya and Iraq; with planned sanctions against North Korea; and with provisions of the 1991 Cambodian peace accord that were opposed by Beijing's former client, the Khmer Rouge.)



# CHINA AND U.S. POLICY: FUTURE DECISION POINTS

By Kerry Dumbaugh and Richard P. Cronin \*

## CONTENTS

	Page
Summary .....	515
Context: Recent Record of Growing Bilateral Confrontation .....	516
The Lee Teng-Hui Visit and Its Aftermath .....	516
Impact of China's Provocative Exercises and Missile Tests .....	518
Easing of Tensions in Mid-1996 .....	519
Continuing Fundamental Sources of Conflict .....	520
Factors Likely to Shape Relations During the Next Two Years .....	520
Controlling Factors: Taiwan, Hong Kong, China's Party Congress .....	521
Issues Involving Taiwan .....	521
Resumption of Sovereignty Over Hong Kong .....	522
China's 15th Party Congress .....	524
Recurring Bilateral Issues: Most-Favored-Nation Status (MFN), Trade Agreements, and Other Issues .....	525
U.S. Policy Considerations and Possible Approaches to Addressing Key Issues .....	526
Overall Approaches .....	527
Approaches Touching on China's Sensitivity to Perceived Threats to its Sovereignty .....	527
Approaches Centering on U.S. Self-Interest Regarding Specific Issues .....	528
Approaches That Acknowledge Each Country's Power to Help or Hinder the Other's Interests .....	528
U.S. Responses to Particular Challenges .....	529
Policy Toward Taiwan .....	529
WTO Membership for China .....	529
Hong Kong .....	530
Nuclear and Missile Proliferation .....	530

## SUMMARY

The always fragile fabric of U.S.-China relations has suffered damage since the Tiananmen Square incident of May 1989. Relations perhaps reached a low point during the latter half of 1995 and early 1996, in the wake of the unofficial visit to the United States by Taiwan's President Lee Teng-hui, and subsequent attempts by Beijing to influence the island's April 1996 presidential elections by conducting live-fire military exercises and provocative missile tests in the vicinity of Taiwan's main seaports. With strong support from Congress, the Clinton Administration dispatched two carrier task groups to the area as a show of support for Taiwan. During 1995 and 1996 Congress also considered and passed a number of measures that raised the rhetorical level of U.S. condemna-

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tion of China's actions and reinforced a sense of growing confrontation.

Although tensions eased somewhat in the months following the Taiwan elections, fundamental sources of conflict continue and are likely to affect relations for the foreseeable future. Among the more important problems are uncertainties surrounding the leadership succession in Beijing and the extent to which some Chinese government and military officials have grown suspicious of U.S. intentions toward China.

Although many analysts call for a more strategic approach to dealing with China, perhaps the best that can be expected would be a continued effort to maintain a policy of engagement coupled with a more effectively calibrated or more evidently consistent balance among competing policy objectives. Broad alternative approaches include showing more sensitivity to issues that touch on China's sensitivity to perceived threats to its sovereignty; approaches centering on U.S. self-interest regarding specific issues; and approaches that acknowledge each country's power to help or hinder the other. The main future challenges for U.S. policy relate to Taiwan, WTO membership for China, Hong Kong, and China's role as a source of nuclear and missile proliferation.

#### CONTEXT: RECENT RECORD OF GROWING BILATERAL CONFRONTATION

For numerous and diverse reasons, the fabric of U.S.-China relations has suffered damage in recent years. The Tiananmen Square crackdown in 1989 cut short American optimism about China's political future and ended the largely routine congressional support for Administration initiatives on China that had characterized much of the decade. The U.S. China policy process became confrontational rather than consensual. In addition to the impact of Chinese internal developments, the breakup of the U.S.S.R. in the early 1990s left U.S. policymakers with less clear notions of what they wanted from the relationship with China—a country that had earlier served as an important counterweight to Soviet military power. As a consequence, individual policy decisions acquired a life of their own and often did not appear rooted in a larger strategic vision or sense of overriding national self-interest. By 1994, both the U.S. and Chinese governments appeared internally divided and hamstrung by domestic political constraints that sharply reduced the flexibility needed to avert periodic breakdowns and reach pragmatic accommodation on difficult bilateral issues.

#### THE LEE TENG-HUI VISIT AND ITS AFTERMATH

While a number of factors contributed to the downward spiral in U.S.-China relations, few had as dramatic an impact as the Clinton Administration's reluctant, eleventh-hour decision on May 22, 1995, to allow Taiwan's president, Lee Teng-hui, to make a private visit to the United States to attend a reunion at Cornell University, his alma mater. Reportedly, the decision came only two weeks after

Secretary of State Warren Christopher had personally assured Chinese leaders that the visit would not be approved.<sup>1</sup>

President Clinton announced his decision under heavy pressure from Congress, dramatized by the passage with nearly unanimous support of separate House and Senate resolutions urging the President to ignore Beijing's objections and allow President Lee's visit, and with awareness that Congress would likely follow-up with a statutory measure mandating the issuance of a visa. The visa decision returned the issue of Taiwan to center stage in U.S.-China relations for the first time in nearly fifteen years.

Beijing protested the Lee visit vehemently, breaking off routine bilateral talks with the United States and criticizing U.S. actions heatedly in the government-controlled media. The Chinese recalled their ambassador to the United States, withdrew a visiting military air force chief, and postponed several scheduled high-level visits. Beijing also suspended ongoing U.S.-PRC talks on missile technology control and cooperation on nuclear energy. All this was accompanied by a steady drumbeat of harsh protests and invectives from Chinese officials and the media.

Chinese spokesmen repeatedly said that they regarded President Lee's visit as an attempt to reestablish official U.S. relations with Taiwan and hence a violation of the U.S. 1978 Joint Communiqué on Establishing Diplomatic Relations with the People's Republic of China. The Clinton Administration strongly denied this charge, but found itself in an awkward position; earlier, in arguing against a visit in testimony before Congress, Assistant Secretary of State Winston Lord had indicated that this would be precisely the meaning that China would attach to approving the visit.<sup>2</sup>

U.S.-China tensions continued to escalate for months following the Lee visit. Remaining sharply critical of the United States, Beijing retained its Ambassador at home for an extended period, arrested, convicted, and expelled an American citizen, Harry Wu, on charges of spying, and detained and eventually expelled or forced the recall of several American defense attaches for allegedly violating security zones.

During 1995 and 1996 Congress considered and passed a number of measures that reinforced a sense of growing confrontation. H.R. 2058 (Bereuter), The U.S.-China Policy Act of 1995, passed by the House on July 20, 1995, by a vote of 416-10, was designed as a compromise to withdrawing China's most-favored-nation (MFN)

<sup>1</sup>Robert S. Greenberger, Bob Davis, and Kathy Chen, U.S. and China: A Trail of Misperceptions. *Wall Street Journal*, July 14, 1995: A8.

<sup>2</sup>See February 9 testimony before House Subcommittee on Asia and the Pacific on February 9, 1995, in *The Future of U.S. Foreign Policy in Asia and the Pacific*; hearings before the Subcommittees on International Economic Policy and Trade, Asia and the Pacific, and International Operations and Human Rights, of the Committee on International Relations, House of Representatives (104th Congress, 1st Session), p. 46-47, 68-69. Lord argued that the Clinton Administration had gone further than its predecessors in developing unofficial ties with Taiwan, "but there are certain steps that get into the level of officiality, which get into the level of the two Chinas, which frankly will very much hurt our equities in the Mainland." (p. 69.) Rep. Lee H. Hamilton, who supported the invitation to President Lee, also noted in a markup hearing on April 5, 1995, that "China believes that any visit by President Lee to this country would, by definition, no matter how we phrase it, be political, whether the visit is called private or not." Both Rep. Hamilton, then, and Assistant Secretary Lord, at the earlier hearing on February 5, noted that the issue went to the heart of the "one China" policy of six U.S. Administrations. Regarding a Visit by President Lee Teng-Hui of the Republic of China on Taiwan; Markup of H. Con. Res. 53 before the Committee on International Relations, House of Representatives, April 5, 1995 (104th Congress, 1st Session), p. 3-4.

status but also included a long list of complaints against China. The resolution criticized China for arresting Harry Wu, blasted Beijing for its continuing unfair trade practices, called for reduction of China's tensions with Taiwan, and required a detailed U.S. plan for the establishment and operation of Radio Free Asia.

H.R. 1561 (Gilman), the American Overseas Interests Act of 1995, which passed the House and Senate during 1995 and was vetoed by the President on April 12, 1996, included provisions establishing a Special Envoy for Tibet, declaring that the Taiwan Relations Act superseded the U.S.-PRC communiqué of 1982 (in which the United States agreed to restrict arms sales to Taiwan), stating that the President should grant a visa to Taiwan's President Lee Teng-hui for a return visit in 1996, reaffirmed the U.S. interest in Taiwan's security, and seeking to require the Administration to pay more attention to the situation in Hong Kong.<sup>3</sup>

#### IMPACT OF CHINA'S PROVOCATIVE EXERCISES AND MISSILE TESTS

Tensions appeared to reach their zenith nearly a year after the Lee visit, in the weeks preceding Taiwan's March 23, 1996, presidential election. On March 8, 1996, following half a year of threats and provocative military exercises, the Chinese began two weeks of ballistic missile tests and live-fire exercises off Taiwan's coast. Missile tests during the period March 8-15 bracketed the island with landing zones only a few miles of the major ports of Keelung in the North and the port city of Kaohsiung in the South. The tests caused the diversion of aircraft flights and shipping, and signalled bluntly that China did not have to actually invade Taiwan to hurt it, but could heavily damage its economy by harassing its vital lines of communication.

The exercises seemed to be designed to undercut electoral support for Taiwan's President, Lee Teng-hui, by showing that his efforts to promote a higher international profile for Taiwan were dangerous. While the provocative threats may have effectively underscored China's ability to harm Taiwan's economy and caused Taiwan's policymakers to moderate their bid for a greater international recognition, the electoral effect was precisely the opposite of what was intended. In a field of four candidates, President Lee, whose support earlier had appeared shaky, won the elections with 54% of the vote.<sup>4</sup>

The Administration reacted strongly to China's efforts at intimidation, albeit belatedly in the view of congressional and other critics. U.S. officials stressed through diplomatic and other channels that any effort by China to resolve the Taiwan issue by force would compromise "a fundamental premise underlying [U.S.] policy, that the PRC will pursue a peaceful settlement."<sup>5</sup> Reportedly the Presi-

<sup>3</sup>With regard to Hong Kong, the bill contained a provision requiring more detailed reporting on Hong Kong under Section 301 of the U.S.-Hong Kong Policy, including reports on the Basic Law; fairness of Legco elections; fairness of the Chief Executive selection; treatment of political parties; independence of the judiciary; and status of the Bill of Rights. Similar language on Hong Kong was enacted into law with passage of the FY1996 Foreign Operations Appropriations (P.L. 104-107), signed into law February 12, 1996.

<sup>4</sup>Most analysts believe that Beijing hoped its aggressive military exercises in the Taiwan Straits would hold Lee's percentage to 50% or even less.

<sup>5</sup>Prepared statement of Winston Lord, Assistant Secretary of State for East Asian and Pacific Affairs, before the Subcommittee on East Asian and Pacific Affairs of the Senate Foreign Relations Committee on February 7, 1996.

dent personally wrote to Chinese President Jiang Zemin criticizing the military exercises.<sup>6</sup> Secretary of State Warren Christopher termed China's actions "reckless and provocative," while Secretary of Defense William J. Perry described the missile tests as "acts of coercion." As the crisis intensified in early March, and in the midst of congressional demands for a more vigorous response, the Clinton Administration dispatched two powerful aircraft carrier battle groups to the area centered on the U.S.S. Nimitz and the U.S.S. Independence.

The Congress vigorously supported sending the American carrier groups and raised the rhetorical level of U.S. condemnation. Both Houses held hearings in which Members harshly criticized China. The House passed a non-binding resolution, H.J. Res 148 (Cox), that expressed the sense of the Congress that, in accordance with the Taiwan Relations Act and the American constitutional process, the United States should assist in defending Taiwan "against invasion, missile attack, or blockade by the People's Republic of China."

Although the Administration professed to support the "objectives of the resolution's sponsors to make clear to the People's Republic of China that a resort to force with respect to Taiwan would directly involve American national interests and would carry grave risks," it viewed the language of the resolution as inconsistent with established U.S. policy on the Taiwan issue. In response to a written inquiry to the Secretary of State by Rep. Lee Hamilton, a senior State Department official wrote that the passage in the resolved clause "could be interpreted as expressing an opinion taking us beyond the carefully formulated undertakings embodied in the TRA." The letter expressed support for a similar resolution in the Senate which it said "uses formulations we believe would be more helpful to our common efforts to restore stability and reduce tensions in the area."<sup>7</sup> The Senate version of H. Con. Res. 148 (Thomas), which passed by a margin of 97-0, on March 21, struck the House resolving clause and substituted a formulation that called on the President to "immediately consult with Congress on an appropriate United States response . . . should the tests or exercised pose an actual threat to the peace, security, and stability of Taiwan."<sup>8</sup>

Whether the deliberations leading up to passage of the congressional resolutions had any effect on the situation cannot be determined. By the time the measures got to the floor in the House and Senate, China had ended its missile tests in accordance with its earlier publicized schedule, and indicated that it did not intend to attack Taiwan.<sup>9</sup>

#### EASING OF TENSIONS IN MID-1996

For a number of reasons, originating in Beijing, Washington, and Taipei, U.S.-China tensions eased in the months following the Taiwan elections. Although remaining suspicious of President Lee, Beijing moderated its position on Taiwan, cutting back on its in-

<sup>6</sup>Christopher B. Johnstone, "Managing" China: American and Japanese Policies and Prospects for Cooperation. Japan Economic Institute, *JEI Report*, April 5, 1996: 2.

<sup>7</sup>Letter to Rep. Lee H. Hamilton from Barbara Larkin, Acting Assistant Secretary, Legislative Affairs, March 19, 1995. *Congressional Record*, House, March 19, 1995: H2344.

<sup>8</sup>*Congressional Record*, Senate, March 21, 1996: S2622.

<sup>9</sup>See remarks by Senator Craig Thomas, *Congressional Record*, Senate, March 21, 1996: S2622.

flamatory rhetoric and leaving the door open to renewed discussions with Taiwan officials. For his part, President Lee of Taiwan made clear his own desire to ease tensions and renew a dialogue. The Clinton Administration reassessed its overall policy toward China, extended China's MFN status for another year, and made other overtures to Beijing that appear to have been received favorably. In particular, U.S. National Security Advisor Anthony Lake's trip to Beijing in July 1996 triggered speculation that U.S.-China relations are poised for improvement.

#### CONTINUING FUNDAMENTAL SOURCES OF CONFLICT

Despite the apparent easing of tensions in mid-1996, fundamental sources of conflict bedevil U.S.-China relations that are likely to affect relations for the foreseeable future. Among the more important problems, U.S. policymakers remain uncertain about China's leadership succession and the prospects and perceptions that a new generation of leaders will bring to China's future policy direction.

U.S. officials and other observers have been concerned particularly about the extent to which some Chinese government and military officials have grown suspicious of U.S. intentions toward China. In recent years, some in Beijing have interpreted a host of unrelated U.S. policy decisions—such as U.S. decisions to permit the visit of President Lee, increase involvement in Hong Kong, and strengthen U.S. security ties with Japan—as a coordinated effort directed specifically toward limiting or “containing” China's power and influence.

Chinese rhetoric over the past year has been suffused with allusions to the importance and requirements of Chinese sovereignty, and officials have tended to define political goals and objectives in more state-centered, nationalistic terms than was customary in past years. Some American observers view the prospect of rising nationalism in late twentieth century China with alarm. Even more troubling, very negative views of the United States—once found mainly among the hardline Communist elite—appear to be sifting down to the Chinese public at large. As a result, favorable attitudes toward the United States are harder to find, even among Chinese intellectuals and students who generally admire American democracy.<sup>10</sup>

#### FACTORS LIKELY TO SHAPE RELATIONS DURING THE NEXT TWO YEARS

Many analysts see the next two years as critical, both for domestic developments in China and for U.S.-China relations. A number of factors and events, many of them likely to require policy decisions by the United States, will be highly influential in determining the nature and direction of U.S.-China relations for years to come.

Chinese officials face several watershed economic and political tasks. These include: choosing new senior leaders—and thus deter-

<sup>10</sup>The observations noted here are based on conversations with Clinton Administration officials, congressional staff working on foreign policy issues, and recent articles by U.S. China watchers that have appeared in *The Economist*, *The Washington Post*, and academic journals.

mining China's overall policy direction over the near-term; deciding on how to build the economic and political institutions needed by a growing mixed-market economy with global aspirations; establishing a viable balance between the desire to assert sovereignty and the functional autonomy needed to maintain Hong Kong's current economic and international financial status; and successfully dealing with Taiwan's challenge to the "one China, two systems" formula. How China handles these challenges will affect U.S. national interests and have a direct effect on U.S.-China relations.

CONTROLLING FACTORS: TAIWAN, HONG KONG, CHINA'S PARTY CONGRESS

*Issues Involving Taiwan*

Taiwan is likely to continue to be a recurring focus for U.S.-China relations in the next few years. Although President Lee Teng-hui has never endorsed or explicitly pushed for Taiwan independence, as a popularly elected president at the beginning of a four-year term he now appears to have a strong national mandate to continue to pursue his strategy of broadening Taiwan's international exposure and status. President Lee also has had strong support from the 104th Congress, which has adopted several resolutions that implicitly or explicitly challenge the three key U.S.-China communiqués relating to Taiwan's diplomatic and international status and U.S.-Taiwan defense relations. That President Lee achieved all this despite China's aggressive opposition to his candidacy, his tactics, and his policies, may make it more difficult for Beijing and Taipei to resume a meaningful cross-Straits dialogue over the near term.

During 1997, the continued development of democratic politics in Taiwan—this time involving elections for mayors and county executives—may well create new sources of tension in the cross-strait relationship. Although these local elections will be of significantly lower profile than Taiwan's landmark 1996 presidential election, the public debate that they will engender over Taiwan's future policy direction could serve as further obstacles to China-Taiwan dialogue, since the rival parties will likely continue to seek to appeal to pro-independence voters, even if these are not the majority.

Perhaps more important, in late 1996, President's Lee's government will continue a comprehensive revision of Taiwan's constitution during 1997. Constitutional reform could be extraordinarily divisive, since it will undoubtedly touch upon such sensitive issues as symbols of national identity, overall policy principles, and governmental institutions. China would likely object strenuously to any revisions that suggest that Taiwan is distancing itself from the "one China, two systems" formula. Taiwan's constitutional revision is also likely to attract ongoing interest from U.S. policymakers and Taiwan's supporters in Congress. Conceivably, given past experience with such sensitive issues, Taiwan's constitutional revision could indirectly provide recurring occasions throughout the year for further irritations in U.S.-China relations.

At the same time, China and Taiwan continue to have strong incentives for maintaining positive relations, starting with a very important degree of economic interdependence and ties of kinship. Re-

portedly, the easing of the March 1996 confrontation touched off a new wave of trade and investment deals, including the approval by Fujian province of \$1.7 billion in investments by Taiwanese businesses during the period January-May 1996.<sup>11</sup> Mutual economic self-interest may continue to be a powerful factor for engagement and cooperation, whatever other sources of tension may arise.

### *Resumption of Sovereignty Over Hong Kong*

A controlling event of equal or greater importance over the next two years will be China's resumption of sovereignty over Hong Kong at midnight on June 30, 1997. The credibility of China's declared policy that it can give Hong Kong significant autonomy under the "one-country, two-systems" approach is riding on how events unfold in the months leading up to and following the historic transfer. A heavy-handed or intrusive approach in dealing with several crucial issues over the next two years—the future of Hong Kong's elected legislature, the Legislative Council (Legco), the stability and continuity of Hong Kong's civil service, and the selection of Hong Kong's future chief executive, to name only the three most obvious—could have devastating consequences for China's international standing, for its aspirations for reunification with Taiwan, and particularly for U.S.-China relations.

Beijing has already lost some ground in its international credibility on the Hong Kong issue. For instance, in protest to political reforms pushed by Hong Kong's British Governor, Chris Patten, Beijing has repeatedly promised to dissolve Hong Kong's Legco in 1997 and replace it with a provisional legislature.<sup>12</sup> Such a body is not called for in any Sino-British agreement about Hong Kong's future. Nevertheless, China has defended its decision by saying that Patten's political reforms have breached Sino-British agreements on Hong Kong. Beijing has carefully referred to the proposed body as a "provisional" legislature, and has indicated it will have a temporary (one year) tenure. To do otherwise would be a clear violation of China's own official commitment to constitute the first official Legislative Council of the Hong Kong Special Administrative Region (SAR) by election.<sup>13</sup> As it is, Beijing can claim that the "provisional" legislature will be only a transitional body and not the "first" Hong Kong SAR legislature.

Some optimists have suggested that mounting international criticism will convince Chinese leaders to rethink their decision and

<sup>11</sup> Julian Baum, Money Talks Louder. *Far Eastern Economic Review*, July 25, 1996: 16.

<sup>12</sup> This pledge was further reinforced by the Preparatory Committee's nearly unanimous vote on March 24, 1996, in favor of disbanding the current Legco. The Preparatory Committee is the advisory body established by Beijing in January, 1996, to make arrangements for the transition of Hong Kong's sovereignty.

<sup>13</sup> On April 4, 1990, China's Seventh National People's Congress adopted a document entitled the *Decision of the National People's Congress on the Method for the Formation of the First Government and the First Legislative Council of the Hong Kong Special Administration Region (SAR)*. Paragraph 6 of this document states: "The first Legislative Council of the Hong Kong SAR shall be composed of 60 members, with 20 members returned by geographical constituencies through direct elections, 10 members returned by an election committee, and 30 members returned by functional constituencies. If the composition of the last Hong Kong Legislative Council before the establishment of the Hong Kong SAR is in conformity with the relevant provisions of this Decision and the Basic Law of the Hong Kong SAR, those of its members who uphold the Basic Law of the Hong Kong SAR of the People's Republic of China (PRC) and pledge allegiance to the Hong Kong SAR of the PRC, and who meet the requirements set forth in the Basic Law of the Region may, upon confirmation by the Preparatory Committee, become members of the first Legislative Council of the Region."



settle for what one observer called "a smaller fig leaf" on the Legco issue. A compromise position for Chinese leaders, they argue, could include: formally dissolving Legco; establishing an interim institutional body with largely the same membership as Legco; then holding new, scaled-back elections at a later time. But the less hopeful in Hong Kong are suspicious that in dismantling Legco, Beijing will take the opportunity to permanently disqualify a number of the more prominent champions of democracy from holding future elective office, roll back all of Governor Patten's political reforms, and then promulgate qualifications and restrictions for future Legco candidacy so as to assure that only candidates acceptable to Beijing will qualify.

Most observers of the Hong Kong situation believe that continuity in Hong Kong's civil service, with its reputation for honesty and efficiency, is an essential requirement for maintaining the territory's present character and attractiveness to international business, and that China's approach to civil service issues will be a key bellwether of Beijing's intentions. On this issue, Chinese officials have already caused much apprehension. Early in 1996 a Chinese official reportedly stated that, in effect, civil servants unwilling to work with the provisional legislature prior to the 1997 transition should be barred from government service.<sup>14</sup>

Even if China backs off from overt criticisms and other actions that erode civil service confidence, U.S. and international suspicions about the independence of Hong Kong's future civil service could cause American policy makers to question and object to future Hong Kong government decisions. While formerly identified closely with the British government, Hong Kong civil servants, nearly all of whom—including the senior-most—are now Hong Kong Chinese, already appear less evidently "British" than in the past and increasingly seem to be distancing themselves from London.

Continuing Sino-British rancor already has placed Hong Kong's civil servants in difficult positions which require continual compromise. On the one hand, they must tend to the interests of Hong Kong and of their own departments, while at the same time trying to strike a balance between British and Chinese government expectations and demands. On the other hand, they are continually reminded of their own vulnerability to dramatic and unforeseen career changes once Hong Kong's new Chief Executive is named and the transition to Chinese sovereignty is complete.

Over the near term, U.S.-China relations could well founder on these and other issues affecting Hong Kong. As an important international financial center, a major regional headquarters location for U.S. business in Asia, a fledgling democracy, and a frequent host to port calls by the U.S. Navy, Hong Kong has long been an important focal point of U.S. economic, political, and even security interests in Asia. Each of these interests has advocates, both domestic and international, who add their contributions to the U.S. policy process, particularly to the legislative process. In the coming months before and immediately after the transfer of sovereignty,

<sup>14</sup>The Chinese government since then has receded from this position, but many viewed its articulation as confirming suspicions about Beijing's intentions.

all parties are likely to put increasing pressure on U.S. policy-makers to adopt favored policies. Some groups, for instance, seek greater U.S. involvement and activism in support of the territory's continued autonomy and recently expanded political freedoms; many in the business community argue for a more calibrated and targeted approach; and China objects strenuously to any increase in U.S. involvement in Hong Kong. In particular, past congressional initiatives on Hong Kong have prescribed a set of U.S. policy objectives in Hong Kong and imposed monitoring and reporting requirements that could easily come into play over the next two years.<sup>15</sup>

### *China's 15th Party Congress*

A third controlling event within the near term will be China's 15th Communist Party Congress. Communist Party Congresses are held on average every five years in China, and they are extraordinarily important to Chinese leadership decisions and overall policy direction. The 15th Party Congress is scheduled for 1997, although planning and political maneuvering are now under way. The Party Congress will endorse a new leadership as well as set forth economic, political, and foreign affairs policies intended to carry China over the next five years and into the 21st century.

The domestic economic and political difficulties that confront the 15th Party Congress are substantial. China's leadership transition brought on by the failing health of Deng Xiaoping has resulted in a struggle for power in Beijing. The competition has opened foreign policy—and particularly, policy toward the United States—to a variety of influences from diverse factions and bureaucratic groups maneuvering for power. This may intensify in the months preceding the Party Congress. If so, any single Chinese leader—including Jiang Zemin, the Party General Secretary—is bound to be constrained by these bureaucratic politics. If internal policy divisions continue through and after the Party Congress, future Chinese leaders are likely to continue to have limited flexibility to make important policy decisions or concessions on issues that are important to the United States.

Apart from leadership decisions, the 15th Party Congress will also be a crucial forum for addressing other areas of long-term pressures on the Chinese government, such as economic and political institution-building issues—what some in the Chinese govern-

<sup>15</sup> Enacted in 1992, the Hong Kong Policy Act (P.L. 102-383) declares that support for democratization is a fundamental U.S. principle that should apply to policy toward Hong Kong after 1997; declares congressional support for the Sino-British Joint Declaration, which includes the fact that there will be elections for Legco, and that all agreements the United States has implemented with Hong Kong by June 30, 1997, will continue in force after that date; requires the same U.S. laws to apply to Hong Kong after 1997 as were in force before then, but permits the President to suspend those agreements beginning July 1, 1997, if he determines China is not giving Hong Kong sufficient autonomy; requires the Secretary of State to report to Congress regularly on the situation in Hong Kong, including the development of Hong Kong's democratic institutions. (The most recent report was issued in March 1996.) In addition, the 104th Congress included Hong Kong provisions in the Conference Report to H.R. 1561, the Foreign Relations Authorization Act. Although this bill was vetoed by the President on April 12, 1996, language containing similar Hong Kong provisions was enacted into law with passage of the FY1996 Foreign Operations Appropriations (P.L. 104-107), signed into law February 12, 1996. That law contains a provision requiring more detailed reporting under Section 301 of the U.S.-Hong Kong Policy Act (22 USC 5731), including reporting on the Basic Law; fairness of Legco elections; fairness of the Chief Executive selection; treatment of political parties; independence of the judiciary; and status of the Hong Kong Bill of Rights.

ment have referred to as "trans-century" tasks. Among other things, these include important decisions on how to approach China's overburdened and debt-ridden state enterprises, and critical choices on relieving some of the infrastructure bottlenecks to China's continuing economic development. The Party Congress will also have to confront difficult pressures that challenge the very national identity of the country. In addition to balancing diverse views about ongoing sovereignty issues—such as those surrounding Taiwan and Hong Kong—the Party Congress will have to address continued substantial concerns about the cohesion and disparate economic development of different regions in the country.

RECURRING BILATERAL ISSUES: MOST-FAVORED-NATION STATUS (MFN),  
TRADE AGREEMENTS, AND OTHER ISSUES

In addition to the major controlling factors described above, U.S.-China relations over the mid-term are likely to continue to be influenced by recurring issues on which policy decisions must be made. These include the annual review of China's most-favored-nation trade status, continuing Chinese market access barriers, and ongoing concerns about China's role as an exporter of nuclear materials and technology, ballistic missile technology, and ballistic missiles. Such exports to Pakistan over the past several years have been a matter of ongoing friction. Each of these recurring issues could provide the basis for future conflict in the relationship.

Since 1990, the annual June renewal of China's MFN status has been particularly rancorous. Although China's MFN status has never been withdrawn, the annual consideration of its renewal has been a catalyst for a U.S. policy debate over a wide range of issues relating to China policy and a periodic cause of tension in relations.<sup>16</sup> In 1996, the House agreed to a compromise alternative to a resolution of disapproval, which requires four House committees to hold hearings before September 1, 1996, about various ongoing problems in U.S.-China relations.

The United States and China have also sparred regularly about a number of economic and trade difficulties in the relationship. These include allegations that China exports products to the United States that have been produced with prison labor in violation of U.S. law; violates its U.S. textile import quotas by illegally transshipping textile products through third countries using false country-of-origin labels; maintains a wide range of unfair trade barriers that limit U.S. access to the Chinese market; and egregiously violates U.S. intellectual property rights (IPR). By some calculations these violations cost American companies several billions of dollars in lost revenues every year.

Continuing bilateral negotiations have resulted in a number of agreements aimed at reducing these problems. In 1992, the United States and China signed a Memorandum of Understanding (MOU) that was billed by the Clinton Administration as resolving the un-

<sup>16</sup> On May 20, 1996, President Clinton announced that he would be requesting an extension of China's most-favored-nation (MFN) trading status. On June 27, 1996, the House of Representatives rejected (141-286) H.J.Res. 182, a resolution that would have disapproved the President's recommendation to extend China's MFN status for another year, opting instead for a compromise measure calling for additional review of China policy issues by a series of House committees.

fair trade barrier issue. Under the MOU, China agreed to eliminate a range of trade barriers over the next 5 years and make its trade procedures more transparent by publishing trade laws and regulations. In January, 1994, the United States and China concluded a new textile agreement setting new quotas on some Chinese textile products and providing for U.S. remedies should China violate the agreement by transshipping products. By most accounts, however, numerous trade problems continue.

The most intractable U.S. trade dispute with China has involved China's ongoing violations of U.S. intellectual property rights—an issue that is revisited twice each year in May and November when the U.S. Trade Representative makes its Special 301 report and conducts its semi-annual review of suspected IPR violators. After several years of negotiations, threatened sanctions, and periodic agreements, the United States on May 15, 1996, again announced the imposition of sweeping sanctions on Chinese imports because of China's continuing failure to adequately enforce a 1995 bilateral IPR agreement. The issue was resolved at the last hour before the deadline, with China moving in the final days to close a number of pirating factories. Nevertheless, past experience indicates that these and other trade issues are likely to continue to cause problems in the relationship.

Other U.S.-China disputes have no fixed timeframe but tend to recur periodically. For instance, Beijing would like to have a deadline for the decision on its application to become a member of the World Trade Organization (WTO). Chinese officials see the United States as the chief obstacle to China's bid for membership, and believe U.S. opposition to its membership under current circumstances is motivated by the desire to use WTO approval as a lever to gain further near-term concessions on various trade disputes, such as the IPR issue, and as a part of a broader effort to impede China from taking its proper place in the international arena. Beijing at various times has threatened retaliation unless progress is made on its WTO application. The United States, for its part, denies these accusations and argues that China simply has not made sufficient progress in opening up its economy and adhering to WTO principles.

Human rights issues also regularly recur, and have been among the most visible and constant points of contention in U.S.-China relations since the 1989 Tiananmen Square crackdown. Chinese officials have made abundantly clear that they are not prepared to allow anything like a legitimate organized political opposition to operate, nor even to tolerate solitary critics.

#### U.S. POLICY CONSIDERATIONS AND POSSIBLE APPROACHES TO ADDRESSING KEY ISSUES

Although many analysts call for a more strategic approach to dealing with China, the relationship has become so complex and multifaceted that policymakers will be hard pressed even to rank-order their priorities, let alone calculate the likely ramifications of alternative courses of action. Perhaps the best that can be expected would be a continued effort to maintain a policy of engagement coupled with a more effectively calibrated or more evidently consistent balance among competing policy objectives. As Robert Sutter notes

in his paper in this volume, a "grand bargain" either with China or among American advocates of competing policy approaches is not likely.

Moreover, as also noted in the Sutter paper, to be effective, China policy needs to fit with a larger framework of U.S. policy towards the dynamic Asia-Pacific region, and also remain compatible with the policies of other key actors and allies, most notably Japan. China's integration into regional organizations such as the Asia-Pacific Economic Cooperation forum (APEC) and the ASEAN Regional Forum (ARF) may help moderate Chinese policies, but also will constantly present the United States with difficult choices between multilateral objectives vis-à-vis the region and bilateral objectives vis-à-vis China.

Adding to this complex picture, the United States also faces domestic challenges over the next two years that will affect its view of and relations with China. Rancorous internal policy disagreements over issues such as spending priorities, the proper role of government in regulating business activity, appropriate and sustainable U.S. global responsibilities, have typified the political process and created uncertainties about American policies. While many aspects of U.S.-China policy show wide areas of consensus that cross party lines, strains in the relationship between the Administration and Congress have had a significant impact on U.S.-China relations. Depending only in part on the outcome of the November elections, these sources of conflict may well continue.

#### OVERALL APPROACHES

The complexity of U.S.-China issues and internal divisions within the United States over policy priorities suggests several possible approaches that may be urged on the Administration and Congress, often simultaneously. These are outlined in general terms below.

#### *Approaches Touching on China's Sensitivity to Perceived Threats to its Sovereignty*

Some analysts suggest that the United States has shown insufficient awareness of China's sensitivity to perceived threats to its sovereignty, thereby provoking an unnecessarily nationalistic response to issues that might otherwise be resolved in a pragmatic fashion. Such observers argue that the United States should avoid further actions likely to be viewed as affronts to Chinese nationalism and sovereignty claims. They maintain that such policies tend to undercut the standing of the civilian leaders of the Chinese foreign ministry and other parts of the Chinese administration, who are presumed to be comparatively moderate in outlook, and strengthen the hands of the hardliners in the People's Liberation Army (PLA) and elsewhere.

These observers in particular urge leaders in Congress to steer clear of legislative and other actions supporting Taiwan as a separate country, critical of Chinese human rights policies and other Chinese internal affairs, and calling for U.S. trade or other sanctions against China for its missile transfers or other transgressions involving transfers of sensitive technology to troubled regions and rogue states. By giving the disputes in U.S.-China relations less attention, the argument goes, U.S. leaders would be better able to

focus on common ground in U.S.-China relations; avoid the embarrassment of visibly exercising too little leverage for real effect; build greater trust between Chinese and U.S. leaders; reduce the kind of tensions that might possibly lead to a military confrontation in Asia; and build a more positive atmosphere between Chinese and U.S. leaders and people that will provide a better foundation for future U.S. relations with this important Asian power.

In contrast, others concerned with U.S. China policy, including some in the Congress, are deeply distrustful of the Chinese government and judge that U.S. policy should be premised on the need to adopt policies to contain China's presumed hegemonistic tendencies, and weaken and change the authoritarian Chinese political system. A common view among these analysts and observers is that fears about Chinese suspicions of the United States are overblown—that Beijing's accusations are simply tactical political posturing designed to wring maximum concessions from the United States. These observers generally judge China weaker than presumed by those who counsel a more solicitous attitude towards Chinese sovereignty concerns, and object in principle to accommodations that require the tacit acceptance of Beijing's suppression of Tibetan nationalism, its repressive political system, or its efforts to intimidate or isolate Taiwan.

#### *Approaches Centering on U.S. Self-Interest Regarding Specific Issues*

Perhaps more numerous are those who agree on the dangers in antagonizing Chinese leaders during this leadership transition but are also concerned with protecting and pursuing U.S. interests vigorously in relations with China. Their stances often are compatible with those who do not object to offending the Chinese leadership. These observers tend to believe that, on balance, the U.S. Government needs to be firm in dealing with the PRC even on sensitive issues of sovereignty regarding Taiwan, Tibet, and Hong Kong, as well as on trade, proliferation, and human rights concerns. Although there is a danger that hardline Chinese elements may take advantage of U.S. pressure to gain control of policy levers in Beijing, this argument judges that Chinese national interests and China's underlying desire for some level of cooperation with the United States will make its leaders—whether hardline or not—seek to avoid actions that are blatantly harmful to U.S. interests.

#### *Approaches That Acknowledge Each Country's Power to Help or Hinder the Other's Interests*

Practically speaking, at some level of confrontation the above approach will be constrained by the reality that whether internally weak or strong, China is large enough and powerful enough to do significant harm to U.S. interests and those of its friends and allies. Consequently, both the Administration and many outside analysts see the United States as having little choice but to seek some reasonable level of engagement with China, barring actions by Beijing that provide a compelling case for a policy of overt containment.

A number of important American foreign policy objectives require some level of accommodation with China. These include dealing

with the problem of North Korea, where China retains considerable influence, and containing nuclear and missile proliferation in South Asia. Although China has traditionally been a close friend of Pyongyang and provided nuclear and missile assistance to Pakistan, China's stance and interests are changing and the possibility exists for cooperation. In all likelihood, however, China will seek cooperation not solely on the basis of shared objectives on the issue in question, since the United States and Chinese priorities often tend to be asymmetrical even where the specific interests are compatible, but as a quid-pro-quo for U.S. cooperation on other issues of more urgent Chinese interest.

#### U.S. RESPONSES TO PARTICULAR CHALLENGES

The implications of these policy alternatives become more apparent when specific cases are considered. A few of the more important future challenges and relevant questions for U.S. policymakers are outlined below.

##### *Policy Toward Taiwan*

In recent years the United States, with cause, has come close to upsetting key agreements with China over Taiwan's status and the U.S.-Taiwan relationship. A case can be made that all of the three agreements were contingent on certain basic assumptions, starting with the necessity of a peaceful resolution of cross-strait issues, and to the extent that these assumptions have been brought into question by China's behavior, the United States is justified in reviewing and possibly unilaterally adjusting its obligations under the three communiqués.

Apart from the attraction of Taiwan's vibrant—albeit sometimes tumultuous—democratic processes, the island's economic role and importance continues to grow—not just with the United States, but with Japan, other major countries, and the ASEAN states. Further, as noted above, economic interaction between Taiwan and the mainland has grown largely unabated. The basic question for U.S. policy is how hard to push for a role for Taipei in international fora that appropriately reflects Taiwan's status, and whether to change U.S. policy on issues such as providing sophisticated arms and military technology, and how far any such expansion of the terms of U.S. support could go without seriously compromising American interests vis-à-vis China. These are no less difficult issues for Taiwan itself, which will bear the brunt of miscalculations.

##### *WTO Membership for China*

Partially related to the above, the United States will in all likelihood have to confront the issue of WTO membership for China within the next two years, including the question of whether the entry of China and Taiwan should be simultaneous. As the more developed and more open economy, Taiwan will almost certainly be "ready" for membership before China satisfies U.S. objectives. The U.S. Government will come under strong countervailing pressures either to give priority to the goal of integrating China into the international economic order or standing firm on its standard of greater market openness and the satisfactory resolution of specific sectoral disputes such as greater IPR protection. Ultimately, the

American decision is likely to be substantially a political one, with major economic consequences, and also one that is strongly influenced by the stance of Japan and the European Union.

### *Hong Kong*

Issues concerning Hong Kong may well provide the main touchstone of U.S.-China relations, since they involve tens of billions of dollars worth of American investment and trade, and political issues with a high emotional content. Several basic questions for the Administration and Congress include: (1) whether and how best to seek to influence China's handling of the Legco and how to respond in the likely event that it is dissolved; (2) how to judge whether Hong Kong is continuing to respect U.S. procedures governing the protection of sensitive dual use technology against diversion, and how to respond if Hong Kong loses the ability to maintain its independence on dealing with this issue; and 3) in a more general sense, at what point to reconsider Hong Kong's status as an independent bilateral trade and investment partner, should increasing Chinese control neutralize the territory's autonomy.

### *Nuclear and Missile Proliferation*

The United States also will likely face continuing challenges in dealing with China's role as source of nuclear and missile technology to Pakistan, Iran and other countries in conflict-prone areas. During mid-1996 relations were strained by evidence that China has supplied complete M-11 missiles to Pakistan as well as 5,000 "ring magnets" for that can be used in centrifuges that Pakistan has constructed to produce enriched uranium. The possible imposition of new sanctions for the missile transfers is still under review by the Clinton Administration.<sup>17</sup>

The United States has made some progress in getting China to agree to adhere to its responsibilities under the Nuclear Non-proliferation Treaty and informally to respect the Missile Technology Control Regime, but the basic impulses that have influenced Chinese policy on such exports do not appear to have changed. These include commercial motivations on the part of military-controlled arms companies, loose control by the central government over sensitive exports, ongoing geostrategic interests in Pakistan and the Middle East, and a comparatively low level of concern about proliferation as a threat to peace or to China's interests. These factors may require the United States to make difficult choices about its own priorities in order to gain Chinese cooperation, or lead to the imposition of U.S. economic and technology sanctions and an attendant decline in U.S.-China relations.

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<sup>17</sup> See Shirley A. Kan, *Chinese Missile and Nuclear Proliferation: Issues for Congress*, CRS Issue Brief 92056 (updated regularly), and Richard P. Cronin, *Pakistan Aid Cutoff: U.S. Non-proliferation and Foreign Policy Considerations*, CRS Issue Brief 90149, (updated regularly).