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MONETARY POLICY, SELECTIVE CREDIT POLICY, AND INDUSTRIAL POLICY IN FRANCE, BRITAIN, WEST GERMANY, AND SWEDEN

A STAFF STUDY

PREPARED FOR THE USE OF THE

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LETTERS OF TRANSMITTAL

JUNE 23, 1981.

To the Members of the Joint Economic Committee:

I am pleased to transmit a staff study entitled "Monetary Policy, Selective Credit Policy, and Industrial Policy in France, Britain, West Germany, and Sweden." This study makes a significant contribution to our knowledge of the way four major industrial democracies use their instruments of economic policy, particularly their financial systems, to promote investment, employment, and economic growth. The study was designed, directed, and edited by James K. Galbraith.

It should be understood that the views expressed in the staff study are exclusively those of the authors and do not necessarily represent the views of the Joint Economic Committee or of individual members.

Sincerely,

HENRY S. REUSS,
Chairman, Joint Economic Committee.

JUNE 19, 1981.

Hon. HENRY S. REUSS,
Chairman, Joint Economic Committee,
Congress of the United States, Washington, D.C.

DEAR MR. CHAIRMAN: I am pleased to transmit a staff study entitled "Monetary Policy, Selective Credit Policy, and Industrial Policy in France, Britain, West Germany, and Sweden."

Chapter I.—Introduction.

Chapter II.—"Credit Policy and Industrial Policy in France" was written by Dr. Stephen Cohen, James K. Galbraith, and Dr. John Zysman.

Chapter III.—"Monetarism and Supply-Side Economics in the United Kingdom" was written by Catharine Hill.

Chapter IV.—"Monetary Stability and Industrial Adaptation in West Germany" was written by Dr. Richard Medley.

Chapter V.—"Economic Stagnation and Social Stalemate in Sweden" was written by Dr. Andrew Martin.

The study is based on interviews with over 140 individuals, including senior officials of Treasury departments, of central banks, leading academic economists, private-sector bankers, and industrialists and trade unionists in all four countries. Special thanks are due to Professor Jacques Attali of the Ecole Polytechnique, Dr. Albert Bressand of the French Institute for Foreign Relations (IFRI), Dr. Ranier Lemor, of the Schleswig-Holstein Landesbank, Harald Rehm of the German Embassy, Villy Bergstrom, Erick Karlsson, Lars-Erik Klangby, and Edward Palmer, who supplied data and read and provided valuable comments on the many drafts. None are responsible for any errors.

Dr. Richard Medley assumed the editorship of the study in its final stages and made an indispensable contribution to its completion. June Copeland handled all logistics and managed the preparation and editing of the study. Lawrence Hollar and Mary Noel Pepys contributed to the research and made valuable editorial comments. Phyllis Stone helped to type early drafts. Lennea Tinker, Debbie DuBrule, and Linda Maisel prepared the manuscript for publication.

The committee also wishes to thank the many able men and women of the U.S. Foreign Service who arranged itineraries, suggested contacts, scheduled interviews, and shared their expertise with the authors of the study.

All the views expressed herein represent those of the authors and do not necessarily reflect the views of the Joint Economic Committee or any of its members.

Sincerely,

JAMES K. GALBRAITH,
Executive Director, Joint Economic Committee.

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I. INTRODUCTION

By Chairman Henry S. Reuss

Much of the Western industrialized world faces a severe crisis of industrial adjustment. High energy costs, declining productivity growth, trade deficits, inflation, and growing unemployment haunt Europe and North America. These conditions have existed in most places since at least 1973. They form the troubled backdrop of the story with which this study is concerned.

All the nations of the world have been forced to come to grips with the disappointing economic realities of the past 8 years. Each country has sought its own way out, given its traditions, its political and economic institutions, the ideology of the government in power, and the particular circumstances of its role in the international economy. Some have succeeded. Others have managed a sequence of short-term difficulties without developing a long-range program for adjustment and growth. Still others have failed to manage either the short-term symptoms of crisis or its underlying causes.

This is a study of comparative institutions and policies in four countries which are, like the United States, developed industrial democracies. The four are France, West Germany, Great Britain, and Sweden. In each case, the study has tried to give an account of the economic, political, and institutional context of policymaking, so as to preserve, rather than efface, the singular elements which make for success or lack of it from one place to the next.

Nevertheless, broad themes can be identified which make for comparability across the four cases. All four have lived through the same historical period, with the expansionary, growth-oriented policies of the sixties and the Vietnam war boom giving way to the inflation of the early seventies, fueled by the oil shock, which led to the recession of the midseventies, partial recovery from 1976 onward, and finally a second inflation and second oil shock at the end of the decade. All four faced problems of short-run crisis management, and all experienced the need for long-run structural adjustment to restore the competitiveness and profitability of industry, particularly in export markets, while rationalizing production and shifting away from such traditional components of the modern industrial base as shipbuilding and steel. Each country, in the end, relied on its system of credit and finance in making these shifts.

Differences in the structure and management of credit and finance emerge as the key element in the design of short-run and long-run economic policies in the four countries. In France, a highly articulated, well-organized, and centrally guided banking system permits the implementation of an activist policy of adjustment across the entire industrial spectrum; from shrinking the traditional manufac-

turing sector through expansion of potential export growth industries to rationalization of the heavy industry base. In Germany, many of the same functions have been accomplished by private industry and the financial system on their own, under the general macroeconomic environment specified by the authorities, but without a centrally articulated program of rationalization. The uniquely cooperative nature of the German economy, forged in hardship, makes the commitment to adjustment widespread, and its implementation relatively smooth.

In the British case, a highly developed, internationalized financial market severely restricts the effectiveness of selective credit market mechanisms, whether public or private, in effecting long-range adjustment. As a result, British policy and the British economy have lagged behind Germany and France in achieving adjustment. Britain has concentrated instead on use of macroeconomic instruments, including, since early 1979, a dramatic and still unfinished experiment with monetarism. Sweden, for its part, has an institutional setup with a clear potential for effective adjustment, but this potential has not been realized, largely because of the political deadlock that has gripped Swedish politics since 1976. Swedish credit policy, therefore, has focused on crisis management, and not without success.

The focus of this study thus is on the relationship between industrial adaptability and the mechanisms of investment finance. This necessitates analysis of a crucial aspect of economic policy: attempts to control the aggregate growth of money and credit. Three of the countries—France, Germany, and Britain—set explicit targets each year for money stock growth. This study will show that the process of monetary control fits more closely with the particular strategy of industrial adjustment each country has evolved than with connotations that simple versions of theoretical monetarist economics claim for them.

The structure of each essay reflects the institutional arrangements and the relative importance of different instruments and policies in each economy. No effort was made to force all four cases into a single conceptual mode.

The normal channels of economic change in France are the conscious agency of the French state. Therefore, the chapter on "Credit Policy and Industrial Policy in France" is concerned with official policy, and with the institutions which the French so readily establish and modify in order to achieve policy objectives. It is a complex story, partly because the politics and the public relations of the present French strategy are not altogether straightforward. The essay strives to give a broad survey of the relevant financial institutions, of the tools available to authorities for influencing the flow of credit, and finally of the industrial policy in whose service the tools and instruments are being put.

The genius of the German economy is its balanced mix of public and private institutions, all of which place a fundamental priority on economic stability. There are five "pressure points" of countervailing power in modern Germany, and each contributes constructively to the advancement of the economy as a whole. The five are the government, the Deutsche Bundesbank, the banks, industry, and labor.

Government contributes a climate of political stability and a high level of social services, including a very high quality of urban and social infrastructure. The Bundesbank contributes monetary stability. The banks, particularly the large universal banks, contribute a range of services to industry and a commitment to the long-term viability and growth of German business that reflects the unique institutional environment of German banking. The labor movement contributes industrial peace and adaptability in return for high levels of employment and some voice in major corporate decisions. The business sector—by far the most decentralized of the five—contributes a willingness to invest, to innovate, and to compete vigorously in international markets.

The chapter on "Monetary Stability and Industrial Adaptation in West Germany" shows how these five pressure points have interacted in the past to produce an unparalleled industrial performance without the kind of deliberate official industrial policy that characterizes adjustment in France. Special emphasis is given to the role of the Bundesbank in setting the climate of expectations which makes Germany's successful performance possible. The essay concludes on a sobering note, however, as it reflects the concern shared by many Germans that their carefully crafted mechanisms may not be sufficient to meet the deepening structural problems of the 1980's.

To most Americans, the problems of the British economy are a familiar litany of woe: high inflation, low investment, low growth of productivity, declining industrial competitiveness, and, in recent years, increasing unemployment and a declining standard of life. The causes of Britain's troubles are controversial, as are the possible cures. What distinguishes British governments is a clear sense of responsibility for economic conditions. British governments of all stripes traditionally have pursued an activist macroeconomic policy. In past times, the exchange rate and the unemployment rate have served as the parameters of that policy, and hence many critics have accused British policy of enforcing a counterproductive cycle of stop and go which itself has contributed to a worsening structural picture.

Under Mrs. Thatcher, there has been a dramatic reorientation to a macroeconomic focus on the inflation rate and the "supply-side" of the economy, to the derogation of all other objectives. The methods of that policy are clearly monetarist in inspiration, though whether they are monetarist in application is a point of some controversy. It is certain, however, that the British experience, to date, provides a case study in the hazards of attempting to apply a rigid and abstract set of principles to the functioning of an actual economy—particularly one which is in severe structural disequilibrium at the outset. The chapter on "Monetarism and Supply-Side Economics in the United Kingdom" outlines the course of British policy through the first 18 months of Mrs. Thatcher's government, and describes the various evaluations of that policy.

Sweden presents a case of a small open economy beset with problems requiring long-term structural adjustment. Unfortunately, the country faces a political deadlock preventing either the government or the opposition strategies for such adjustment from being put into effect. The Swedes have responded by using credit policy to manage the main symptoms of the crisis, which are the public sector and current account deficits. Swedish credit policy, which operates in an environ-

ment of strong tax incentives for housing and a large nonbank financial sector, offers some of the closest parallels to the difficulties currently encountered in the United States.

Over the years, Swedish political economy has benefited from a fertile tradition of innovative economic thinking and institutional design. Much of this is not well known to nonspecialists. The chapter on "Economic Stagnation and Social Stalemate in Sweden" is therefore composed of two compendious halves, a first which describes the history and institutional setting of the Swedish debate over economic adjustment, and a second which provides a history of economic policymaking since the defeat of the Social Democratic government in 1976. The Swedish case demonstrates with great clarity the unavoidable link between strategies of adaptation and the politics of income distribution.

The study provides a cross section of four widely differing approaches to three policy areas: industrial policy, selective credit policy, and monetary control.

The main message here for the design of industrial policy is the need for institutional innovation adapted to particular conditions of each country. The nature of the institutions and attitudes which make centralized direction possible in France precludes such activity in Britain, at least without major social and political change. The banking institutions of Germany have a relationship with each other and with industry that differs fundamentally from that in Britain. It is not possible to identify specific programs which, if imported to the United States, would yield magical improvements in our investment or productivity performance. It is necessary to look at the entire picture, to consider fundamental questions of institutional design, of governmental priorities, of power structures in society, and of the long-range objectives and the daily attitudes which business, labor, and government bring to their relationship with one another. It may be significant that the two countries which are moving most successfully toward industrial adjustment, Germany and France, are the two which fundamentally have rebuilt their economic and social structure over the past 35 years. This basic similarity may be more important than the vastly different routes to adjustment pursued by these two countries.

Selective credit policy, likewise, has different possibilities under differing institutional systems. In France, selective credit policy is a principal instrument of the state in the industrial realm. In Germany, selective credit measures are taken by the banks in the long-run interests of German industry, but the state plays only a minor and occasional role. In Sweden, selective credit measures play a key role in housing finance, but they largely have been avoided for industrial purposes. The British experience in this field has been one of frustration as a series of experimental measures have succumbed, first to the enormous openness and flexibility of British financial markets, and later to political opposition.

The message is that selective credit policies, which are feasible, and which can be effective, must be tailored to the financial environment of the country. In particular, it appears that measures which affect the banking system can be used to effectively channel credit only if the

nation's markets offer only limited access to nonbank source of credit. However, where the possibilities of unregulated substitutes for bank credit are ample, selective credit policies are likely to fail.

Monetary policy is equally adapted to the circumstances of each country. As noted above, Britain, France, and Germany all announce annual targets for the growth rate of some measure of the money stock. But, these measures range from very narrow (the Central Bank Money Stock in Germany) to very broad (sterling M3 in Britain), and no two countries attach the same official importance to targets in the policy-making process. In addition, the methods by which monetary control is implemented range from a combination of interest rates and fiscal policy in Britain to direct quantitative control over bank lending in France.

As the reader of these essays will discover, the philosophies underlying the establishment of monetary targets differ as well. Only in one country—Britain—and only in a part of that country's official establishment, is monetary control viewed as the sole or even the major weapon against inflation. In Germany, monetary control is but part of a joint public-private commitment to stability, which permeates the wage process and the nexus of finance and investment. German officials have a highly developed sense of the complex interdependence of this system, and of the relatively small role of monetary targeting within it. In France, monetary control has a kind of shadow existence. Monetary targeting exists, but it is difficult to trace the consequences of the target-setting exercise for the conduct of policy which affects money and credit expansion. One is tempted to assign the monetary control process a secondary role in an evaluation of the nature and purposes of financial policy in France.

This study leads only indirectly to recommendations for the design of industrial policy, selective credit policy, and monetary policy in the United States. It is a developmental exercise. Its purpose is to move the debate beyond simple dichotomies, such as the distinction between picking "winners" and "losers" in industrial policy, and beyond simplistic theories, such as the idea that a rigid commitment to the stable growth of some particular measure of money stock can, by itself, cure inflation at an acceptable social cost. The study seeks to provide a relatively thorough understanding of how other nations have tackled the adjustment crisis of the seventies and eighties, with the hope that it may lead to a realistic understanding of how the United States should react to its own economic problems.

II. CREDIT POLICY AND INDUSTRIAL POLICY IN FRANCE*

The oil shock of 1973 brought the serious structural problems of the French economy to the surface, underlining the need for a new approach to economic development, and, in particular, the categorical imperative of improving France's position in the structure of international trade. An adjustment policy got underway quickly. The impetus to change increased with the installation of the Barre government in 1976 and with the evaporation of effective Left resistance in 1977 and thereafter. As the policies of the Barre government have gone forward, the critical importance of monetary and credit policy has become progressively more apparent.

This essay will review the strategy of French economic policy that has developed since the oil shock of 1973. The presumption is that a "strategy"—a coherent set of long-range goals toward which individual policy actions are directed—does in fact exist.

French economic policy works on several levels of perception and reality at once, and particular policy actions often are designed to reconcile the separate and even contradictory long-range goals of different players. Therefore, difficulties of interpretation arise, not in identifying a single coherent strategy from a set of policies, but from the fact that one usually can identify several.

One group of observers, with the implicit blessing of French officialdom, has chosen to view the strategy through the wishful optic of its own political position. Thus, the Barre government earned international plaudits, particularly among economists and in business circles, for its outspoken advocacy of market freedom competitive discipline, and a reduced intervention by the state. There were significant steps which appeared to lead in this direction. Among them were the liberation of controlled prices in 1976, the establishment of quantitative targets for control of the growth of the money stock in the same year, the derationing of the bond market in 1979, the *loi Monory* providing a strong financial incentive for small investors in the stock market, and various measures to strengthen private investment, such as a proposed 10-percent investment tax credit.

However, when these steps are viewed in conjunction with others over which the Barre government has presided, a different perspective emerges. Commitment to the monetary targets and commitment to a strong and stable franc coexist—uneasily. The French government continues to pursue a gigantic program of state-owned and state-directed finance of nuclear electric power generation. It has, in 1978, restructured the steel industry under state-appointed management. It

*This essay was completed before the election victory of Francois Mitterand over Valery Giscard d'Estaing on May 10, 1981. The adverse consequences for employment of the structural change strategy pursued by the Barre government and described here proved to be a decisive ingredient in the socialist victory.

has strengthened rather than weakened controls over the quantity and composition of bank lending, and it has created a maze of interministerial committees and special units of parapublic lending institutions devoted to the organization, promotion, and finance of high-technology export-oriented business.

The French state is undeniably engaged in a significant overhaul of its policy capabilities and instruments. But, in so doing, it has retained, and will retain, its capacity for strong selective intervention. Its strategy, in short, is to revise its methods of intervention, to make them as sophisticated as the complex and internationally competitive structure of the French economy now requires, and to concentrate them out of the public eye in the labyrinth of the French financial system.

This essay begins with a short review of French economic policy from 1945 to roughly 1970. This was a period of substantial success, but also of emerging problems, which became inescapable after 1973. The nature of the problems is outlined briefly.

The next section describes the liberal program of the government of Prime Minister Raymond Barre. This program included three basic elements: measures which were intended to strengthen French private exporting industry, measures intended to strengthen and liberalize the capital markets, and measures which were intended to reduce inflation, primarily by establishing indirect control over the money supply.

Next, we take a closer look at the range of financial instruments which the French government actually uses to influence the evolution of the French economy. These include, first, a detailed program of control over lending at the retail level, second, an array of special intermediaries whose services are at the disposition of the state, and, third, the activities of the Treasury itself. The recent development of these instruments suggests an interpretation of French industrial policy which is substantially more activist than that advanced at the official level.

Finally, the essay provides three case studies of French policy in the industrial realm. These cover nuclear electric power generation, steel, and automobiles.

The Old Dirigisme and Its Problems

France has a set of institutions which grew out of the long postwar reconstruction effort, an understanding of which is prerequisite to an understanding of the current evolution of French economic policy. These institutions include the Planning Commission, various credit institutions, and the Treasury itself. In the past 10 years, however, their role has changed. Some have been restructured, and the influence of others, notably the Plan, has been dramatically reduced. Others have evolved in ways compatible with the new direction of French economic policy.

The Commissariat General du Plan is the best known of the institutions of French reconstruction. The Plan was established immediately after the war, partly at the urging of the American administrators of the Marshall plan, in order to establish coordinated 5-year

objectives for the reconstruction of France's devastated basic industries. Under the leadership of Jean Monnet, a simple but ambitious set of goals—for an average increase of 25 percent in basic industrial capacity—was established and substantially met in the First 5-Year Plan.

Over the succeeding decades, the Plan grew both more sophisticated and less influential. A bent for econometric analysis reduced its audience, but did not permit it to keep pace with the growing complexity of the French economy or to adapt to its increasing openness to international markets. As of the mid-1970's, the Plan was essentially cut out of the day-to-day process of decisionmaking on French economic policy. It has survived, however, as a think-tank institution, and may be regaining influence as the focal point for thinking about the long-term structural adjustment of the French economy.

The instruments by which the objectives of the early plans were put into effect were simple and direct. The state spent money, the state lent money, and the state owned and operated major enterprises in both the infrastructure and the final goods manufacturing sectors.

The direct budget funds of the state were channeled by the Treasury to industry and to subsidized housing—generally moderate and low-income, multifamily apartments—by the Economic and Social Development Fund (FDES). In addition, the state directly sponsored the expansion and/or modernization of the large nationalized industries, particularly the railroads (SNCF), the Parisian mass transit authority (RATP), and Electricite de France (EDF). In the competitive sector, a world-class automobile company (Renault) and a respectable aerospace industry were among those that grew up in the postwar years under state ownership or supervision (though not necessarily both).

In addition to direct subsidies, the postwar French planners established or refurbished a series of specialized credit institutions to ensure the access of priority industries to credit at reasonable cost: the Credit National to serve industrial needs, the Credit Foncier to serve housing, and the Credit Hotelier to finance the modernization of the French hotel trade. All are parapublic joint stock companies which operate under the close supervision of the Treasury in the Ministry of Finance. In addition, the largest private commercial banks were nationalized in 1946, and they cooperated with the state's objectives in reconstruction finance. The Banque Francaise du Commerce Exterieure (BFCE) took on part of the mission of financing the expansion of French exports. Thus, in the early years, the state either supplied or directly controlled a major fraction of available capital funds.

To moderate inflation, and also to prevent monopolistic pricing practices, a comprehensive system of price controls was kept in place and intermittently enforced from 1946 until 1976.

Interest rates were also controlled. Rates in the bond market were administered directly by the Treasury. The interest rate on bank credit was manipulated by the Bank of France, through its power to rediscount eligible commercial paper at a fixed discount rate and thereby to control the marginal cost of funds to the banks. In general, interest rates were kept low and relatively stable from the 1940's until the late 1960's.

Its postwar economic institutions equipped the French state with the tools for a comprehensive strategy of promoting growth. The gamut of French industry (steel, shipping, aerospace, housing, telecommunications, computers, railroads, and electricity) all benefited from state support and a state-created environment of steady increases in demand. There were also serious errors of economic judgment: the luxury liner Le France, the Aerotrain, Le Concorde, and La Villette (a mammoth and misplaced slaughterhouse in central Paris) were among the showpieces of French industrial policy that were commercial or technical failures. But, in general, the policy was a success, which assured that resources were available for growth. France had the second highest average growth rate over the postwar period and the second highest standard of living among major European countries by 1970. French growth of real GNP averaged 5.6 percent from 1954 to 1970, compared with 5.7 percent for Germany and 2.8 percent for Britain.

Despite this success, it was clear even before the oil shock that the postwar French state was not sufficiently flexible to meet the challenges of supporting and promoting a truly diversified modern exporting economy in a rapidly changing world marketplace.

In the first place, central decisionmaking about industrial investment became too complex to handle. What had proved adequate for the early reconstruction of steel and cement capacity was not adequate for, say, a computer peripherals industry with hundreds of products and complex design, production, and marketing decisions. And, as the share of exports in French industrial production rose toward 50 percent, the need arose for mechanisms to gather international market information and to respond flexibly and rapidly to changing competitive conditions. Decentralization of investment decisionmaking became a technological and a marketing imperative.

In the second place, price controls were becoming politically unworkable. Price controls had never served as an effective weapon against inflation; inflation in France over the postwar period was habitually among the highest in Europe. French inflation from 1950 through 1970 averaged 5.1 percent, compared to 1.9 percent for Germany and 3.7 percent for Britain. What price controls did do was give the state an important potential lever over the profit margins of companies, and hence over their decisions to invest, over their wage negotiations, and even over questions of plant scrapping and bankruptcy. Over time, enterprises came to rely on the state to raise permissible prices in line with costs, and thereby insure against commercial failure. This system would work tolerably well so long as total demand remained high enough to disguise the progressive loss of cost competitiveness among marginal firms. But it clearly could not withstand a major recession or supply-side price shock, either of which could send legions of private firms scurrying to the state for protection.

Third, as the proportion of trade in GNP increased progressively, from 8.5 percent of exports in GNP in 1960 to 12.7 percent in 1970, international payments flows became increasingly important. Thus, it was increasingly difficult to isolate French interest rates from world

financial markets. A series of currency crises in the late 1960's, the introduction of floating rates in 1971, and the development of the Eurocurrency markets all put pressure on French authorities to find an alternative to a generalized policy of low and stable interest rates as an incentive for investment.

The oil shock brought all of these problems to a head, and a clear short-term agenda for a restructuring emerged quickly thereafter. It was necessary to mitigate the impact of petroleum price increases by conservation and substitution; therefore a massive program of accelerated investment in the available alternative, nuclear power, seemed required. The development of competitive export sectors had to be secured, which meant large investments across a wide range of industries; therefore, entrepreneurship would have to be encouraged and channels for financing entrepreneurial effort would have to be provided. State structures which inhibited adjustment, such as price control, had to be altered, and the subsidization of some clearly uncompetitive enterprises reduced. Finally, owing to the denomination of oil in U.S. dollars on the international marketplace, the required restructuring had to be done under the constraint of a high and stable franc. This meant that French interest rates would have to approximate world market levels, since otherwise short-term capital flows would tend to undermine the value of the franc.

How the necessary restructuring could be accomplished was not so clear. The program of export-related investment and energy substitution implied the mobilization of real resources which, since France had entered the decade at virtual full employment, meant a reallocation from other uses. The undecided questions were, first, whether to bring the transformation about with market incentives or by state action, second, whether to divert the real resources required from consumption or from other types of investment, and third, how to ensure the availability of the necessary finance.

As it happened, the first jump in the oil bill was paid almost exclusively from the profits of private French industry. Unit labor costs rose with prices—at 16.2 percent and 13.7 percent in 1974, respectively—and therefore real wages and consumption did not fall. Neither did state expenditure. On the contrary, the actions taken by the state produced a huge rise in state investment, particularly in nuclear power, in aerospace, in armaments, in the system of highways, and in telecommunications.

Consequently, between 1970 and 1979 real investment by the large national enterprises, led by Electricite de France, nearly doubled, while that of the private industrial sector did not rise at all. Public and private sectors alike embarked on an all-out export drive, and the Bank of France lifted interest rates sharply, from an average discount rate of 7.5 percent in 1972 to 13.0 percent in 1974. Thus, the needed investment occurred under conditions which assured that the major increases came in the public rather than the competitive private sector. The adjustment succeeded: the balance of payments was reestablished, the franc recovered, and the rate of growth remained at or above that of the European community as a whole.

But, ruling circles in France were profoundly dissatisfied with this first-round adjustment to the oil shock. There was, and is, a perceived

need for still greater industrial competitiveness, for still better export performance, and for a more flexible responsiveness to changes in world consumer demand. This the great state enterprises probably could not produce. Therefore, a second strategy of transformation emerged from the first, under the aegis of the government of Prime Minister Raymond Barre. This second strategy began to take shape when the Barre government took office in 1976, and gathered force in response to the opportunity of the 1978 election results and to the second oil shock of 1979.

The Liberal Program and Its Accomplishments

The government of Prime Minister Barre took office in 1976 under a public commitment to confront both the long-term structural problems of French economic policy and the immediate crisis of the oil shock and its aftermath. The new government promised to liberate the French economy from the rigidities of state control, allowing firms to prosper or die according to their competitiveness in domestic and world markets. In practice, many steps were taken which support the view that this is what, over the succeeding 4 years, the government actually did. These steps can conveniently be classed into three categories: those intended to strengthen private French firms at the expense of the public sector and of consumers, those intended to free up and to modernize the financial markets, and those intended to establish indirect control over economic growth and inflation and so to ease the heavy hand of the state on the private sector.

Strengthening the Firm

A clear priority of a liberalizing economic policy was to strengthen the French company sector, and in particular to reestablish the profits of those companies on whose export performance the future of the French economy from the rigidities of state control, allowing firms to namely, to reduce the nominal rate of tax on net company income, is considered politically infeasible in France, and is in any case ineffective during a recession. Therefore, the new government adopted a more circuitous route.

First, and fundamentally, the Barre government committed itself to a restrictive macroeconomic policy and through it to a sustained rehabilitation of the exchange rate. It raised indirect taxes, and effected a less-than-full indexation to inflation of income taxes on upper income workers. It instituted a set of incentives for long-term saving, designed to immobilize the traditionally vast liquidity of the household sector.[1] It raised interest rates and used them flexibly in response to world financial conditions. In response to recession and to the macroeconomic policies which abetted it, imports rose less rapidly than exports, and the trade balance went from a deficit of 4.3 billion francs in 1974 to a surplus of 716 million in 1978. Interest rates worked against short-term capital outflow. The trade-weighted value of the franc rose 22 percent from its trough in the last quarter of 1976

[1] These included a housing-related savings incentive program, under which years of saving at a given level earns the right to a subsidized mortgage loan.

through the first quarter of 1980. The value of the franc in comparison with the dollar rose 15 percent.

The exchange rate, in turn, placed great competitive pressure on the declining private traded-goods sector, and so on wage settlements in that sector. Since this sector is relatively labor intensive, it is very influential over wages generally. Hence, a high exchange rate had the consequence of squeezing wages directly through its effect on profits in demand-elastic, labor-intensive exporting and import-competing sectors. It also squeezed wages indirectly in the high-technology exporting sectors, through the horizontal interdependence of wage settlements in the economy. But, since the high-tech sectors produce for clients (including the state itself, foreign states, and users of high technology goods generally) whose demand is relatively inelastic, sales and profits in these sectors were not squeezed. Thus, the Barre government's policy adroitly exploited differences in the market environment of favored and nonfavored industries. The exchange rate policy encouraged the shrinking of the traditional sectors, while not inhibiting the expansion of the new French exporting enterprises.

The exchange rate also worked to restore the profitability of resource-importing enterprise, by making their inputs relatively cheap—especially oil.

Second, the Barre government ended the postwar regime of price control. Whether price controls had even posed more than a temporary and selective squeeze on corporate margins is debatable. Nevertheless, their liquidation removed the possibility. It also weakened the government's political responsibility for the survival of marginal corporations thereby making possible a strengthening of the corporate sector in another way: through the elimination of uncompetitive enterprise in declining sectors. The real function of price controls for many industries—such as the bakeries—had for years been to set a high floor price which enabled inefficient competitors to remain in business. The removal of price controls eliminated the first of the political safety nets that might otherwise have compelled the French government to come to the rescue of firms in the textile, leather, baking, and other declining sectors as they felt the squeeze that would shortly be applied on them through the recession and the exchange rate.

Third, the new government took several specific steps to shift the burden of financing the state from the company to the household sector. It raised the charges of public corporations, thereby reducing their deficits and shifting the burden of financing such activities as commuter and intercity rail from the tax base, which includes companies, to the user base, which does not. It shifted the structure of petroleum taxes toward gasoline and away from the industrial fuel uses. It increased the share of employe contributions to social security as compared with employer contributions. And the government proposed a 5-year Investment Tax Credit, equal to 10 percent of the value of investment.

Strengthening the Capital Markets

A strong nonbank capital market has historically not been present in France, where demanders of capital have traditionally gone to the banks and where banks have looked to the state for guidance and for

security. The Barre government developed a program which it contended would dramatically restructure French capital markets.

The stock market has been the first and so far most prominent focus of action. The government has undertaken to transform the Paris *Bourse* from the essentially 19th century institution that it is into a modern stock exchange, and to make investment in stocks, through mutual funds, an economically attractive proposition for France's small savers.

The most important of these actions was the *loi Monory*, which provides a tax deduction for the first 5,000 francs added to a stock portfolio each year. The effect of this very strong incentive is to increase the effective rate of return on stock purchases to 30 percent per annum or higher for an average taxpayer, making such purchases virtually irresistible. In addition, the government has begun to modernize the technical operations of the exchange, with the introduction of continuous (instead of once-a-day) share price of quotations, electronic information services, and with the replacement of paper title to shares with a system of electronic accounts.

The bond market has likewise benefited from a liberalization and expansion in the past few years. Previously, virtually the entire bond market—rates, total volume and composition of issues—was under the direct control of the Treasury. Under the Barre government, rates have remained controlled, but the calendar of issues has come under the authority of a committee of underwriting banks which meets every 15 days under the chairmanship of the Treasury. This means that, in principle, all who seek to finance at a predetermined rate can do so, provided the calendar does not interfere with the issuance of state debt. In practice, whether marginal issuers can truly get their offerings scheduled within a short period of time is unclear. French officials will only say that their emphasis is on meeting the bond demands of smaller private firms, and that this is accomplished by requiring the large national firms, preeminently EDF, to borrow in New York. Without doubt, the bond market has been growing rapidly in the past year, although at an annual rate of 110 billion francs of new issues it still represents only a small proportion of new capital formation.

The banking sector remains by far the predominant source of capital for investment in France—total loans are four times the value of outstanding bonds. Here actual progress toward liberalization is harder to perceive. What French officials put forward instead is more of a program—a set of aspirations which, if realized, would transform French commercial banks into the independent and competitive enterprises that commercial banks supposedly are elsewhere in the world.

A first element in this program would be to persuade commercial banks in France to hold marketable securities on their own accounts, and so to give them independent cushion against risks. At present, banks do not hold such investments, because they are assured of adequate liquidity automatically at the discount window of the Bank of France. An end to automatic discounting would, it is argued, create more prudent institutions. It is also a prerequisite if France is to move from quantitative control of bank lending to indirect control over money creation.

Next, there was an ambition in the Barre government to centralize the decisionmaking of the large commercial banks themselves. A recent blue ribbon panel argued in a widely noticed report that the three large nationalized commercial banks have too much authority concentrated in Paris, and too little in the provinces to permit flexible response to the needs of small and medium exporting enterprises. (However, observers who know the long history of lipservice to provincialization in France may be justified in taking the Mayoux report with a grain of salt.)[2]

Last, and towering over all other capital market measures, is the question of the future of the *encadrement de credit.* This is a system of quantitative targets for the growth rate of lending year-over-year which applies to almost all lending institutions and which is the principal instrument of monetary and credit policy in France. The *encadrement* effectively freezes bank market shares in France, and so has a paralytic effect on interbank competition for new lending. Its removal, and replacement by an indirect form of control over aggregate money creation, is the essential component and the *sine qua non* of true liberalization of the capital market in France.

A move toward true open market operations as practiced in the United States is regarded as a utopian dream, requiring a substantially more drastic restructuring of the whole financial system than is conceivable at the present time. French officials recognize this, and speak hopefully of a policy based solely on interest rates (as in Britain) or on the ratio of bank liquid assets to total credit extension (as in Sweden and Germany).

But here they are stuck. The *encadrement* has been in place continuously for 6 years, after having been used intermittently for years before that, and there is no evidence that there is any movement away from it. The reason is that the *encadrement* serves a fundamental purpose in French policy which indirect measures of control cannot serve as well.

Reducing Inflation Through Monetary Control

The foundation of the Barre plan's support in certain academic circles and in the foreign financial press has been its monetarist macroeconomic underpinning. The government instituted such a policy, beginning in 1976, by introducing explicit quantitative objectives for the growth of M2, defined as currency in circulation plus total deposits in banks (except savings banks), and by incorporating those objectives into the heart of its macroeconomic planning.

The setting of monetary objectives in France has certain notable features.[3] The authorities establish a single numerical target, and not a range as in the United States, Britain, and Germany. The target is calculated on a December-to-December basis, and is considered by the monetary authorities to be an upper bound only: the authorities do not certify that they will continue to seek the target should conditions indicate a drift below it. The authorities rationalize

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[2] Jacques Mayoux, Rapport du Groupe de Réflexion sur le Developpement des Initiatives Financières Locales et Regionales. Paris: La Documentation Française, 1979.

[3] For a fuller description, see Organization for Economic Cooperation and Development, "Monetary Targets and Inflation Control," Paris: OECD, 1979. Also, OECD, "Monetary Policy in France," Paris: OECD, 1974.

the targets in terms of the *ratio* of M2 to nominal gross national product, and argue that a gradual reduction of this "liquidity ratio" will have the eventual effect of putting the brakes on French inflation.

Monetary targets are set in France by the government itself (that is, by the Treasury), in close coordination with the Bank of France and the state forecasting service (*Prevision*). The targets thus represent a synthesis of economic policy as a whole, and take into account in a unified way the expected growth of the national debt, of private bank lending and expected developments in the external sector.

In accord with its gradualist precepts, the government has progressively and slowly lowered its M2 targets since the initiation of explicit targeting. The initial target of 12.5 percent for 1977 was lowered to 12.0 percent for 1978 and to 11.0 percent for 1979. Given the expected consequences of the second oil shock, the target was maintained at 11.0 percent for 1980, and has been lowered to 10.0 percent for 1981.

The imposition of monetary targets, perhaps more than any other single action of the Barre government except for the abolition of price control, has been taken as a signal of French conversion to free-market principles and of a commitment to the control of inflation. But when one examines the methods of monetary control in France, on the one hand, and the track record of M2 by comparison with the target/limit embodied in the objective, on the other, questions arise.

Monetary targeting did not come accompanied by any major changes in the methods of financial management in France. Monetary control works through the structure of the *encadrement de credit*, through the longstanding institutions which funnel state debt outside the banking system, and through the structures of exchange control and foreign debt management. But these instruments are the essence of the interventionist policies which monetarists and free-market advocates had wished to supplant. The result is an interesting conflict: while overseas observers and particularly monetarists in the financial press have praised the Barre program, economic liberals within the country regard the policy as essentially unchanged from the pre-Barre interventionist mode. To these observers, the monetary objectives are a mere symbol of economic liberalism which papers over the still dominantly statist reality of French economic policy.

The track record of monetary control to date is hazy. December-to-December growth of M2 came to 13.9 percent in 1977, or 1.4 percentage points above target. In 1978, the record appears better: 12.2 percent against a target of 12. However, as monetarist critics have pointed out, the Treasury accelerated revenue receipts in December of 1978 and thereby artificially reduced the money supply in that month. According to these critics, November-to-November or January-to-January data show a 1978 increase of 14 percent for M2.[4] In 1979, IFS data show December-to-December money growth of 11.8 percent, against a target of 11.

French inflation has, moreover, remained virtually unaffected. From 1976 through the second quarter of 1980, the inflation rate remained at or just under 10 percent per annum. Since the middle of 1979, inflation has risen sharply, to just under 15 percent at an annual rate in the

[4] F. Aftalion and P. Poncet, "Trois ans de politique monetaire du Gouvernement Barre: une analyse critique" in Vie et Sciences Economiques, No. 84, January 1980, pp. 14–23.

second quarter of 1980. And there is little evidence that this event has provoked any significant compensatory effort designed specifically to bring the money supply back into line. Nor is there any evident official embarrassment at the failure to control inflation so far. Indeed, in private conversations, French officials appear quite resigned to the inflation rate that is imposed on them in the short run by external events. Their attitude suggests that the true role of monetary targeting may be quite different from the official story. Several objective clues bear out this suggestion.

A first clue can be found in the insistence, at all levels of the French economic policymaking, on the primacy of a high and stable exchange rate. Since a policy of fixed or rigidly managed exchange rates implies a willingness to raise interest rates in defense of the franc, it is inconsistent in principle with a policy of maintaining any particular path of growth of the money stock. This need not be decisive. There may be conditions (e.g., of stable, export-led growth) under which the two objectives are compatible, and it is possible that such conditions currently prevail. Nevertheless, discussions with policymakers leave little room for doubt that, in a choice, the monetary target would be sacrificed to sustain the exchange rate.

A second and more troubling clue is the admitted preference of French policymakers for relatively stable interest rates. There is little enthusiasm in France for the interest rate roller-coasters that have characterized recent financial history in the United States and in Britain. Indeed, officials cite the ability of the *encadrement de credit* to reconcile relatively stable monetary expansion with relatively stable interest rates as a virtue of the French system which may justify the permanent retention of the *encadrement*. This argues that the commitment to indirect monetary control and concommitantly to free interbank competition may be somewhat less than total.

A third and decisive clue about the role of monetary targeting in France can be found by tracing the process of target selection through the policymaking structure.

The annual process of selecting the monetary target begins in the *Prevision*. The forecasters take as exogenous the expected state budget and the structure of the balance of payments. Given a floating exchange rate regime, these assumptions permit projection of the interest rate policy which the Bank of France will have to pursue to maintain a target parity of the franc, and this in turn generates a forecast of the structure of interest rates, of international flows, and of the supply and demand for credit, including bank credit. The final outcome is a projection of the money supply.

The projections of the forecasting service are then furnished to the Treasury, which, taking the projections into account, sets a monetary objective. Treasury officials concede that there are political and judgmental elements in this decision, with heavy emphasis on achieving the gradual reduction in monetary growth which is the long-range strategy of the government. As a practical matter, the pressures appear to be very strong to set this year's objectives at one percentage point below last year's.

At this point, the process appears to stop. There is no model which can take as input the Treasury's monetary objective and yield as out-

put a prediction of the economy. If, for any reason, the official objective differs from the spontaneous forecast, as under the procedures it well might, the consequences of such a difference are unknown. Officials cite the large and unknown degree of substitutibility between M2 and more broadly defined financial liabilities as decisively inhibiting estimation of the consequences of an active effort to hit a monetary target different from the spontaneous forecast. And there is no evidence that deviations from the targets as the year progresses engender an active policy response.

Viewed up close, therefore, French monetary policy appears not to be derived from the broadly monetarist anti-inflation program for which it passes at a distance. The monetary objectives have a definite purpose. Internally, they serve to tie the planning of the Treasury with respect to the state budget deficit and that of the Bank of France with respect to interest rates together at an early stage of the policy planning process, and so to strengthen the hand of the (traditionally less powerful) Bank. Externally, they serve as a symbol of the long-range economic perspective of the Barre government, and of its determination to work deliberately and gradually on France's economic problems. But the monetary objectives as such have no instrumental role in determining French macroeconomic policy actions. Once set, they appear to exert minimal influence over the month-to-month or quarter-to-quarter conduct of economic policy in France. Short-run interest movements are dominated by foreign capital markets and the need to maintain the exchange rate—and not by efforts to correct deviations from the target money growth path.

To summarize: the Barre government has, over the 4 years of its tenure, introduced a wide range of measures whose announced, and widely applauded, intent has been to liberalize French economic policy and to strengthen the private sector in France. They have acted to restore profit margins in the private traded goods sector, in ways which lay the emphasis on promotion of high-technology exportables. They have acted to strengthen and liberalize the stock and bond markets, and they have offered numerous suggestions, if so far little action, which embody the same principles with respect to commercial banking. And they have established a framework of indirect macroeconomic control, based on objectives for the growth of a broadly defined money stock, which meets in form at least the prescriptions of monetarist economics. However, both the method of implementation of these targets and the relative lack of success in hitting them strongly indicate that monetarism runs only skin deep and that the true nature of French financial policy is not to be found in such simple theoretical constructions.

The Instruments of Credit Policy

As described in the preceding section, the Barre government can point to a long list of actions and of proposals which support its claim to the mantles of economic liberalism and sound money policy. But when one conducts a more complete survey of recent policy, the basis for this interpretation weakens. And the complaints of the economic liberals—whose disenchantment with the monetary policies of the Barre government was described above—begin to appear as symp-

toms of a much broader clash between the professed philosophy of the French government and the actual course of French policy.[5] This, finally, leads to an alternative view of the philosophy behind French policy, one which is much more compatible with the historic role of the conservative French state, from Colbert forward, in the economic development of the nation.

The evidence for an alternative interpretation can be mustered, first by looking more closely at the process and policy of credit control, second, by examining the functions of the parapublic intermediaries, and, third, by examining the functions of the Treasury, which is the nerve center of economic policy in France.

Credit Control

Recent developments of credit policy in France point, almost without exception, toward more and greater control rather than less.

A bellwether of the trend in French credit policy is the evolution of the *encadrement de credit*. This instrument, so often presented as a clumsy and undesired but necessary implement of monetary control, is in fact a subtle, sophisticated, and flexible tool of a selective credit market policy. And, in the last few years, it has been made more rather than less effective.

The *encadrement* works by stipulating a target rate of increase in net assets for each financial institution. The penalty for exceeding the *encadrement* target is the imposition of a reserve requirement which rises geometrically with the extent of the transgression, and which is prohibitive at very slight levels of excess lending. There is also an implicit penalty for falling short of the *encadrement*, since any shortfall is built into a bank's base for the calculation of future credit ceilings, and therefore produces a permanent and cumulative loss of market share. In consequence of the two-sided constraint imposed on new lending by the *encadrement*, French banking institutions have become very sophisticated at controlling the path of credit expansion so as to hit the target set by the authorities.

The *encadrement* influences the composition of lending in three ways: by influencing the credit decisions of individual banks, by favoring certain types of lenders at the expense of others, and by constraining the aggregate quantity of bank lending by comparison with other forms of finance.

The *encadrement* applies to three types of lending institutions in France: listed commercial banks, the business banks, and the National Agricultural Bank (CNCA).[6] Selective incentives are provided to the

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[5] For a further survey of the French financial system and discussion of possible "liberal" reforms, see Jacques Melitz, "The French Financial System: Mechanisms and Propositions of Reform," paper presented to the conference on the "Political Economy of France," American Enterprise Institute, Washington, D.C., May 29–31, 1980.

[6] Listed commercial banks include the three nationalized banks (Societe Generale, Banque Nationale de Paris, Credit Lyonnais), two large private banks (Credit Industriel et Commercial, Credit Commercial de France), and some 370-odd additional domestic and foreign institutions. Business Banks (Banques d'affaires) are dominated by two groups, Suez (Banque de l'Indochine et de Suez) and Paribas (Banque de Paris et de Pays Bas), each of which has a large number of functionally specialized subsidiaries. For example, SOFINCO, one of the largest consumer lending banks in France, is a part of the Suez group. The National Agricultural Bank (Caisse Nationale de Credit Agricole) is one of the world's largest banks. It is the umbrella organization for 94 regional agricultural banks, in which capacity it receives all of their long-term deposits and assumes the risk on their long-term loans. As of the end of 1978, the CNCA had total liabilities of about 277 billion francs, of which 213 billion were outstanding as loans to the CNCA's clientele.

commercial and business banks in the form of partial and total exemptions from the *encadrement* for certain types of loans. At the CNCA, selectivity is enforced by stipulating precise quantitative targets for certain favored categories of lending. Both selective mechanisms have been revamped, but not weakened, in the last 2 years.

Up until 1979, the *encadrement* functioned as a binding target on nonexempt loans by commercial and business banks, combined with no limit on loans for the exempted categories of credit: energy, exports, and "social" housing. As a result, the growth in the latter areas was large and uncontrolled, and the limits of the *encadrement* provided only a most approximate guide to total credit expansion in the banking sector. In 1980, total exemptions were ended for energy-saving investments and for housing, and replaced by a weighting procedure under which loans in the favored areas count less against the *encadrement* (say at 50 percent of their nominal value) than ordinary loans. The effect is to tighten significantly the hold of the *encadrement* over total bank lending, but to leave the incentive intact to substitute favored for nonfavored loans and to increase the differentiation between *types* of favored loans. As a result, loans in foreign currencies (which finance exports) continue to grow, while the growth of certain kinds of housing loans, now only partly exempted, has been cut back dramatically.

Until 1979, the CNCA had been outside the *encadrement* altogether, and had operated instead under limits set by the Treasury, with the Ministry of Agriculture stipulating the volume and composition of subsidized loans which it is within the CNCA's authority to extend. Now, the CNCA comes under the ceiling-setting authority of the Bank of France, just like any listed commercial bank. But the government can still stipulate a precise quantitative target for lending to the agricultural sector. In practice, the government may require that, say, 25 billion francs of a total of 100 billion in new lending be extended to agriculture, of which perhaps 15 billion benefit from a 5 percent interest subsidy. The interaction of an absolute target for loans to agriculture with a maximum rate of growth of total lending set by the Bank of France implies that credit will be rationed to the less favored clients of the CNCA: in particular, loans to individuals and for ordinary housing.

Selectivity across banking institutions arises from the fact that different classes of banks receive different ceilings, ranging in 1980 from 2.5 percent to 7.5 percent total net lending growth. Some French officials maintain that the purpose of this variation is to increase the market shares of smaller institutions and thereby stimulate financial competition. However, this explanation is not widely accepted by French bankers, who point out that some institutions receiving the higher limits are, in fact, subsidiaries of the largest business banks. Bankers point, instead, to differences in the composition of the lending business conducted by various institutions. Thus, banks with a large portfolio of automobile financing are well favored, while large commercial banks whose business runs to large enterprises are not.

There is, finally, the link between the tightening of the *encadrement* and the ostensible liberalizations of the bond and stock markets. Under the previous arrangements, there was no incentive for firms in favored sectors which also enjoyed secure financial standing to deviate from the ordinary French practice of reliance on relatively short-term

bank credit. The new arrangements, which restrict bank credit more effectively, do encourage such firms to make longer term placements on the domestic bond market, or to make new equity offerings. The liberalization of the bond market makes it easier for bond placements to be scheduled, and the new tax breaks for equity investment obviously encourage new offerings on the stock market. Moreover, the residual control exercised by the Treasury over the calendar of bond placements adds yet another calibration to the revised structure of incentives, since it permits Treasury officials to urge, or force, the large national firms into foreign capital markets in order to make room for lesser enterprises in the nonbank capital markets at home.

It is widely agreed that the *encadrement* and its associated selective incentives are effective. French bankers evince a definite respect for the ability of government officials to plug loopholes and tighten loose procedures whenever ways around the *encadrement* have been invented. And there is little financial activity in France in markets which do not come under the *encadrement* or other regulatory control. Officials scoff at the notion of a grey market. Trade credit is about the only acknowledged major source of credit outside the ambit of official quantitative control, and its use is, of course, restricted to the transactions of commercial enterprises with each other.

The French system of retail-level quantitative control over bank lending thus appears very hard to reconcile with the reputation for movement toward laissez-faire monetarism which the government enjoys. Instead, the government has developed, and is continuing to refine, a powerful and subtle instrument of control over the quantity of bank lending, over its composition both within and between institutions, and over the balance of bank lending and other forms of capital finance.

The Specialized Intermediaries

The *encadrement de credit* provides the French state with a tool to manipulate the quantity and the intersectoral composition of the flow of credit within the French economy. It can be used—and has been recently—to restructure the borrowing activities of large enterprises, to sustain automobile finance and hence domestic auto sales, to maintain agricultural exports (and particularly to encourage food processing industries), and to apply a harsh squeeze on unsubsidized housing. It is the broad-gauge instrument of financial selectivity in France.

The specialized intermediaries under the supervision of the Treasury provide a narrow-gauge counterpart to the *encadrement*. This represents a significant evolution in their position. During the period of postwar reconstruction, these institutions—the Caisse de Depots et de Consignations (CDC), the Economic and Social Development Fund (FDES), the Credit National, the Credit Foncier, the Credit Hotelier, and the French Bank for Foreign Trade (BFCE) took direct responsibility for financing the activities of particular sectors, from the state to industry to housing to the hotel trade to exports. Now (except for state debt, which is still issued through the CDC), this role of direct finance has largely passed into the banking sector. The specialized intermediaries have evolved into monitors and entrepreneurs of industrial activity, with only small direct participation in particular

ventures. Their role is to organize the finance for promising new ventures, to coordinate the financial rescue and restructuring of troubled firms, and in other ways to help promote the competitiveness—especially in export markets—of French industry.

The Credit National (CN) is the major specialized intermediary concerned with industry, and its operations are typical of the evolution of French credit policy on the microeconomic level. The CN is—formally—a private company, quoted on the stock exchange, which exists to encourage the growth of industry in collaboration with the government and the banks. Its top officials come from the elite schools of French administration, and form part of the circulating medium of high officialdom which is found in every important policymaking niche in France. The resources of the CN come from the money market, from the CDC, and from the Treasury, and the Treasury retains the right to restrain its borrowing and lending activity directly (although at present no such limits are in force). The direct loans of the CN form about 5 percent of all industrial finance in France, or about 10 percent of loan finance. Eighty-five percent of the CN's portfolio is in industry, with the rest in trade and service activities.

The CN makes several types of loans, all of them under advantageous conditions to the recipient. Of the approximately 7 billion francs of direct lending, half or 3.5 billion will go as "ordinary loans" with an interest subsidy of 1 percent, paid by the Treasury. CN officials state that the criteria for qualifying applicants for such loans are broad and liberally intrepreted, with an emphasis on physical investments, and with some preference for extending the CN presence in lending to smaller firms. Currently, 60 percent of total loans and 30 percent of total lending is to firms with assets of less than 100 million francs.

The other 50 percent of CN lending goes to specially favored sectors, particularly exports and energy, at an interest subsidy of 2 to 3 percent. Here, the CN is more actively involved in the promotion of new activity, in industry analysis, and project evaluation. For example, within the export sector, there are six strategic "industries of the future," designated by an interministerial committee under the chairmanship of the Treasury (CODIS).[7] Loan dossiers for firms in these industries are held and monitored by the CN.

Finally, the CN guarantees loans, and it oversees 3–4 billion in loans annually which have been rediscounted at the Bank of France. Both functions are now considered to be far less important than they once were.

CN officials regard their prime role as that of sentinel for the national interest in the development of industry. A small CN participation in a new export venture, for example, can certify to the banking sector that the project is considered sound, while the absence of such benediction may deter banks from bidding for excessively risky or speculative business. The power to bestow or deny its approval thus exceeds in importance the actual extent of direct financing which the CN grants. And the CN does use its authority in this area to force restructuring of businesses and even industries which have gone sour. In

[7] The six are bioengineering, marine industries, robots, electronic office equipment, consumer electronics, and alternative energy technologies.

a recent example, CN efforts led to a several-hundred-million franc recapitalization of the financially troubled chemical industry. The CN was also deeply involved in the 1978 reorganization and bailout of the steel industry, and it retains a substantial oversight responsibility in that field.

Other institutional instruments of pinpoint selectivity in financial policy have evolved along lines similar to those of the Credit National: toward small but indicative participations in a wide range of private-sector activities, which have the effect of placing the state in the referee's role on the credit worthiness of particular firms and ventures.

An equally characteristic institution of this kind exists within the CNCA. This is the Research and Investment Union (UEI), a bank-within-a-bank with capitalization of 800 million francs and a portfolio of several billions. The UEI is another of those low-profile, high-powered places which attracts executive talent from the Treasury. It makes direct loans and purchases of equity in agricultural activities which the government is seeking either to encourage or to keep alive. The operation uses the resources and the strong capitalization of the CNCA, but takes policy instruction from the ministries, particularly of agriculture. It has been used recently to promote the food processing industries on the cutting edge of French agricultural exports, and to organize and partly finance the rescue and recapitalization of ailing woodpulp processing firms.

The Caisse de Depots provides a slightly different case. It is a type of intermediary virtually unique to the French system, under which the nationwide network of savings banks do no lending of their own. Instead, the CDC receives most of the savings banks' deposits, and is responsible for their redistribution. The CDC lends a part directly to the local governments and to the Treasury itself to finance the state deficit. It lends a part to the Credit National, Credit Foncier, and other special intermediaries. It also places a part of its funds on the stock and bond markets. CDC holdings are estimated to amount to about 5 percent of stocks outstanding on the Paris Bourse, and its placements absorb perhaps 30 percent of new bond and 20 percent of new stock offerings. It offers the residual on the money market for the use of the business banks, which are chronically short of deposits, and of the commercial banks.

The CDC thus controls the levers on a wide range of credit policy instruments. With the Bank of France, it controls the marginal cost of money to the banking sector and thus powerfully influences interest rates, thereby assuring the preservation of the credit-rationed character of the French banking system. It can control the degree of absorption of the state deficit by the nonbanking sector, and hence the impact of the deficit on credit expansion. It can, at least potentially, influence prices on the stock and bond markets, in either a general or a selective way. And it can provide direct finance to industry in extreme cases if that is deemed necessary.

There is every indication that the development, revamping, and adaptation of existing institutions into highly selective instruments for micro-level intervention in the French economy is a deliberate response to an acknowledged need. Officials of these institutions have a clearly defined sense of mission, namely (in most cases), the promotion of French exports in an increasingly diversified world market. They

see the evolution of their own institutions toward smaller but still strategic participations in industrial and agricultural financing efforts as a necessary and rational adaptation to the world markets of the 1980's. They betray no sense of any inconsistency between their own activities and the precepts of the Barre government. Rather, they regard the development of powerful and selective indirect credit instruments as almost exemplifying broadly liberal principles in the French context—insofar as they replace a heavy-handed state presence with one in which control is tempered by negotiations between industry and the several branches of the state and the financial sector, and in which control ultimately depends on the competence rather than on the brute power which rests in the state's possession. But control remains, nevertheless.

The Treasury

The overseer of selective credit policy is the Treasury, the temple within the temple of the Ministry of France.

The structure of the Treasury provides a bureaucratic road map of French financial and credit policy. There are three basic divisions: International, Money and Finance, and Investments and Participations. Roughly speaking, the Money and Finance division supervises the broad-gauge instruments of credit policy, including monetary targeting, the *encadrement*, stock and bond market policy, housing policy, and the management of the public debt. The Investments and Participations division directs the narrow-gauge intervention of the Finance Ministry in the affairs of particular firms.

The activities of the Investments and Participations Division (IP division) of the Treasury mirror as a whole the involvement of the French state in industry. Thus, they fall into two basic categories: management of crises in declining sectors, and the promotion of industrial exports and energy substitutes. The IP division in essence provides enterpreneurship for both activities, and a small but often critical portion of the funding. Crisis management, particularly in the steel industry, will be discussed a little later on. Industrial promotion—the schumpeterian aspect of the French state—is managed through a versatile and flexible maze of offices and committees whose effectiveness stems precisely from their rapid adaptability to specific problems. The maze can be broken into four components.

First, the IP division supervises a range of institutions dedicated to private-sector industrial finance. These include the specialized intermediaries in the Treasury's sphere: the CDC, the CN, the CNCA, and the BFCE. There are also 15 Regional Development Societies (SDR's), with a total capitalization of about 400 million francs, which are devoted to financing small and medium enterprises. And there are a set of local institutions, known as *Instituts de Participation*, which exist to provide a regionally based source of capital to the private sector. Eventually, there will also be 15 such institutes.

Second, the IP division acts as the General Secretariat of three interministerial committees concerned with capital formation and economic development. These are the Special Industrial Adaptation Fund (FSAI), the Interministerial Committee for the Development and Support of Employment (CIDSE), and the Committee for the Orientation and Development of Strategic Industry (CODIS).

FSAI was created in 1978 to promote investment in depressed regions, particularly those hardest hit by the crises and employment attrition in the steel and shipbuilding industries. It has been responsible for 3.0 billion francs in government assistance to industry in such regions, half in direct capital grants and half in a special type of "participative loans." Under this arrangement, the government's assistance counts as an additional equity, and the payback is divided between a part that is fixed and a part that is dependent on the performance of the firm.

CIDSE was created in 1979 to help provide additional capitalization for successful firms, particularly exporters, and so to fill a perceived gap in the structure of state assistance to industry. The state will match private equity placements with participative loans on a one-for-one basis. Officials estimate that 30 to 40 new loans are made each month, with the total over the first year or so of the program coming to 500 million francs. The participative loans go mainly to smaller enterprises, with an average loan size of about 1 million francs. Administration is handled by the Credit National, Credit Hotelier, and the SDR's, with review of the completed dossiers entrusted by CIDSE to the IP division of the Treasury.

CODIS also dates from 1979. Like CIDSE, it is an interministerial committee concerned with succeeding or potentially successful smaller exporting firms. Its specific purpose is the promotion of six "industries of the future," which have been identified (in the formation of the Eighth Plan, and elsewhere) as potential areas of significant export growth. CODIS operates without a budget. It serves as a coordinating, facilitating, and redtape-removing instrument, whose power stems from its affiliation with the Treasury. CODIS can mobilize all necessary administrative channels on behalf of the favored sectors, and it can spearhead the organization of financing for them as well.

Third, the IP division of the Treasury coordinates the investment activities of the behemoths of nationalized French industry in the noncompetitive sector: Electricite de France, the national railways, and the Paris regional transit network.

Fourth, and finally, the IP division oversees the foreign investment activities of French firms.

In the implementation of its policies, the IP division of the Treasury can count on close collaboration with the special intermediaries and on unimpeded access to several sources of finance. The latter include the FDES, which gets its funds from the checking accounts and the national savings bank operated by the post office, and the CDC, which (as noted above) receives most of the moneys deposited in the savings banks. These moneys provide the Treasury with a bargaining chip in its relations to industry, and their use helps catalyze the cooperation of the commercial banking sector in large financial undertakings.

To summarize: the evolution of financial and credit policy under the Barre government went far beyond the introduction of monetary targets and the institution of a monetarist anti-inflation program. In addition—or perhaps instead—there has been a substantial strenthening of selective mechanisms to affect the flow of credit, on two levels. First, the *encadrement* and associated instruments have been per-

fected to assure state control over the aggregate quantity and composition of capital formation and over the broad sectoral outlines of bank lending. Second, an array of specific selective credit institutions, under Treasury control, have been developed to facilitate intervention in microeconomic planning and decisionmaking in a virtually comprehensive range of contexts.

It remains to examine the uses to which the state's credit policy arsenal is being put.

The Medium-Term Industrial Policy

The French state has embarked on a broad program of industrial restructuring which aims to restore France's international competitive position over the medium term.[8] The post-oil-shock crisis provided the original impetus to this program. The advent of the Barre government brought supporters of strong action into power, and the crisis of the French Left, which began with the dissolution of the Socialist-Communist alliance in the autumn of 1977 and the crushing defeat of the Left in the legislative elections of March 1978 removed the primary political obstacle to realization. The second oil shock of 1979 added further force to the direction which policy already was taking.

Stephen Cohen has written elsewhere:

> "Restructuring" is perhaps best understood as something of a Sorelian mobilizing myth. Sorel once defined "The General Strike" as a myth—"a vague association of motivating images." Calling it a myth was not a debunking based on the probability of the event's occurrence, but rather an effort to define its essential quality and social role. Of course, were "The General Strike" or the "Restructuring" to occur it would have enormous consequences. But its basic value and, more important, its social role, are not to be found by gauging the probabilities of its complete realization.
>
> The French are trying to manage a "good recession," though they are quite aware that something bigger is called for and even sometimes believe that their restructuring strategy is, in fact, that bigger thing.

The French effort to restructure can be divided, for expositional convenience, into three broad categories of activity.

In heavy manufacturing, specifically the behemoths of nuclear power, telecommunications, and steel, the French policy is to invest, rationalize, and sustain, while exporting as much as possible. These are sectors in which the state is necessarily involved, whether as the lead entrepreneur (as in nuclear power and telecommunications), or as *de facto* trustee in bankruptcy (steel). These sectors absorb a major fraction of the traditional resources—budget expenditure, FDES funds, direct loans from the CN, and CDC—available for industrial policy in France. The entire telecommunications industry, for example (including data transmission and communications satellites as well as telephones), is run through the budget of the Post Office. Industrial policy here has produced a near-total modernization of French telephone communications, the laying of 10 million new lines in the past 7 years. The French have also entered the business of exporting telecommunications networks—whole—to developing countries.

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[8] See the reports of the Commissions on Industry, Research, Finance, and Development in the preparation of the Eighth Plan. Paris: Commissariat General du Plan, 1980.

In the competitive manufacturing sector, French policy has been to foster, to promote, and to seek out particular niches in which French industry can excel on world markets. Automobiles are the quantitative giant in this category. Others tend to be industries in niches where cost is secondary to technical excellence: armaments, aerospace, heavy engineering, including the overseas construction of complete commercial airports, city subway systems, ports and mines, computer peripherals, and the six "sectors of the future" mentioned earlier. Food processing and other agricultural exports form another group of this type. Here policy relies on the newer instruments of credit manipulation, and on the entrepreneurial abilities of officials in the Treasury, in the relevant ministries, and in the parapublic financial institutions.

In the declining manufacturing sector, which is labor intensive and vulnerable to international competition and to exchange rate changes, the policy is to manage an orderly contraction. Industries particularly hard hit include textiles, shoes, handbags, clothing, and watches. Here the policy relies on high interest rates and a high franc, the gradual reduction of subsidies, and on a willingness to tolerate unemployment. The intended effect is to apply a general pressure on wages throughout the economy and so to reinforce the strengthening position of the growing sectors. Naturally, it is this aspect of the restructuring which the French Left most vehemently opposes, since it means rising unemployment for unionized workers under conditions which offer little hope for early reabsorption. Some on the Left see a deliberate effort by the authorities to foster a "dual economy" on the Italian model, in which a small number of technologically advanced large companies with a few, well paid employees coexist with a large, delegitimized traditional sector on the periphery of the legal order and without access to state pensions or benefits. Whether or not this is anyone's actual intention, it is certainly true that only the unparalleled opportunity provided by the dissolution of the Union of the Left in 1978 made possible the application of austerity policy in a way which hits labor especially hard.

The three brief case studies which follow, on nuclear power, steel, and automobiles, highlight the immense scope and varied character of state involvement in industry in France.

Nuclear Power

In 1974, the Messmer government promulgated an ambitious nuclear energy program: by 1985, nuclear power would provide 25 percent of France's energy needs and 70 percent of the nation's electricity. In those days, other nations also had ambitious nuclear programs, but France's was more ambitious. U.S. targets were 15 percent and 30 percent; Japan's were 14 percent and 24 percent. The other programs have been abandoned. *De facto* moratoria on reactor ordering exist today in the United States, West Germany, the Netherlands, Italy, Sweden, Ireland, and probably in the United Kingdom, Belgium, Switzerland, Japan, and Canada. Nuclear programs have been indefinitely deferred or abandoned in Austria, Denmark, Norway, Australia, and New Zealand.

Since 1973, forecasts for the number of nuclear reactors to be in operation worldwide by the year 2000 have fallen by a factor of five.

Between 1974 and 1979, the nuclear industry in the United States recorded minus 27 orders; KWU, Germany's recent manufacturer, has not received a single order in 3 years. France, however, ordered 21 reactors from its national champion, Framatome.

While projections for both energy consumption and production have been revised downwards since the initial promulgation of the French program, France still expects to produce over half its electricity from nuclear reactors by 1985. France has probably become the leading nation in per capita nuclear power and will, well before 1985 at the current rate, become second in total capacity.

The French government not only places orders for reactors, it also gets construction going reasonably swiftly: Completion time in France is about 6 years compared to about twice that in the United States. France currently has about 30 reactors under construction, with 1980 orders for 6 more and 1981 orders scheduled for 5. Not even the Three Mile Island accident slowed the French: indeed, just 1 week after TMI, Prime Minister Barre announced that two additional reactors would be ordered.

This uniquely ambitious program of conventional light water reactors (LWR's) is but one part of the French nuclear program. France is seeking to develop a comprehensive nuclear industry that will encompass the entire nuclear cycle. At the back end of the cycle, the French have implemented their decision to vitrify liquid radioactive wastes at the controlled storage facility and also to proceed with reprocessing. The world's only operating major commercial reprocessing center is in France, at La Hague, the United Kingdom having shut down its roughly similar plant after a 1973 accident and the Japanese and the Americans having, for the moment at least, shut down theirs. Finally, the French are building a large scale breeder reactor, Superphenix, scheduled for completion around 1984.

The all-out nuclear program was adopted immediately after the 1973 oil embargo. The official goal of the program is to reduce national energy dependence: the oil crisis caught France importing 80 percent of its energy, most of it in the form of OPEC oil. The breeder program aims to free France from the possible irony of discovering that it had, at enormous cost, switched from dependence on foreign controlled oil to dependence on foreign controlled uranium. It will make the nation completely energy independent. It also makes the French approach to nuclear fission not, as in most countries, that of a transitional energy bridge between today's oil economy and something less problematic in the future.

Major energy decisions, however, raise the question as to whether that official and so-often repeated goal of reduced national energy independence has really been the overwhelming objective of French energy policy. Three sets of past decisions tend to indicate that it has not. These are, first, the previous decision to shift from coal to oil; second, the choice of nuclear technology; and, third, the failure to devote significant resources to nonnuclear substitutes for oil.

In 1959, the decision was taken to shift—at a massive scale and lightning pace—from coal to oil. It was a politically "tough decision," triggering protests in the mining regions and violent strikes by coal miners. The government fought the strikes and closed the mines,

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pretty much for good; for once maintenance ceases, it is a very difficult matter to bring those mines back into production.

This manifestation of political strength—in many ways comparable to that currently sustaining the nuclear program—was in the service of a simple economic strategy. French coal was expensive, imported oil cheap. Cheap energy would improve the competitive position of French industry, especially against the British and Germans who continued to subsidize their higher price coal production from the receipt of oil taxes.

To implement this plan, an astute taxation system was introduced. Gasoline, which does not compete with coal and is, essentially, a consumer good, was heavily taxed. But in contrast with the United Kingdom and Germany, heavy fuel oil was not taxed. Heavy fuel oil is used directly by heavy industry and by electric utilities which rapidly converted from coal. French fuel oil became the cheapest in the Common Market, and consumption shot up tenfold between the advent of the policy in 1959 and 1972.

The effects on coal were dramatic. In 1950, coal accounted for 77 percent of total French energy and petroleum only 20 percent. By 1973, a complete reversal had been accomplished: coal was down to 16 percent and oil up to 72 percent. By contrast, in 1973, coal still accounted for 30 percent of West German energy consumption. The difference between coal's 30 percent share in Germany and its 16 percent share in France is bigger than the entire French nuclear program's projection for beyond 1985. It was policy, not nature, that made France so much more dependent on imported oil than its major competitors.

Prior to 1969, France's limited nuclear energy program centered on a French designed and built gas graphite reactor. By 1969, France's military nuclear program had passed beyond the state of needing more graphite reactors and serious questions about the technical performance of those reactors as large-scale producers of electricity had arisen. France decided to shift to LWR's (light water reactors) as a licensee of Westinghouse. The Westinghouse LWR was not the only alternative to gas graphite. For example, the Canadian heavy water reactor, Candu, had some definite advantages for France. For fuel, Candu uses natural uranium—which is available in France. LWR's use enriched uranium. Enrichment plants are fabulously expensive, and at the time of this decision, and for many years after, the French had none. Furthermore, the Westinghouse LWR, compared with Candu, is a fuel-eater. But the Westinghouse LWR also had its attractions. It works with, as these things go, proven reliability. And, at the time, the LWR technology seemed destined to dominate the world market for exporting reactors that was just opening up. GE and Westinghouse LWR's had 90 percent of the international reactor market.

Another indicator of priorities is the fact that France has done comparatively little work in developing alternative energy resources; alternative, that is, to nuclear. The vast financial and scientific resources devoted to reducing energy dependence are almost exclusively concentrated on the nuclear program, and increasingly on the breeder and its complements. But even if the totally untried breeder technology works perfectly and according to schedule, the most optimistic projec-

tions—which come from the government—are for it to deliver energy independence around the year 2035.

There is, therefore, basis to think that national energy independence is not the overriding objective of the French nuclear program, and perhaps not even the principal objective.

Rather, the motivating ambition of the nuclear program may be to create a major economic growth and export sector at the very cutting edge of high technology that would also develop and demonstrate French power and prowess.

In most cases the two objectives, while not strictly congruent, are not particularly contradictory. But when conflicts do occur—as in the three important matters cited above—it is the quest for national economic growth and power, rather than the mobilizing notion of national energy independence, which apparently controls.

France cannot, for very long, continue to absorb all the reactors its industry is geared up to produce. The nuclear program was—it appears—intended to create a major export sector. But thus far, it has failed. The export market has simply vanished—not just for the French producers, but for the Germans and Americans as well. Many of the industry's critics—and even dispassionate industrial analysts—contend that it is on the brink of the biggest write-down in history. In the past 4 years, Framatome received export orders for power from only South Africa and Iran, and just recently—and tenuously—from China. When Iran's revolutionary government cancelled, there were no other buyers waiting in line for the reactors. The French government had to step in and buy them: those cancelled Iranian reactors were the two new purchases the government announced just 1 week after Three Mile Island.

Substantial overcapacity is built into the French program forcing France—in the face of a moribund export market in the developed and most developing nations—into ever more adventurous export efforts. Unless there is a dramatic rebirth of the export market outside the Soviet bloc—or a massive French penetration of the Eastern European market for nuclear power and processes, a conceivable and highly consequential event—a writeoff dwarfing Concorde and all the early white elephants combined could be on top of the agenda for France's next round of industrial restructuring.

There is little need to dwell on the financing of the nuclear program in France. EDF paper, which carries for practical purposes the implicit faith and credit of the Republic itself, can be sold anywhere in any quantity. When the supply of new bond issues on the French domestic market is light, EDF finances at home. Otherwise EDF bonds are issued in New York where, indeed, EDF has been among the largest borrowers in recent years.

Steel

If the talents of the French state as venture capitalist show up vividly in the nuclear power program, its equal talents—and shortcomings—as lender of last resort and rescue brigade are nowhere better illustrated than in the case of steel.

The steel crisis of 1978 erupted when the major companies were unable to service the debt they had accumulated over years of state-guided

efforts, not altogether successful, to modernize and restructure the industry. Debt service by 1978 had mounted to 14 percent of gross sales. In the crisis, the state acted to change the ownership structure and management of the firms, and to restructure their debt and equity positions, allocating losses to some and bailing out others. Broadly speaking, the effect was to leave heavy steel under a form of reversible partial nationalization, to place specialty steels on a firmer financial footing, and, in passing, to save several banking institutions from the possibility of a crisis-induced financial collapse.

The specific arrangements of the 1978 settlement represented a sharp break with past traditions of state involvement in the steel industry. As such, they illustrate the flexibility of the French state in the face of a long history of accumulating difficulties for which the state itself bears no small share of responsibility.

Steel was one of the six basic sectors of the first, or Monnet plan. The plan laid out a few key sectors—all basic industries—such as steel, cement, railroads, electricity, which were to receive virtually undivided attention in the first burst of postwar reconstruction. Implementation was simple, since there were virtually no sources of capital other than the state (whose funds, in the first years, came largely through the Marshall plan). The state's near monopoly of investment funds were administered by the Ministry of Finance in close collaboration, in those days, with the Commissariat General au Plan.[9] The Monnet plan began a habit of industry priorities—reconstruction and modernization—set and carried out under the close supervision of the state. Thus, ironically, it also helped subject industrial priorities to political as well as economic constraints.

A second phase of steel policy began with the creation of the European Coal and Steel Community, the predecessor of the Common Market, in 1957. This ended the insulation of the French steel industry from international competition, particularly German competition, and began the process from which the recent and continuing crises flow. The process can best be understood as an attempt to create companies of world scale, modern technology, competitive costs, and rational financial and investment management out of the no-longer-viable previous arrangements. Since the previous arrangements had entailed a strong cartel and strong labor unions protecting a weak industry in which production was separated from sales, sales from finance and France from world markets, none of this would prove easy. In the end, the conflict would lead to impasse and to a major crisis.

A good illustration of the inchoate structure of the French steel industry as late as the early 1970's can be found in the arrangements by which modernization was to be financed. Arrangements in both the bond market and the market for bank credit worked to divorce capital formation from any criteria of performance.

An industrywide syndicate was formed to market bonds to the small investor, and to distribute the revenues to the syndicate's constituent firms. The bonds were advertised on French television as a totally safe investment, and, given the blurred distinctions between public and

[9] Now, inexplicably, the Commissariat General *du* Plan.

private enterprise in France, there was no reason for small lenders to suppose them any different from a publicly backed EDF bond or even the Republic's own debt. The bonds were guaranteed by the signatures of all the participating firms—which is to say that from an incentive point of view they were guaranteed by no one.

Banks for their part were compelled towards ever-greater extensions of credit. Two factors were primarily responsible: first, the weight of the banks' own past exposure to the industry and the need to forestall a catastrophic shortfall of liquidity, and, second, the gentle, but totally effective encouragement by the state to finance modernization.

The proceeds from these financings were intended to support two activities: the modernization of heavy steel facilities in the Lorraine, and the construction of two massive greenfield establishments on the sea. The latter were at Dunkirk in the North, and, in the South, at the giant new industrial complex of Fos, outside Marseilles.

The underlying dilemma was this: modernization required new capacity and productivity required closing outmoded plants as new facilities came on line. But social peace required sustaining employment, especially in dense regional concentrations like the Lorraine, and the survival of certain firms required that certain particular plants, however outmoded, be kept in operation. And the steel industry, through its connections with the state, was committed to both modernization and social peace.

In concrete terms, this meant that plants were left open in the Lorraine, and that modernized facilities in the area were ill conceived and ill integrated into the full production process. Facilities that were modernized were modeled after the fully modernized coastal plants at Fos and Dunkirk. But they fitted badly into the integrated chain of steel production, and thus did not realize the cost advantages of greenfield establishments.

Moreover, employment was not reduced enough. In the 3 years before the 1978 crisis, the French laid off only 1,800 workers while the Germans were sacking 10,000—a contrast made more remarkable by the fact that employment levels in France for similar levels of production were 45,000 workers higher in France than in Germany. Outstanding debt for the industry grew rapidly, eventually reaching 111 percent of gross sales, compared with traditional figures in the United States and Germany of around 20 percent. A shakeout became inevitable.

A restructuring plan was conceived in 1977, but not implemented until 1978. Two factors made implementation possible. First, the world steel market went into a tailspin, provoking a financial crisis. The steel industry advised the government that emergency measures were the only alternative to bankruptcy on a massive scale. Second, the legislative elections of March 1978 had neutralized the Left. The iron was hot for long-standing advocates of forced-draft rationalization.

The Treasury organized the rescue and the restructuring. The scale, speed, thoroughness, and emergency procedures invoked in the exercise provide a remarkable contrast to the course of such operations in the United States.

The first component of the restructuring was a cut in employment from 150,000 workers to 105,000, effected over 2 years. This produced a violent confrontation between the steelworkers and the police. The eventual upshot was a severence settlement of about $13,000 per worker from the state.

With respect to the structure of the industry, the state decided to effect a fundamental reorganization, removing permanently those responsible for past bad management. Administratively, outright nationalization would have been the simplest way to do this, but there were three reasons to avoid it. First, such a step would have been inconsistent with the liberal image of the (still relatively new) Barre government, and in particular with the policy of price decontrol. Second, the state calculated that outright nationalization would make achievement of massive layoffs extremely difficult, and such layoffs, amounting to one-third of the work force that would have to be dismissed quickly and in dense concentrations, were essential to any successful restructuring effort. Finally, the state decided that long-term efficiency and international competitiveness would be better served by a management which was truly independent of the state.

Given the decision to preserve the industry, the decision to restructure it, and the decision not to nationalize, the remaining option was straightforward. Private capital markets were, of course. closed to French steel. Therefore, the state had to put together a financial package, while, at the same time, it directed the reorganization of the industry's structure and the replacement of its management.

The financial package had to deal with bondholders, with the banks and with nonresident creditors.

First, the French government guaranteed payment of steel paper held by foreign banks. This step took international creditors out of the action and guaranteed that whatever further arrangements which might be worked out within the small community of French banks, industry and officialdom would stick.

Second, a special fund was established, with state resources, to guarantee payment of the small-denomination bonds which the industry syndicate had issued in the early seventies. The intent and effect of this action was to protect the small investor, the small and fragile French bond market itself, and to avoid any adverse consequences for the marketability of small denomination bonds issued by national enterprises (such as EDF) and by the government itself.

Third, the government decided to protect the banks, especially the Bank de Paris et de Pays Bas—perhaps the most exposed—from potentially fatal losses, while nevertheless insuring that the banking sector did pay a substantial share of the cost of the rescue. It converted a portion of steel industry's debt into shares of the reconstructed industry, assembled the major banking and other financing institutions, including such public entities as the CDC (which does not ordinarily participate in direct industrial lending), and gently suggested that each would have to pick up a piece of the financing package. This was not quite direct coercion. Any of the institutions could have refused to cooperate. But, given the "permanent package deal" which characterizes the relations of banks to the Treasury in France (as the president of one such institution described it), recalcitrance in one deal

might lead to difficulties in others. Therefore recalcitrance is rare. The banking system and the CDC accepted the new shares, and thus the joint public-private rescue of the steel industry fell into place.

The restructuring which accompanied the financial rescue was massive but straightforward. Various smaller firms were combined into two giant holdings. The state named its own top management to these two new independent corporations, and gave them explicit instructions to produce a viable restructuring plan of the physical plant and equipment.

There are several estimates of the total cost of the steel rescue package. Official sources put the cost at $2 billion, but Cohen, in estimates based on the business press and on the (not unreasonable) attribution of zero worth to the new steel industry equity, puts the true figure at three times as much.

The National Assembly was never directly consulted. Everything was arranged quickly and quietly within the Treasury, the Ministry of Finance, and the closed communities of the financial and industrial system. Whether the rescue operation will work remains to be seen. But the fact that it could be done at all illustrates the extraordinary economic power of the French state, operating through its influence over the financial system.

Automobiles

The automobile industry provides a sharply contrasting case. The industry is, by and large, a success. The companies, now reduced to Renault and Peugeot, are cash rich (Renault in part because, as a nationalized firm, it has no shareholders), and their managements are fiercely resistant to government control. Without financial leverage, the state has little influence over the conduct of the companies' operations, and only intervenes when difficulties arise. These occur sporadically in the internal affairs of the companies, and somewhat more regularly in the domain of international competition.

Renault has managed to stay entirely free of entanglement with state-managed finance, at least since the late 1960's. Indeed, it is very jealous of its autonomy, and for that reason management seeks to keep debt levels limited. The massive cash requirements for the purchase of part of American Motors Corp., for example, were met without state assistance. Renault clams to have cut back on other critical projects in order to do it this way.

The state did play a role in the 1974 merger of Citroen and Peugeot. Citroen had been looking for an international partner, but the government intervened to keep the marriage within the French family. The dowry, in the form of a loan to Peugeot of 1 billion francs, was arranged by the Treasury and drawn against the FDES. It carried a substantial interest subsidy. Nevertheless, Peugeot repaid the loan within a year, and so reestablished its independence from the state. For similar reasons, Peugeot's purchase of Chrysler Europe (now Talbot) was financed from cash reserves. That investment has left the firm in difficulty, because swallowing the new company has been a difficult task and a cash drain.

With the auto companies fundamentally sound, the central attention of the government is on international trade policy components.

Four out of 10 French cars are exported to Europe and another one at least goes to other export markets. A deterioration in market position in France or in Europe could reverse the position of the two companies and draw the government in. There can be little doubt that the state would step in if needed: government officials estimate the auto industry to represent about 2 million jobs in France.

For now, the problem is to pressure the Japanese to restrain their exports. In the French market, Japanese exports now represent 3 percent of total sales, and President Giscard d'Estaing has announced that this will not be allowed to increase. In the EEC, whose market is equally important to the French, however, Japanese imports are rising rapidly: up to 8 percent this year from 6 percent in 1979. The Japanese have come first into markets without domestic producers, then into markets with weak producers such as Britain, and next into markets with strong producers but a tradition of international trade liberalism (Germany). The French see this as a strategy, which accounts for the hitherto low level of Japanese penetration of the French market, and they see themselves as next on the list. However, the problem must be addressed in the Councils of Europe, and this is what the government is attempting to do.

Summary

The French financial system channels virtually all credit through a small number of very large institutions: the Caisse de Depots, the other specialized intermediaries, the National Agricultural Bank, the five big commercial banks, the two big business banks, and the government itself. The government can and does influence most aspects of this very centralized system. It sets lending priorities for banks, limits their total credit extension, and controls their cost of funds. It can regulate access to the (relatively small) domestic bond market. It is a major purchaser on and promoter of the stock market, which is also relatively small. And the government can control overseas borrowings of French corporations, with minor exceptions covering their strictly external operations.

The financial system is thus the key enabling condition for the implementation of French industrial policy. The existence of a small number of institutions makes it possible for decisions to be reached quickly in negotiations among small groups of people and for actions to be taken quickly. The climate of permanent negotiation among all the major parties ensures that cooperation rather than conflict generally governs conduct. The reserve powers of the state provide additional assurance that Treasury decision will be put into effect.

Changes are occurring within the French finance-dominated system of industrial policy. These have included significant dismantling of the structure of generalized controls and subsidies which had existed since the Second World War, efforts to stimulate the bond and stock markets, and changes in the technical characteristics of credit control. The interpretation of these changes is, however, controversial. A popular view, encouraged by high officialdom and trumpeted in the financial press, has hailed the Plan Barre as a courageous effort to turn France away from state capitalism and toward laissez-faire economy. Another group of observers has dismissed the whole exercise as empty rhetoric.

Neither extreme view contributes much to understanding. The French are adapting to conditions imposed by their increasing exposure to world markets, and this process of adaptation is a liberalization of sorts. Formerly, French policy would have tried to wall out international competition altogether; now the emphasis is on winning rather than shunning the competitive struggle. But adaptation has not been pursued by reducing the role of the state. On the contrary, the French strategy has been to transform and modernize the role of the state in the economy, in an effort to make that role compatible with success of French producers on world markets.

The modernization of the state role in the economy is a dual process involving a shifting away from certain traditional activities, and a shifting into others. Shifting out is difficult politically, and the major steps—the end of price control, the contraction and restructuring of textiles, steel, and traditional agriculture, and the implementation of a credit crunch against housing and construction—have all been taken under favorable political conditions. Shifting in is conceptually difficult, and in this area the state has developed and continues to develop a diverse and flexible mechanism for making decisions and taking action. The decisions, generally, can be made in small group negotiations involving only the Treasury, a few outside financial institutions, and the industrial group immediately concerned. Expertise is provided by the permanent and continuing specialization of such parapublic institutions as the CNCA, the Credit National, and other specialized intermediaries, the BFCE, and so on. Once a decision is taken, finance follows easily. The system does not guarantee that every decision will prove a commercial success. But it does make possible a flexible, selective, highly articulated industrial policy oriented toward the future development of French export markets—and this is a capability which other advanced European countries and the United States lack.

III. MONETARISM AND SUPPLY-SIDE ECONOMICS IN THE UNITED KINGDOM

Under the leadership of Mrs. Thatcher, the United Kingdom has adopted a macroeconomic policy which gives "overriding priority to reducing inflation and to strengthening the supply side of the economy." Short-run stabilization policies have been renounced; instead, the government seeks to create conditions considered necessary for the sustainable growth of output and employment in the medium term. The central feature of the government's economic program is its monetary policy, which is based on "monetarist" doctrines and calls for a progressive deceleration in the growth rate of the money supply. Other Thatcher policies aim to improve the supply side of the economy, mainly by reducing the role of the public sector.

The government's monetary policy involves announcing and executing a monetary disinflation, regardless of the transitional consequences. The central component of this policy is a progressive deceleration over the medium term of the growth rate of the money supply. The government believes that this policy can best be formulated in terms of targets for one of the monetary aggregates. For primarily institutional reasons, sterling M3, consisting of notes and coin in circulation plus all sterling bank deposits held by the private and public sectors, has been chosen as the appropriate aggregate to target. So as not to rely excessively on interest rates, the government also announced its intention to decrease the Public Sector Borrowing Requirement (PSBR) as a percent of GDP over the medium term.

The PSBR is the difference between public-sector receipts from and payments to the private sector and overseas. For a given money supply target, there is a positive relationship between the PSBR and interest rates; therefore, a lower PSBR implies lower interest rates for a given growth of the money supply.

The specifics of these policies were most clearly presented in the government's "Medium-Term Financial Strategy" (MTFS).[1] The MTFS presents a target range for the growth rate of sterling M3 which progressively diminishes from 7 to 10 percent for 1980–81 to 4 to 8 percent by 1983–84. Projections for the progressive reduction of the PSBR through 1983–84 both in constant prices and as a percent of GDP are also included.

Mrs. Thatcher's policies to improve the supply side of the economy attempt to decrease the interference of the government in the economy and to promote the free operation of markets. Income taxes were reduced, with the stated purpose of restoring incentives to work. Mrs. Thatcher has declared that public expenditure as a percent of GDP should decline over the medium term. Public-sector holdings in indus-

[1] The MTFS was included in the Financial Statement and Budget Report 1980–81, presented by the Chancellor of the Exchequer to the House of Commons on Mar. 26, 1980.

try have been sold and financial assistance both to industry and regional development programs have been reduced. Foreign exchange controls have been lifted and quantitative credit controls have been removed. Finally, the government came to office intending to limit its intervention in the price and income determination process, stressing that the social partners in free collective bargaining, and not the government, would be responsible for excessive pay settlements. Attempts have also been made to limit the power of the trade unions through trade union law reform.

After 18 months in office, the government has not succeeded in carrying out the major elements of its economic program. In particular, both the growth rate of the money supply and the PSBR have exceeded their targets. Wage settlements and inflation, although moderating, have remained high. Sterling M3 has grown at an annual rate of over 20 percent, compared to a target range of 7 to 11 percent. Inflation is now 15½ percent on an annual basis, down from the previous year, but almost twice the rate which existed when the Conservatives came to power in May 1979. The increase in average earnings this pay round is expected to be half of last year's pay round. However, public-sector wages have moderated much more slowly than those in the private sector. In October and November 1980, additional policies were announced to regain control of the PSBR and public-sector wages in particular. These policies effected partial reversals of earlier decisions, particularly regarding taxation and pay policy, but reaffirmed the central role of the government's monetary policy in the overall economic policy program.

According to one group of critics, the government's lack of success in carrying out its economic policy program—in particular, in hitting its money supply and PSBR targets—resulted from contradictory commitments entered into during the election of 1979. The Conservative Manifesto called for reducing the inflation rate, decreasing government spending and borrowing, cutting personal taxation, and increasing defense and "law and order" expenditure. Initially, it was not clear that the government could carry out all of its objectives simultaneously. After the unexpected oil price increase and the high public-sector wage settlements, whatever possibility existed originally became very remote.

Others argue that the problem has not been one of incompatible policies, but of ineffective instruments. In particular, it is argued that the instruments that the government uses to control the money stock are not sufficiently effective. Currently, the government relies on manipulating interest rates to control the money supply. Proposals to change to a system of monetary base control have been offered as an alternative. It is suggested that a switch to monetary base control, which would rely on the relationship between reserve assets and banks' liabilities would increase the government's control over the money supply in the short run and thereby contribute to the more effective long-term control.

The above arguments center on whether there exists a better alternative to the form of "monetarism" adopted by Mrs. Thatcher. A third set of critics argues that there are alternatives to monetarism that would be more effective at attaining what should be the objec-

tives of the government, both in the short run and over the longer term. A wide spectrum of alternative strategies exists. At one extreme, some argue that restrictive aggregate demand management is required, but that the mix of monetary policy and fiscal policy currently incorporated in the government's policies is inappropriate. To correct this, it is suggested that nominal GDP instead of sterling M3 should be used as a target. In addition, incomes policies are supported as a means of easing the real costs of transition to lower inflation. At the other extreme, reflation rather than deflation is proposed on the grounds that deflation is both ineffective and inappropriate as a means of slowing inflation. Proposals favoring reflation are usually combined with an incomes policy and some form of industrial policy. Among reflationists, there exists a further dichotomy between those in favor of devaluation and those in favor of import controls.

The paper is organized in the following manner. First, the historical conditions under which Mrs. Thatcher came to office will be discussed. She was faced with the same problems of low productivity, low growth, inflation, and unemployment that have plagued governments before her. More immediately, the policies of the previous Labor government of aggregate demand management combined with an incomes policy had broken down. Next, the monetary policies of the Thatcher government will be presented along with the theoretical justifications for these policies. Then, the other elements of the government's larger economic policy program will be discussed. Mrs. Thatcher's policies, although not a complete break with the past in terms of either monetary restrictiveness and the use of targetry, involved a major change in approach in that short-run stabilization policies were renounced in favor of longer term economic objectives. The presentation of Mrs. Thatcher's policies will be followed by a discussion of the government's progress after 18 months in office. Finally, criticisms of the Thatcher policies and alternative policy proposals will be presented.

The "British Disease" in Brief

Mrs. Thatcher's approach to the economy, which marks a major philosophical departure from that of previous governments, can only be understood in light of the problems the United Kingdom economy has repeatedly suffered and the inability of previous governments to deal with these problems. Slow growth, low productivity, inflation, unemployment, and balance-of-payments crises have plagued Britain's economy on and off for over two decades. Successive governments have had little success with these problems in anything but the short run. Both Mrs. Thatcher's electoral victory and the policies she subsequently adopted can be explained partly by the inability of the previous governments to manage the economy successfully, and, in particular, to restrain inflation.

Turning to the longer term problems, the United Kingdom's growth performance is generally considered to have been inadequate. Compared to most other developed countries, the growth rates of Gross Domestic Product (GDP) and GDP per employee have been low in Britain. The average growth rate of GDP per annum for the United Kingdom was 2.6 percent between 1951 and 1969, compared to an

average of 4.5 percent for West Germany, France, Sweden, and the United States. More recently, the United Kingdom has continued to grow more slowly than these other developed countries. Between 1973 and 1978, the average annual growth rate of GDP in the United Kingdom was 1.1 percent, compared to an average 2.2 percent for West Germany, France, the United States, and Sweden.[2]

A low level and slow rate of growth of productivity have also been problems in Britain for over two decades. The growth rate of productivity in the United Kingdom averaged 2.6 percent on an annual basis between 1960 and 1970, and 1.8 percent between 1970 and 1977. The comparable rates for the European community countries were 4.4 percent for 1960 to 1970, and 3.3 percent for 1970 to 1977.[3]

Shorter term problems, which have both resulted from and contributed to the above problems, have included inflation, unemployment, and balance-of-payments crises. Up until 1967, the United Kingdom's inflation rate was low, averaging 3.0 percent between 1960 and 1967. This was in line with the rates experienced in other industrial countries. Between 1967 and 1971, the inflation rate increased rapidly in the United Kingdom, rising from 2.7 percent to 9.4 percent. After 1972, inflation accelerated more rapidly, attaining a high of 24.2 percent in 1975. The Labor Government succeeded in reducing inflation to 8.3 percent in 1978. It increased again in 1979 to 13.4 percent, and reached 22 percent on a year-on-year basis in May 1980. Up until 1973, inflation in the United Kingdom was comparable to that experienced by other countries. Since 1974, however, prices have increased more rapidly in Britain than in the other major OECD countries.

Balance-of-payments problems have also troubled the United Kingdom since the 1960's. In the 1950's, the current account was generally in surplus. In the 1960's, recurrent current account deficits combined with a fixed exchange rate led to capital account crises and "stop-and-go" aggregate demand management policies. Rapid growth leading to balance-of-payments deficits and speculation against sterling would be followed by restrictive aggregate demand policies and increasing unemployment. Finally, in 1967, sterling was devalued by approximately 14 percent.

Following a "J" curve effect, the current account moved into surplus in 1969 and stayed there until 1971. Between 1971 and 1974, however, the current account deteriorated rapidly. In 1974, the current account deficit was £3.8 billion, or almost 5 percent of national income. Sterling had been floated in June 1972, but the current account deficits persisted despite a 20 percent decrease in the value of sterling by the end of 1974.

Finally, falling reserves and a sharply depreciating exchange rate led the authorities to adopt restrictive monetary and fiscal policies in 1976 despite high unemployment. The policies adopted led successfully to a current account surplus in 1977 and 1978, and also eventually to an appreciating currency. In 1979, the current account was in deficit but returned to surplus in 1980 mainly as a result of the recession.

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[2] GNP data for West Germany and the United States.

[3] Dornbusch, Rudiger, and Fisher, Stanley. "Sterling and the External Balance," Britain's Economic Performance. Richard E. Caves and Lawrence B. Krause, eds. The Brookings Institution, Washington, D.C., 1980, p. 49.

Unemployment has more recently become a problem in the United Kingdom. Between 1964 and 1970, unemployment averaged 2.0 percent in Britain. Although international comparisons are difficult because of reporting differences, the rate was comparable or below that experienced by the other industrial countries. In the 1970's, unemployment began to assert itself as a policy problem. Unemployment increased from 2.6 percent in 1970, to 3.9 percent in 1975, to 5.4 percent in 1979. In mid-November 1980, adult unemployment reached 2.03 million or 8.4 percent of the work force.

Economic Policy

Policies to deal with these problems have changed from government to government. Until Mrs. Thatcher, however, they generally consisted of aggregate demand management policies aimed at short-run stabilization of output, employment, and the balance of payments, frequently combined with an incomes policy to control inflation. The concerns of monetary policy have changed substantially over the last two decades, with the emphasis changing from the structure of interest rates to control over the monetary aggregates. Various selective credit controls have also been used. In addition to the management of aggregate demand, various attempts have been made to institute policies aimed at improving the rate of economic growth by promoting investment and increased productivity. These policies have ranged from investment tax incentives to medium-term planning arrangements.

Aggregate Demand Management: Stop and Go

From the 1950's to the mid-1960's, alternating policies of contraction and expansion of aggregate demand were adopted to deal respectively with balance-of-payments crises and increasing unemployment. Periods of rapid growth and declining unemployment brought on by expansionary policy would lead to increased imports and current account deficits, given the fixed sterling exchange rate. Contractionary policies would then be adopted, leading to declining deficits and increasing unemployment. Eventually, expansionary policies would be adopted again, starting the "stop/go" cycle over.

In 1964, the government attempted to deal with the balance-of-payments problem without deflating. Instead, it imposed a surcharge on many imports and restricted capital outflows. However, by the middle of 1966, it was obvious that deflation was also necessary and severely restrictive policies were adopted. By 1967, it became apparent that even high unemployment was not preventing the balance of payments from deteriorating and sterling, which had been fixed at $2.80 since 1949, was devalued in November to $2.40. The devaluation was intended to alleviate the balance-of-payments problem by decreasing imports and stimulating exports.

Because the expected improvement in the balance of payments would add to demand, the 1967 devaluation was supported by fiscal deflation in 1968 and restrictive monetary and fiscal policy in 1969. These policies finally resulted in current account surpluses in 1970 and 1971. The devaluation of sterling had not, however, removed the

conflict between balance-of-payments equilibrium on one hand and strong growth plus low levels of unemployment on the other. Throughout this period, unemployment increased, particularly in 1971, as a result of the policies pursued to ensure a current account surplus.

In response, in 1971 and 1972, the unemployment objective again became dominant. Unemployment had increased severely in 1971. In addition, the slowdown appeared to be having insignificant effects on inflation. Mildly reflationary fiscal measures in 1971 were followed by a massively reflationary budget in 1972. The public sector moved from a surplus of £0.7 billion in 1970, to deficits of £1.6 billion in 1972, and £2.7 billion in 1973. Monetary policy was also relaxed, partly in response to the new Competition and Credit Control policies of 1971, which removed quantitative restrictions on bank lending. Bank lending to the private sector increased from £1.9 billion in 1971 to £6.4 billion in 1972, while sterling M3 increased by more than 25 percent in both 1972 and 1973.

The combined effect of these monetary and fiscal policies was a rapid increase in demand, particularly of private consumption. Output increased sharply in 1972 and 1973, and unemployment began to decline. Once again, the balance of payments deteriorated as imports rose rapidly. The government announced, however, that the expansion would not be abandoned to defend sterling. Instead, the exchange rate was floated in June 1972.

Starting in 1973, the United Kingdom economy weakened in terms of output and productivity growth, unemployment, and inflation. These problems were aggravated by the commodity price boom of 1973 and the quadrupling of oil prices in December 1973. Between 1971 and 1974, there had also been a very sharp increase in the average savings rate from about 8½ percent to 14½ percent. This and the oil price increase imposed deflationary pressures on the economy.

When Wilson's Labor government came to power in 1974, these deflationary effects were partly offset by expansionary fiscal policy. In addition, real wages increased in 1974, further increasing demand. As a result, the United Kingdom was expanding relative to other countries, which were not pursuing policies to offset the deflationary effects of the oil price increases. Increased balance-of-payments problems resulted. Up to 1975, however, the country's exchange rate remained relatively stable, mainly because large amounts of OPEC's increased earnings flowed into London's financial markets.

By mid-1975, it became increasingly obvious that the policy of offsetting the deflationary effects of the oil price increase could not continue. Inflation and balance-of-payments problems worsened. The balance of payments on current account had moved from a deficit of approximately £1 billion in 1973, to £3.6 billion in 1974. The annual percentage change in retail prices increased from 9.2 percent in 1973. to 24.2 percent in 1975. In 1975, strongly deflationary policies were adopted, and the economy moved into recession. In response, real incomes, consumption, and private investment all declined.

Despite the recession, repeated exchange rate crises arose in 1976. The exchange rate depreciated rapidly in April 1976 and again in October 1976. Balance-of-payments problems and lack of foreign con-

fidence in sterling became the immediate priorities of the government. Fears arose that the falling exchange rate would interact with money wage rises and domestic inflation and result in a "vicious" cycle of a depreciating exchange rate and accelerating inflation. A series of restrictive measures were introduced to ease the pressure on the exchange rate. Quantitative credit controls were imposed and the Minimum Lending Rate (MLR), which is the rate at which the Bank of England lends to the banking sector, was increased from 9 percent in April to 15 percent in October.

In December 1976, the government under Prime Minister Callaghan adopted a further set of measures, which had been worked out with the IMF in exchange for a $3.9 billion loan, to deal with the exchange rate crises. The major causes of sterling's weakness were the high rate of inflation and a large public-sector deficit. Although monetary and fiscal policy had both been relatively restrictive in 1976, the IMF conditions included more cuts in public expenditure and targets for Domestic Credit Expansion (DCE). ("DCE" is a measure of the change in the domestic money stock including an adjustment for changes in the money supply caused by external surpluses or deficits.) The Letter of Intent to the IMF included planned reductions in the PSBR. A target of £8.7 billion was set for 1977–78 and of £8.6 billion for 1978–79. Expenditure cuts of £1.5 billion in 1977–78 and £2 billion in 1978–79 were to be made to help achieve these targets. DCE was to decrease from £9 billion in 1976–77, to £7.7 billion in 1977–78, to £6 billion in 1978–79.

The results of these policies included a sharp recovery in the exchange rate and later a decrease in interest rates. The successful negotiations with the IMF increased confidence in the financial markets and the government was able to sell large quantities of debt to the nonbank public. As a result, in the second half of 1977–78, DCE was negative and the growth rate of sterling M3 was below the stated target range.

In the second half of 1977, fiscal policies were relaxed. Inflation had slowed and the current account had moved into surplus. DCE, the PSBR, and monetary growth were all less than originally planned. At the same time, the unemployment rate was considered high.

In 1978, the main objective of economic policy was to increase demand to promote recovery while holding down inflation. The 1978–79 budget called for a decrease in personal income taxes and an increase in public expenditure. In an attempt to keep the PSBR below its target of £8.5 billion, the government's National Insurance Surcharge on employers was raised by 1.5 to 2.5 percent. Overall, the fiscal stance in 1978–79 was slightly expansionary.

Monetary Policies

The role played by monetary policy in aggregate demand management has changed dramatically over the last two decades. Until 1971, monetary policy did not play a major role in the control of aggregate demand. Neither the Bank of England nor the Treasury were particularly interested in controlling the money supply. Instead, the interest rate structure was the authorities' major concern. The "Report

of the Treasury Committee on the Working of the Monetary System" of 1959, known as the Radcliffe Report,[4] expressed the view that:

> The authorities . . . have to regard the structure of interest rates rather than the supply of money as the centerpiece of the monetary mechanism. This does not mean that the supply of money is unimportant, but that its control is incidental to interest rate policy.

As late as 1969, the Bank of England reiterated this view.[5]

The concentration on interest rates was partly motivated by the government's concern with financing the government debt. There was a conflict between managing the debt and undertaking an active monetary policy to control the level of aggregate demand. Controlling the money supply, particularly preventing the monetization of the government debt by the banking system, required increased interest rates. The authorities were reluctant, however, to raise interest rates. As managers of the government debt, their concerns included minimizing the interest burden of financing the government debt, preserving conditions for the government to finance its continuing borrowing requirement, and ensuring that existing debt continued to be held. The authorities believed that financing the government debt required stable interest rates and, therefore, stable bond prices. It was assumed that rising interest rates would create expectations of falling bond prices and make it difficult for the authorities to sell bonds, as investors sought to avoid capital losses. The authorities, therefore, followed a monetary policy of gradual adjustments only to the structure of interest rates.

The authorities' concern about the structure of interest rates meant that aggregate demand management was dominated by fiscal policy. They realized, however, that control of domestic credit conditions could contribute to the management of demand. Given the government's interest rate policy, this led the authorities to administrative controls over the volume of lending by banks and other financial institutions and to controls over the terms of hire purchase credit. Between the 1950's and 1971, when credit reforms were instituted, there was a gradual increase in direct administrative intervention in financial markets until it became the major technique of monetary control.

Starting in 1951, when wartime controls were ended, monetary and credit policies became more important. In 1951, the clearing banks were requested to observe minimum ratios between both cash and liquid assets and deposit liabilities. Before 1951, only a cash ratio had existed. The new liquidity ratio included both cash and short-term assets, including Treasury bills, commercial bills, and money lent short term to the London discount market.

The discount market consists of 11 discount houses and certain firms carrying on similar business. The discount houses borrow their funds primarily "at call" from banks, chiefly the London clearing banks, and other financial institutions. They invest the borrowed money primarily in government stocks and Treasury bills, local authority securities, and certificates of deposit. The Bank of England acts as lender-of-last-resort only to the discount market. The Bank will always lend

[4] HMSO. Cmnd 827, August 1959.
[5] Bank of England Quarterly Bulletin, vol. 9, No. 4, December 1969.

whatever quantity is requested by the discount houses, but reserves the right to dictate the terms on which it will lend. This guarantees that the banks will always be able to "call" the money placed with the discount houses. The discount houses also always cover the weekly tender for Treasury bills. Until 1971, this was done at a single price, agreed upon by the discount houses in advance.

The policy instruments used by the Bank of England included the Bank Rate (the precursor of the Minimum Lending Rate) and open market operations. The Bank Rate was the rate at which the Bank of England would lend to the banking sector through the discount houses. To increase interest rates, the Bank of England would increase the Bank Rate and "make it effective" by selling government debt in the open market. Open market sales would decrease banks' balances. To adjust, banks would call in their loans to the discount houses. If open market sales were large enough to create an overall shortage of cash in the money markets, the discount houses would be forced to borrow from the Bank of England at the increased Bank Rate. They would raise their lending rates in response, setting off a general increase in interest rates.

Between 1951 and 1971, the banks would change borrowing and lending rates in response to a change in the Bank Rate, rather than waiting for the Bank to "make it effective." The new requirements of 1951 meant that the authorities could deprive the banks of cash by selling Treasury bills, or deprive them of "liquid assets" by selling bonds, which were outside the definition of "liquid assets."

The government's management of the gilt-edged market was determined by the desire to maximize investors' desire to hold British government debt. This followed from the government's need both to finance its current borrowing requirement and to replace maturing debt.[6] Until the 1970's, the only quantitative goal of monetary policy was to limit bank lending to the domestic private sector. Bank lending to the public sector, therefore, did not directly affect the government's monetary policy objectives.

By the late 1950's, the authorities began to realize that these instruments were not adequate to control the credit available in the economy. The government's policy towards interest rates was largely responsible for this. If banks were being constrained by the liquid assets ratio, they would sell bonds rather than decrease advances. The authorities would purchase these bonds, as a way of maintaining "orderly markets." In particular, the authorities would buy back bonds nearing maturity. This both smoothed the markets and encouraged bond holding by making short bonds very liquid. It also, however, decreased the effectiveness of open market operations.

To increase the authorities' control over the credit available in the economy, the "Special Deposits" scheme was introduced in 1960. Under this scheme, the authorities could require the clearing and Scottish banks to place special deposits, set in terms of some percentage of eligible liabilities, with the Bank of England. These deposits would bear interest,[7] but they would not count toward the required

[6] Toward this end, the Bank would deal in gilt-edged stocks of all maturities at prices close to those in the market as a way of increasing the desirability of gilts.

[7] The interest rate paid on special deposits would be one-sixteenth percent nearest to the average Treasury bill rate at the weekly tender of the previous week. Bank of England Quarterly Bulletin, December 1960.

"liquid assets" ratio. A call for special deposits was meant to force the banks to decrease loans to the private sector, without having to rely on increased interest rates. This attempt to minimize the effects on interest rates failed almost from the start. Rather than decreasing loans, the banks would meet calls for special deposits by selling maturing bonds.

As a result, the Bank of England increasingly resorted to direct controls or "moral suasion." In the mid-1950's, controls included "requests" by the Bank of England on both the quantity and direction of bank credit. In the 1960's "advice" was extended in addition to hire-purchase companies, in a way that supplemented the Department of Trade and Industry's control of initial down payment and repayment period. Explicit quantitative loan ceilings were used first in 1961. They were then included in all the budgets between 1965 and 1971. In 1961, the Bank of England's requests to limit advances applied not only to deposit banks but to other banks and a variety of other financial institutions. In 1965, these limits were extended to the finance houses. By the late 1960's, the Bank of England was sending copies of its loan ceiling requests to other institutions, such as pension funds and building societies, asking them to take into consideration the Bank's policies, although these institutions were not subject to the ceilings.

The quantitative controls were directed at controlling credit while minimizing the effects of monetary control on interest rates and debt management. The side effects, however, were a decrease in competition and efficiency in the banking sector and disintermediation to uncontrolled financial institutions. During the 1960's, other banks and financial institutions not subject to quantitative controls increased their lending at the expense of the clearing banks. In 1967, the Bank of England attempted to remedy this by establishing a cash deposits scheme for nonclearing banks, comparable to the Special Deposits scheme. This scheme was never used and expired in September, 1971, with the institution of Competition and Credit Control. The pattern of development over these years was toward increasing controls due to bank evasion of existing regulations.

Other Bank of England instruments included foreign exchange controls and operation of the Exchange Equalization Account. Both could be used to influence domestic credit conditions. Hire purchase controls, under the authority of the Department of Trade and industry, were also used to control credit.

Toward the end of the 1960's, it became increasingly obvious that this approach to credit control was not working. The economy deteriorated throughout the 1960's, and repeated balance-of-payments crises led eventually to the devaluation of sterling in 1967. In 1968 and 1969, the Bank of England and the Treasury began to consider changing their monetary and credit policies. In May 1969, external pressures furthered this process. As a condition for IMF aid, the Treasury was required to limit domestic credit expansion. This implied a shift away from control of interest rates and towards the monetary aggregates. By the spring of 1971, existing arrangements were announced to be inadequate and suggestions for change were invited from interested parties.

In May 1971, the authorities enumerated the major limitations of the existing system: (1) restrictive policies through controls on bank lending were proving ineffective because of disintermediation; (2) quantitative controls limited competition between the banks and, therefore, decreased the efficiency of the banking sector; and (3) the burdens of control were not shared equally among the financial institutions, with the larger banks acting as the major channel of restraint.

Toward the end of 1971, reforms were instituted under "Competition and Credit Control." The reforms were designed to develop "new techniques of monetary policy, with the objective of combining an effective measure of control over credit conditions with a greater scope for competition and innovation." The reforms reflected a desire to rely more on prices to control domestic credit than on quantity controls, and to place greater emphasis on the control of the money supply as a policy objective.

The reforms included the following:

(1) All ceilings on bank lending were removed.

(2) The Reserve Asset Requirement (RAR) was instituted. This requires the banks to hold on a daily basis a minimum reserve ratio of 12 percent of "eligible liabilities." Eligible reserve assets include the following:

> (*a*) Balances with the Bank of England (excluding Special Deposits);
> (*b*) Money-at-call with listed discount market institutions and brokers;
> (*c*) Treasury bills issued by the British and Northern Irish governments;
> (*d*) British government marketable securities with less than 1 year to maturity;
> (*e*) United Kingdom-local authority bills eligible for rediscount at the Bank; and
> (*f*) Commercial bills eligible for rediscount at the Bank (to a maximum of 2 percent of eligible liabilities).[8]

(3) The Special Deposits scheme was extended. When called, the deposits were to be a uniform proportion for all banks subject to the new Reserve Asset Requirement. A similar requirement was applied to finance houses. The interest paid on such deposits was to be the Treasury bill rate.

(4) The London and Scottish clearing banks ended their collective agreements on interest rates.

(5) The discount market continued to have exclusive access to the Bank of England's lender-of-last-resort facilities. It was agreed that the discount houses would continue to apply for the weekly Treasury bill issue, but not at an agreed price. In addition, they must also hold 50 percent of their funds in agreed government debt. Finally, call money lent to the discount houses was to count as required reserve assets.

(6) The government's policy of unqualified support for the gilt-edged market was ended. Rather than supporting bond prices by buying bonds near maturity, bond prices and, therefore, interest rates were to be allowed to fluctuate. This reflected increased

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[8] Monetary Control. Joint consultative document by the Treasury and the Bank of England. Cmnd 7858, March 1980, p. 17.

concern with the money supply rather than the structure of interest rates.

(7) The London clearing banks agreed to hold 1.5 percent of their eligible liabilities in the form of non-interest-bearing balances at the Bank of England. The requirement for any month relates to the level of eligible liabilities on the makeup day in the previous month. It is not necessary to maintain the ratio on a daily basis; daily deviations can be averaged over the month.

These reforms, therefore, moved in the direction of permitting an effective monetary policy at the expense of managing interest rates and the national debt. There was some ambiguity, however, because the retention of Special Deposits and the widening of assets eligible as reserves reflected continuing concern over the level of interest rates. Special Deposits could act like open market operations but have less effect on interest rates. By including certain government securities in the definition of reserve assets, the desirability of these assets was increased relative to others, implying lower interest rates. Despite these ambiguities, the reforms reflected the increased desire to control the money supply rather than interest rates.

Although these reforms gave the authorities the ability, via interest rates, to control the money supply, they were not used for this purpose in the early 1970's. Both fiscal and monetary policy were expansionary starting in late 1971. A rapid increase in the money supply occurred between 1971 and 1973 as a result of increases in domestic credit as well as inflows of foreign capital. M3 grew at 11.3 percent in 1971, 20.2 percent in 1972, and 21.6 percent in 1973. Because of the government's intentionally expansionary monetary policy, a conflict between interest rates and control of the money supply did not arise.

In 1973, the conflict between controlling the money supply and interest rates reasserted itself. In response to excessive money supply growth and "round-tripping" during 1973, the Supplementary Special Deposits (SSD) scheme, or "corset," was instituted. "Round-tripping" involves borrowing from a bank, sometimes through overdraft facilities, and lending or redepositing the borrowed funds with the same or another bank at higher interest rates and thus directly contributing to the growth rate of the money supply. It results when relative interest rates are skewed in a way that such behavior becomes profitable. It was believed that round-tripping was contributing 1 percent a month to M3 growth during the summer of 1973. The "corset" called for the banks to place noninterest bearing deposits at the Bank of England if the growth rate of interest-bearing-eligible liabilities (IBEL's) exceeded certain limits. The scale of supplementary deposits increased with the excess growth rate over that allowable. The rate of call increased from 5 percent, for an excess of 3 percent or less, to 50 percent for an excess of more than 5 percent. By limiting competition for interest-bearing deposits, an immediate objective of the corset was to change relative interest rates in such a way as to remove the incentive for round-tripping.

The imposition of the "corset," rather than continued adherence to the market-oriented philosophy of the Competition and Credit Control reform, marked a return to quantitative controls. As mentioned in the Green Paper on Monetary Control of March, 1980, the "main purpose

for introducing such controls . . . has been to reduce the need to raise interest rates, at least in the short term, by causing banks to ration their lending." [9] The corset differed from the quantitative controls of the 1960's in that it applied directly to the liabilities' side of banks' balance sheets, rather than to the assets side. Controls in the 1960's had applied to the growth of bank advances or lending, rather than to deposits.

Although the "corset" was a movement away from market-oriented control techniques and was used repeatedly until the spring of 1980, monetary policy and particularly control of the money supply became increasingly important throughout the remainder of the 1970's. Under Callaghan's government in 1976, monetary policy became distinctly more "monetarist," partly in response to IMF pressures. As mentioned above, IMF conditionality included targets for both DCE and the PSBR. Shortly after the IMF agreement was concluded, the government announced a target for the growth rate of sterling M3 of 9 to 13 percent. In response to the monetary explosion of 1972 to 1973, control of the money supply had become an internal objective of the Bank of England in 1974, but explicit targets were not announced until December 1976. Since then, the authorities have continued to announce explicit targets for the growth rate of sterling M3 on an annual basis.

Instruments available to control the growth rates of the monetary aggregates did not change with the adoption of monetary targeting and continued to include changes in interest rates, the size of the government deficit and its financing, plus the SSD scheme. These instruments will be discussed in greater detail below.

Prime Minister Callaghan's government was moderately successful at achieving its monetary targets. The March 1977 budget established a target range of 9 to 13 percent for the rate of growth of sterling M3 for 1977/78. Monetary growth was moderate in the first half of the year but accelerated later in the year. This was due primarily to the external sector. Foreign exchange reserves increased as the Bank intervened to maintain the exchange rate at about $1.72. This put pressure on the money supply and sterilization proved increasingly difficult. The decision was made to achieve the monetary targets rather than to hold down the exchange rate. The exchange rate was, therefore, allowed to appreciate to remove the pressure on the money supply from foreign inflows. But the money supply exceeded its target anyway because of an unexpectedly large increase in the PSBR.

In the April 1978 budget, the target for the growth rate of sterling M3 was decreased to 8 to 12 percent. It was also announced that monetary targets would be reassessed every 6 months rather than once a year. Facing evidence of increasing bank lending and doubts that the PSBR limit would be met in 1978–79, the government announced a set of restrictive measures on June 8, 1978. These included introduction of the National Insurance Surcharge to reduce the PSBR, an increase in the MLR from 9 percent to 10 percent, and the reintroduction of the SSD or corset scheme. The corset had previously been in effect from November 1976 to August 1977.

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[9] Monetary Control. Joint consultative document by the Treasury and the Bank of England. Cmnd 7858, March 1980, p. 3.

In November 1978, monetary conditions were further tightened. The MLR was increased from 10 percent to 12 percent. In addition, the target range for sterling M3 was held at 8 to 12 percent, but a change in the base figure from April to October 1978 implied a more restrictive monetary stance. The MLR was further increased to 14 percent on February 8, 1979. In the year to mid-April 1979, the growth of sterling M3 was about 11 percent, within the 8 to 12 percent range set in the previous April. In the first 6 months to mid-April 1979, sterling M3 grew at a 12 percent annual rate, within the 8 to 12 percent target range which had been rolled forward to October 1979.

In the first half of 1979, however, demand for bank credit was strong and sterling bank lending to the private sector grew at an annual rate of 28 percent. It was also clear that the "corset" was causing disintermediation in the form of bank acceptances held outside the banking sector, which implied that the money supply figures were becoming increasingly distorted and not a good measure of the monetary position of the economy. It was under these monetary conditions that Mrs. Thatcher took office in the spring of 1979.

Although explicit monetary targets were first used under Mr. Callaghan's government, they were part of a larger policy program based on the management of aggregate demand, combined with other policies aimed at restraining wage and price inflation and promoting industrial development. Monetary targets, although important and stressed, were not accorded priority over all other government objectives. This differs dramatically from the role assigned monetary policy under Mrs. Thatcher, as will be discussed below.

While the evolution in monetary control was taking place in the United Kingdom, selective credit controls were also used to varying degrees over the last two decades. As opposed to controlling the aggregate quantity of credit, selective credit controls seek to influence the composition of credit extended by the banks. Sometimes selective controls were imposed intentionally; other times, selective effects resulted from various attempts to control the aggregate quantities. Selective policies were used both to influence the shortrun impact of aggregate demand policies on different sectors of the economy, and to influence the direction of credit over the longer term as a means of promoting desired structural change.

In both the 1950's and 1960's, the authorities requested banks to restrict lending to essential purposes and to withhold credit for speculative purposes. In the 1960's, when quantitative ceilings were in effect, the Bank requested the clearing banks to make loans for financing exports and shipbuilding at fixed interest rates. These loans, as well as those to nationalized industries and local authorities, were exempt from ceilings. Hire purchase controls, used extensively in the 1960's, had heavily selective implications, affecting mainly the purchase of consumer durables. These selective effects, however, were not based on welfare considerations. Instead, hire purchase controls were used because they were very effective at controlling credit and have a strong and immediate impact.

In the 1970's, selective credit control techniques continued to include guidance, or moral suasion, and selective hire purchase controls. The

Bank of England has requested that banks and finance houses extend credit in specified directions. An example of the Bank's guidance is set out in its notice of April 11, 1978:

Banks and finance houses are asked: (i) to provide, within the bounds of banking prudence, finance required for both working capital and fixed investment by manufacturing industry and for the expansion of exports and the saving of imports; (ii) in order to insure the future ability to meet the requirements in (i) above, to exercise strict restraint on lending or provision of facilities for other purposes including, in particular, those to persons and property companies and for purely financial transactions. Banks and finance houses are reminded that they should not provide either loans to persons or check-trading facilities for the purchase of goods covered by the terms control order on terms easier than those permitted for hire-purchase contracts.

Pay Policies

Pay policy has also been used by both parties in Britain for most of the last two decades. The following table outlines the general characteristics of the policies adopted during the 1960's.

TABLE III-1.—INCOMES POLICIES, 1960 TO 1970

Period	The policy	Implementation	Exceptions	Comments
November 1961	Zero norm	Voluntary	Existi g commitments honored.	
April 1962	2 to 2½ percent	do	1. Productivity; 2. Labor allocation; 3. Comparability.	
November 1962	National Incomes Commission established.			To advise on wage settlements.
February 1965	National Board for Prices and Incomes to be established. Warning given by Government that unless unions and employers cooperate, statutory authority will be considered.			
April 1965	Norm for money income of 3 to 3½ percent.	Voluntary	1 through 3 above plus: 4. Provisions for low pay.	
July 1966	Freeze for 6 months	Statutory		
November 1966	Zero norm to end June 1967.	Restriction orders could be made on excessive settlements under pt. IV of Prices and Incomes Act 1966, effective October 1966.	1 through 4	
July 1967	Zero norm	Government power to impose standstill on settlements pending investigation.	do	
April 1968	do	Same as above	1 through 4 but with 3½ percent ceiling on exceptions, except for genuine productivity bargains.	
January 1970	2½ to 4½ percent	do	1 through 4	

Incomes policies were used by Edward Heath's Conservative government between 1971 and 1974 and by the Labor governments of Wilson and Callaghan. The 1970's started with high pay increases and inflation, partly because the Conservative government ended the previous Labor government's incomes policies upon taking office in 1970. The new government had declared its intention to avoid formal price and pay policies and to rely instead on market forces. During its first

6 months in office, hourly wage rates increased at an annual rate of 16.2 percent. In response, the government tried to encourage voluntary deescalation in pay settlements. The "N–1" policy called for a step-by-step decrease in pay settlements to 8 percent by the end of 1971, with the public sector setting an example. During 1971, there was some evidence that this approach was working. However, 250,000 coal miners initiated a strike which resulted in a Court of Inquiry declaration that the miners were a "special case," granting them a settlement of 20 percent. This discredited the government's "N–1" approach to pay and settlements escalated.

The government attempted to negotiate a voluntary pay policy with the Trade Union Congress and the Confederation of British Industry, but was unsuccessful partly because of contention with the unions over the Industrial Reorganization Act. As a result, a statutory 90-day standstill on prices, wages, and dividends was instituted on November 6, 1972. This was followed by "Stage Two," adopted in April 1973, which called for a statutory pay norm of £7 plus 4 percent. This implied a weighted average increase in earnings of about 7.5 percent. A ceiling of £250 per year was also imposed on pay increases.

"Stage Three" established a statutory norm of 7 percent or £2.25, whichever was highest, and a ceiling of £350. Exceptions were allowed for productivity improvements up to 3½ percent, change in pay structure up to 1 percent, staged movements toward equal pay, compensation for "unsocial hours," and extra holidays. The average pay bill, including exceptions, was expected to increase 10 to 11 percent. Threshold agreements were also instituted under Stage Three. From a base of October 1973, an increase in the retail price index of 7 percent would trigger a payment of 40 pence per week. For every percentage point above 7 percent, an additional 40 pence would be paid.

In March 1974, the Conservative government was replaced by Harold Wilson's Labor government after a miners' strike which called for settlements in violation of Stage Three. The Labor government was committed to ending statutory pay policy, and Stage Three controls were removed in July 1974 when the appropriate legislation was finally repealed. The threshold provisions continued to apply, however. The large increase in the cost of living following the oil price increases triggered the threshold payments more than was expected and resulted in inflationary wage settlements.

With the ending of the statutory pay policy, the Labor government adopted a policy of voluntary cooperation with the unions, embodied in the Social Contract, which was based on proposals discussed in a TUC-Labor Party document published in February 1973. This policy was not successful during 1975, partly as a result of the increases in the cost of living which led to large wage settlements. For 1975–76, the government concluded a tighter agreement with the TUC. A £6 per week maximum was called for in addition to a 12-month rule. Although not completely successful in holding average earnings on target, the rate of earnings increase declined. The policy was voluntary, but TUC support was won in return for specific government commitments on prices and industrial policy.

In 1976–77, the agreement between the TUC and the government was renewed. A 5-percent norm was established, with a minimum of

£2.50 and £4 maximum per week increase. The policy again was not completely observed, but the increase in earnings did fall below double digits by October 1977. In general, therefore, the Social Contract was successful during 1976 and 1977. Cooperation between the TUC and the government led to a moderation in the rate of increase of wage settlements.

In 1977–78, no comparable agreement between the TUC and the government could be reached. The government set a 10-percent target for increases in earnings without TUC approval. The actual increase during the year was closer to 15 percent, an increase of 7 percentage points over the preceding year. In 1978–79, the Labor government set guidelines of 5 percent for pay settlements. Neither the TUC or the Labor Party, however, supported the government's pay policy. Initially, the guidelines were to be backed by sanctions, but the use of sanctions was defeated in Parliament in December 1978. Despite the lack of explicit cooperation from the trade unions, toward the end of 1978 it looked as if pay settlements were moderating. At the end of 1978, however, several high settlements were reached.

In early 1979, the government's pay guidelines were further challenged. Truck drivers secured a 22-percent settlement and the local authority manual workers, after a disruptive strike, won a pay increase of 9 percent plus £1 with a guaranteed staged comparability exercise. In general, the 1978–79 pay round was marked by industrial disruption and an increase rather than a decrease in the rate of settlements. In April 1979, just before the May 3 election, civil service unions held a 1-day strike and rejected a generous government offer in line with public-sector pay deals that had been made over the winter.

Industrial and Regional Policies

In addition to aggregate demand management and incomes policies, both parties have also relied on a number of specific "industrial policies" to promote increased productivity and economic growth. These policies have been specifically aimed at the United Kingdom's deteriorating industrial performance, evidenced by its diminishing share of world trade in manufactures and increasing import penetration. The use of these policies has reflected concern about whether other policies adopted, specifically aggregate demand management, were sufficient to insure the investment and improved industrial efficiency needed to keep the United Kingdom's economic performance from falling further behind.

Governments have provided various forms of assistance to industry over the last three decades. Incentives to investment in the form of tax relief have been used repeatedly. They were first used in 1945 when the government introduced a system of initial allowances, which permitted accelerated depreciation for tax purposes. Under this scheme, total depreciation over the life of an investment equaled cost. In 1954, the investment allowance was instituted. It was similar to the initial allowance except that first-year depreciation did not have to be offset by reductions in allowances later on; taxation was not only deferred but reduced. These two programs have been in nearly continual operation, the applicable rates varying both over time and by type of investment.

The effectiveness of these schemes were felt to be limited for several reasons. There was a delay before benefits would be received and the tax allowance implied a benefit only if sufficient profits were made. In response to these problems, the Investment Grant System was introduced in 1966. Under this scheme, subsidies were to be paid in cash within 6 months of the capital expenditure, regardless of whether the firm was making profits. This grants system lasted until 1970, at which time the investment allowance was reinstituted. It applied on a national basis and allowed accelerated depreciation against taxation of 100 percent of expenditure on plant and machinery after March 1972. Allowances on industrial buildings included an initial allowance of 50 percent and an annual allowance of 4 percent of cost, which was to start when the building was first used.

Regional policies, designed to alleviate the disparity between the economic performance of different regions, have also been adopted by successive governments. Attempts to convince firms to locate in depressed regions have included Industrial Development Certificates (IDC's), a form of zoning, as well as financial incentives for relocation. IDC's were required for industrial development over 5,000 square feet and were most easily available for depressed regions, officially designated Development Areas in 1966. Financial incentives initially involved higher investment incentives for Development Areas. When investment grants were abolished in 1970, initial allowances became the main regional incentive. In 1972, cash grants called Regional Development grants were reintroduced.

Grants were criticized on the grounds that they subsidized capital while regionally depressed areas suffered from high unemployment. In 1967, the Regional Employment Premium was instituted partly in response to this criticism. It provided a direct subsidy on a per employee basis to all firms located in Development Areas. Various other measures have also been used. Regional aid has been supplied through the provision of both infrastructure and government-owned land and buildings at low rates. Attempts were made through the Selective Employment Tax of 1965 to promote movement of labor from low to high productivity sectors. Only limited training has been supplied by government, but such programs were beginning to receive increased attention in the late 1970's. Other forms of government assistance have included support for industrial innovation (mainly to the space, aircraft, and nuclear power industries) and direct aid to particular sectors of private industry (including the shipbuilding industry, the automobile industry, and International Computers (Holdings), Ltd.).

Local authorities, as opposed to the central government, also have the power to promote industry in their areas. The majority of these powers are derived from the Local Authorities (Land) Act 1963, the Local Government Act 1972, and the Inner Urban Areas Act 1978.

The 1970's have been characterized by more direct attempts to promote industry by both Conservative and Labor governments. The Industry Act of 1972 provided various forms of financial assistance to industry. Part I of the Act provided for Regional Development Grants, which became the major source of support to industry in the Development Areas. Grants were available for new building construction, adaptation of existing structures, and new plant and machinery.

Section 7 calls for selective assistance to projects that support employment in development areas. Section 8 allows for selective assistance to investment anywhere in the United Kingdom, if it is in the national interest. About half of the payments under this section have been made under the Accelerated Projects Scheme, the Selective Investment Scheme, and schemes aimed at particular industries. The Accelerated Projects Scheme applied between April 1975 and July 1976, allowed projects to be brought forward, particularly countercyclically, by providing otherwise unavailable funds. This scheme was followed in December 1976 by the Selective Investment Scheme which ended in June 1979. It was designed to provide investment funds to projects deemed beneficial to the economy, but that would not otherwise be undertaken. This scheme was applied on a selective basis and directed mainly toward the manufacturing sector, and particularly to the engineering industry.

Assistance to individual industries under Section 8 of the Industry Act was generally intended to promote modernization and rationalization. The following sectoral schemes were instituted under this provision: [10]

Wood Textile Industry Scheme.
Ferrous Foundry Industry Scheme.
Machine Tool Industry Scheme.
Clothing Industry Scheme.
Paper and Board Industry Scheme.
Nonferrous Foundry Industry Scheme.
Electronic Components Industry Scheme.
Instrumentation and Automation Industry Scheme.
Drop Forging Industry Scheme.
Footwear Manufacturing Industry Scheme.
Assistance to Manufacturers of Printing Machinery.
Assistance to Manufacturers of Textile Machinery.
Poultrymeat Processing Industry Scheme.
Red-meat Slaughterhouse Industry Scheme.
Offshore Supplies Interest Relief Grant Scheme.
Assistance to Offshore Projects.
Microelectronics.

The most dramatic "industrial policy" adopted during Labor's term in office in the 1970's was the Industrial Strategy, endorsed in November 1975 at a tripartite National Economic Development Council meeting. Its ultimate aim was to improve the efficiency of industry by establishing medium-term objectives and by alleviating constraints in main sectors of industry. Toward these ends, it aimed to bring together management, unions, and the government to discuss the specific problems of key sectors of manufacturing industry. Thirty-seven Sector Working Parties (SWP's) were set up, accounting for over 40 percent of manufacturing output. Their tasks included identifying short-term supply constraints, recommending solutions, and developing medium-term objectives for their sectors.

The Industry Act of 1975 set up the National Enterprise Board (NEB). Its statutory purposes were to develop and assist the United

[10] Wilson Committee report, app. 6, p. 542.

Kingdom's economy, to promote industrial efficiency and international competitiveness, and to protect productive employment. The NEB would provide finance to firms for industrial development in exchange for a share in their equity. Priority was to be given to the manufacturing industry. In addition, the NEB would act as a holding company for shareholdings in industrial companies, acquired either through its financing activities or by transfer from the government. Shares of British Leyland and Rolls-Royce were transferred to the NEB when it was initially set up. By the beginning of 1978, £300 million of its initial £1 billion in funds had been invested, mostly with British Leyland and Rolls-Royce.

It is difficult to know how beneficial these various policies have been. Aimed at reversing long-term trends, they require long time periods to operate effectively. A major criticism of the policies adopted has been their inconsistent application over time. Successive governments have continually changed the provisions of specific schemes, making it difficult for firms to rely on the long-term benefits of various policies. Despite this, there appears to have been increasing interest in such policies over the last decade, as aggregate demand management policies proved increasingly unable to solve the problems of the economy. This trend, however, was halted with Mrs. Thatcher's election.

Summarizing, a combination of aggregate demand management policies, incomes policies, and industrial policies have been used over the last two decades by governments of both parties to achieve a combination of objectives, including economic growth, low levels of unemployment and inflation, and balance-of-payments equilibrium. Emphasis has shifted between the various objectives over time as one or more problems have asserted themselves. Towards the end of the 1970's, inflation increasingly became the focus of economic policy and monetary policy increasingly was seen as a major part of the solution. It was not until Mrs. Thatcher came to office, however, that inflation became the sole priority of economic policy and "monetarist" policies totally replaced more Keynesian methods of demand management.

Mrs. Thatcher

Mrs. Thatcher came to office in the wake of Callaghan's unsuccessful attempt to use aggregate demand management and an incomes policy to deal with the problems of the British economy. She espoused an economic program based on "monetarist" theories and belief in a freely operating market economy. In these respects, Mrs. Thatcher's program marked a major change in policy in the United Kingdom. The government stated its medium-term objectives to be the reduction of inflation and the improvement of the "supply side of the economy." Short-term stabilization policies were rejected in favor of policies considered necessary for creating "the conditions for a sustainable growth of output and employment in the longer term." The cornerstone of the anti-inflation policy was to be a reduction in the growth rate of the money supply. Improvement in the supply side was expected to result both from reduced inflation and increased reliance on the free functioning of the market economy.

Monetary Control

In accordance with its anti-inflation policy, the Conservative government has consistently pursued a decrease in the growth rate of sterling M3 since it came to power. In the budget speech in 1979 shortly after taking office, the Chancellor of the Exchequer, Geoffrey Howe, announced the government's intention to decrease progressively the growth rate of the money supply over the immediate future. A money supply target of 7 to 11 percent at an annual rate for the 10 months to mid-April 1980 was announced as a first step.

Monetary growth had accelerated in the first half of 1979 under the Labor government, with sterling M3 growing at 16.8 percent at an annual rate during the second quarter of 1979. The Conservative government was therefore faced with faster monetary growth than desired upon taking office. The money supply target chosen—7 to 11 percent for the 10 months to April 1980—was actually equivalent to the 8 to 12 percent range set by Mr. Callaghan's government for the entire year, given the high growth of money in May and June of 1979. However, by reducing the numerical target, the new Conservative government affirmed its intention to decrease money supply growth in the future. On November 15, 1979, the target of 7 to 11 percent for sterling M3 was extended to mid-October 1980.

The government reiterated its monetary policy objectives in 1980 in its Medium-Term Financial Strategy, included in the Financial Statement and Budget Report for 1980–81. A target range of 7 to 11 percent had been announced for sterling M3 for 1980–81. In addition, the government announced its intention to reduce the annual growth of the money supply to about 6 percent by 1983–84. Toward this goal, the government announced a progressive deceleration of the target range over the period as follows:[11]

TABLE III–2.—*Ranges for growth of the money stock (sterling M3)*

Percentage change during year:	
1980–81	7–11
1981–82	6–10
1982–83	5–9
1983–84	4–8

The current government's justifications of its monetary policies appear to be based on both the work of Milton Friedman and various "rational expectations" authors, in particular William Fellner. First, it is believed that a reduction in the growth rate of the money stock is necessary and sufficient for a permanent reduction in inflation.

There is a clear relationship between the growth rate of the money stock and the rate of inflation in the medium term. This is the foundation of the government's strategy for reducing inflation by means of monetary control. The mechanisms by which changes in the money stock are transmitted to the price level may be different in different countries and different periods of history. They may depend on the methods of monetary control adopted, and they will probably change over time as the private sector's perception of policy changes. But the proposition that prices must ultimately respond to monetary control holds whatever the adjustment process in the shorter term may be.[12]

[11] "Medium-Term Financial Strategy." Financial Statement and Budget Report 1980–81, Mar. 26, 1980, p. 16.

[12] Memorandum by HM Treasury. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720, pp. 11–12.

In addition, it is believed that the government cannot determine the level of employment, that there is no long-run tradeoff between inflation and unemployment, and that policies which attempt to decrease unemployment will, in the end, only increase inflation. Given this, the government does not set targets for the ultimate objectives of the inflation rate and nominal GDP, because they are not within its direct control. Instead, it sets targets for an intermediate target, the growth rate of the money supply, which is more responsive to policy instruments and, therefore, more directly under its influence.

The government believes that the best way to formulate its monetary policy is to set targets for the growth of one of the monetary aggregates. Sterling M3 has been chosen as the appropriate aggregate for targeting, both by this government and previously by Mr. Callaghan's. It is realized that no single aggregate is adequate to measure monetary conditions; therefore, several other aggregates are monitored in addition to sterling M3. On the other hand, the authorities argue in favor of setting targets in terms of one aggregate because this facilitates the public's appraisal of the government's policies. In the short run, the various monetary aggregates can diverge substantially. Targeting several aggregates, therefore, might imply apparently inconsistent policy measures in the short run and would make appraisal of the government's policies difficult. The desire to maximize the public's understanding of the government's policies also explains why monetary targets are explicitly announced and published.

The authorities justify the choice of sterling M3 for the target as follows:

> It is well understood in the markets. It indicates links with the other policies—fiscal policy, debt marketing policies, policies to restrain bank credit, and exchange market management—and gives a general assurance that the macroeconomic policies available to the government will be used in a way which mutually support each other in the reduction of inflation. It is also relatively easy to define in terms of the banking system.[13]

The particular choice of sterling M3 as the monetary target is not predicated on a superior relationship to ultimate policy objectives. The opinion of the authorities appears to be that, although the various monetary aggregates can move in divergent directions in the short run, over longer periods they are closely related, so that policies directed at controlling one of the aggregates will tend also to control the others. Therefore, the choice among the aggregates is made according to which is most closely related to inflation or nominal GDP. This is considered a second order issue. The authorities do reserve the right to change the specific target chosen in the face of structural change.

In addition to monetarist doctrines, the government appears to be appealing to the "rational expectations" hypothesis that the loss of output in the short run in response to monetary disinflation depends on how quickly behavior takes into account the monetary commitments of the government. If earnings growth comes quickly into line with the growth of the money supply, the costs of bringing down the inflation rate in terms of lost output and employment will be minimized. The government expressed its hope that a firm and well-under-

[13] Monetary Control. Joint consultative document by the Treasury and the Bank of England, Cmnd 7858, March 1980, p. iv.

stood public commitment to published monetary targets would have a direct effect on wages through effects on price expectations. The government believes that more flexible policies of the "feedback" type would lack credibility and, therefore, would not have as beneficial an effect on expectations.

The government attempts to control the money supply by employing a combination of policy instruments which affect the main components of sterling M3. To see this, it is useful to examine the accounting identity of the asset side of the banking system balance sheet, or the credit counterparts of the money stock.

Increase in sterling M3 = Public-sector borrowing requirement—
- *less* Purchases of public-sector debt by the United Kingdom private sector other than banks.
- *plus* Increase in official holdings of commercial bills.
- *less* External and foreign currency finance of the public sector.
- *plus* Increase in sterling lending to:
  - United Kingdom private sector.
  - Overseas residents.
- *less* Increase in:
  - Overseas sterling deposits.
  - Foreign currency deposits net of foreign currency assets.
  - Nondeposit liabilities.[14]

It should be noted that the components on the right-hand side of the above identity are not independent; any policy action which affects one will induce changes in the others and the net effect on the money supply will not be one for one.

Fiscal policy, through its effect on the PSBR, is one of the main policy instruments available to the authorities to influence monetary conditions. A consistent fiscal policy is seen as essential to monetary control. The authorities have continually reaffirmed their intentions to decrease the PSBR as a proportion of GDP in support of the government's monetary objectives.

The authorities recognize that there is not a fixed relationship between the PSBR and changes in sterling M3, and that alternative combinations of the PSBR and interest rates are consistent with the achievement of a given target for the growth rate of the money supply. An increase in the PSBR implies higher interest rates for a given money supply growth rate. The effect of the increase in the PSBR on sterling M3 is offset by the effect of increased interest rates on bank lending and by the purchase of gilts by the nonbank public, two other components of a change in sterling M3.

Whether the authorities believe that fiscal policy affects aggregate demand independently of its contribution to monetary conditions is unclear. The Bank of England [15] argues that the PSBR should be allowed to vary cyclically and operate as a built-in stabilizer. This implies that the PSBR can have real effects in the short run, whether the

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[14] Appendix I explains the derivation of this relationship. Appendix II presents data on the annual increases in sterling M3 over the last 8 years, rearranging the items on the right-hand side of the accounting relationship in a way that brings together the components of DCE and external and foreign currency finance.

[15] Memorandum by the Bank of England. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720.

debt is monetized or funded. On the other hand, the Treasury in the "Memoranda on Monetary Policy" equivocates on whether "crowding-out," which occurs when public sector "activity displaces private-sector activity," is complete or not.

> An increase in the PSBR (as a percentage of GDP) is not necessarily an expansionary policy if it is associated with unchanged monetary targets. The increased interest rates necessary to maintain monetary control will have a contractionary effect, tending to offset any stimulus to demand from tax cuts or from increased public spending.
>
> The scale of these offsetting effects is very uncertain and the econometric evidence in this area is not easy to interpret.[16]

For complete crowding out, an increase in the PSBR would have to result in increased interest rates which had a totally offsetting contractionary effect on private expenditure. This is most plausible in an economy at full employment. In an economy at less than full capacity utilization, it is less likely. An expansionary fiscal policy may actually increase private investment via an accelerator-type mechanism, even if there are severe interest rate effects.

Short-term interest rates are a second principal instrument of monetary control. Although an increase in interest rates will have differing effects on all the counterparts of a change in sterling M3, the general presumption is that an increase in interest rates will decrease the growth rate of the money supply. This results from two effects which are considered to dominate any others which might work in the opposite direction. A rise in interest rates tends to both increase gilt sales and decrease bank lending. The sale of gilts to the nonbank private sector allows the government to finance the PSBR without directly increasing the money supply: the public debt is funded as opposed to monetized.

Changes in interest rates have often been aimed at slowing money growth by reviving sales of gilts to the nonbank private sector. If an increase in interest rates creates the expectation that rates will fall in the future, the demand for gilts will increase in the expectation of future capital gains. Therefore, interest rates affect the public's speculative demand for money. The authorities also attempt to affect bank lending through changes in interest rates. However, the authorities realize that bank lending is influenced by other factors besides interest rates, including the financial position of the company sector. In general, the authorities realize that interest rates will affect bank lending slowly and that "it is not feasible . . . to exercise an exact control over bank lending through interest rates in the short run." [17]

The Bank of England varies short-term interest rates by altering the MLR and making it effective through money market operations conducted through the discount market. There exist two requirements on the banks, the Reserve Assets Ratio and the associated power to call for special deposits, and the cash requirement on the London clearing banks. Joint use of the RAR and the Special Deposits Scheme was initially regarded as a means of controlling short-term interest rates. It became apparent quickly, however, that such joint use was not

[16] Memorandum by HM Treasury. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720, p. 10.

[17] Monetary Control. Joint consultative document by the Treasury and Bank of England, Cmnd 7858, March 1980.

workable. In response to a shortage of reserves caused by a call for special deposits, banks would bid for increased liabilities with which to obtain more reserve assets rather than decrease their total assets. This would cause perverse movements in both interest rates and sterling M3. The Treasury bill rate would fall relative to the interbank rate. As the interbank rate rose relative to other rates, bank deposits and certificates of deposit and, therefore, sterling M3 would increase.

Consequently, the authorities have reviewed the operation of the RAR and no longer consider it necessary for influencing short-term interest rates. It has been recommended that the RAR be replaced by a prudential liquidity requirement. The cash requirement is, therefore, the fulcrum on which the Bank of England operates through its money market operations to affect short-term interest rates.

Techniques of financing the government debt outside the banking system provide a third instrument of monetary control. When the PSBR is financed outside the banking system, it does not contribute directly to the growth of the money supply. A large PSBR complicates monetary control by putting pressure on the authorities to undertake greater funding, while the demand for long-term government debt can be quite erratic.

During periods of uncertainty, the interruption of sales of gilt-edged stocks to the nonbank public leads directly to short-run increases in sterling M3. To avoid this problem, some changes in the technique of debt sales have already been adopted and others have been suggested to achieve a smoother pattern of sales of gilts. Various tender systems have been proposed which would allow larger changes in the prices and yields on gilts. A partial tender technique with a minimum tender price was instituted in March, 1979. The government would also like to broaden the market for short-term government debt to ease the pressure on long-dated yields.

Finally, quantitative controls in the form of the corset have also been used by the authorities to influence monetary conditions. As discussed above, the corset sets guidelines for the growth of banks' interest-bearing eligible liabilities in an attempt to slow bank lending without directly increasing interest rates.

The Thatcher government has used a combination of these instruments—fiscal policy, interest rates, gilt sales, and quantitative controls—in attempting to achieve its monetary targets. In particular, the Thatcher government has stressed the importance of a decrease in the PSBR to help achieve its monetary objectives without relying excessively on interest rates. Toward this end, a PSBR of £8.3 billion was forecast for 1979–80. This was to be achieved by expenditure cuts rather than tax increases and, accordingly, the 1979–80 budget presented on June 12, 1979, called for substantial expenditure reductions.

The 1979 budget also called for the substantial income tax reductions, which will be discussed below. This placed a great burden on expenditure cuts and made necessary increases in alternative revenue sources to reduce the PSBR. Expenditure cuts affected employment and industrial support schemes and the housing sector heavily. To further decrease the PSBR, the budget also called for the sale of public-sector assets of about £1 billion in 1979–80. A quarter of these sales were of shares in the British Petroleum Co., Ltd.

In the first half of financial 1979/80, the PSBR was estimated at £6½ billion, compared to the full-year estimate of £8.3 billion. This was explained in part by industrial disputes which delayed the collection of VAT revenue, whose effect on the PSBR was expected to be reversed in the second half of the year. In any case, the government announced in mid-November that the oil companies would be required to advance payments of the Petroleum Revenue Tax (PRT), which had been established to tax revenue from the sale of North Sea oil, by 2 months. This was expected to decrease the PSBR by £700 million and put it back on target.

The Thatcher government announced its intention to continue expenditure cuts into 1980–81 in the White Paper on Government Expenditure Plans for 1980–81 published on November 1, 1979. Public expenditure, in real terms, for 1980–81 was forecast to be 5 percent below the level planned in Callaghan's January 1979 White Paper.

In the Medium-Term Financial Strategy, the government's concern with the PSBR was again demonstrated. Projections for the PSBR, given the government's plans for public expenditure and assumptions about GDP growth, were presented for the period 1980 to 1984. Over this period, the government aimed to decrease the PSBR progressively from 4.75 to 1.5 percent of GDP or around £2½ billion (1978–79 prices).

TABLE III-3.—PUBLIC SECTOR BORROWING[1]

[In percent]

	1978–79	1979–80	1980–81	1981–82	1982–83	1983–84
PSBR (billion pounds, 1978–79 prices)	9.3	8.0	6.0	5.0	3.5	2.5
As percentage of GDP at market prices	5.5	4.75	3.75	3.0	2.25	1.5

[1] Financial Statement and Budget Report, 1980–81. "Medium-Term Financial Strategy," Mar. 26, 1980, p. 19.

The Medium-Term Financial Strategy stated that the key to this strategy was a reduction in public expenditure. The government's White Paper on Public Expenditure [18] called for a progressive reduction of total public expenditure in real terms by 4 percent over the next 4 years. Given the government's assumptions about GDP, this implied a decrease in expenditure as a percent of GDP from 42 percent to under 40 percent. Planned expenditure was 5.5 percent (£4 billion in 1979 survey prices) below that planned by Callaghan's government, for 1980–81, and 11.5 percent (£9 billion in 1979 prices) below Callaghan's plans for 1982–83. The main reductions called for are in industry, energy, trade and employment and training programs, housing and education, and in the total net borrowing requirement of the nationalized industries. At the same time, provision for defense and law and order expenditure increased.

Public expenditure in Britain includes the total external financing needs of the nationalized industries. The White Paper calls for a continual reduction in these needs, leading to net repayment by 1983–84. The planned decrease in external financing requirements is based on increased real prices for the gas and electricity industries, de-

[18] The Government's Expenditure Plans, 1980–81 to 1983–84. March 1980, Cmnd 7841.

creased losses in the coal, steel, and shipbuilding industries, and decreased costs for British Rail. The government announced its determination that "the industries' investment should be strictly appraised, that their efficiency should be increased, and that steps should be taken to phase out underpricing." [19] The government, however, recognized that the figures for the nationalized industries were highly uncertain, because external financing depends on uncertain assumptions about pricing, productivity, and demand.

The government also planned further sales of public-sector assets in 1980–81 to decrease the PSBR. In addition to decreasing the current PSBR directly, the sales were expected to decrease the PSBR in later years by decreasing future borrowing by public corporations by more than the implied reduction in future public-sector receipts. External financing figures for British Aerospace were excluded from public expenditure estimates after 1980 on the assumption of the sale of shares in 1980–81.

TABLE III–4.—*Special sale of assets (£ million at 1979 survey prices)*

Estimated 1979–80	1,050
Planned:	
1980–81	500
1981–82	50
1982–83	50
1983–84	50

The expenditure plans included in the White Paper are the basis for cash limits set for 1980–81. Cash limits set a limit on the amount of cash the government proposes to spend on services or groups of services during a given financial year. The government announced its intention to:

> Hold the cash limits determined at the start of the financial year. Unless costs are contained within the provision in the 1980–81 cash limits for cost increases, these limits will require a reduction in the planned volume of expenditure in that year. In any case, the cash limits provide a further stimulus to greater efficiency, in line with the government's objectives, in the use of resources.[20]

Interest rate changes also have been used by the government to achieve its monetary objectives. Upon taking office, the government raised the MLR immediately from 12 percent to 14 percent. After excessive monetary growth during the first few months in office, the government announced, on November 15, 1979, several additional measures. The MLR was increased by 3 percentage points to a record 17 percent. Then, on July 3, 1980, the MLR was cut from 17 percent to 16 percent, in response to the deepening recession. On November 24, 1980, after much pressure from within Conservative Party ranks, the MLR was reduced a further 2 percentage points to 14 percent, again in anticipation of the future effects of the recession on bank lending and interest rates.

The government also continued to rely on quantitative credit controls, in the form of the corset, for 1 year after taking office. On March 26, 1980, the Bank of England announced that, with the approval of the Chancellor of the Exchequer, the Supplementary Special Deposit scheme would not be renewed in June 1980 when its then-current period

[19] The Government's Expenditure Plans, 1980–81 to 1983–84. Cmnd 7841, p. 54.
[20] The Government's Expenditure Plans, 1980–81 to 1983–84. Cmnd 7841, p. 8.

of operation ended. It had been in effect since June 8, 1978. The decision to end the corset reflected the realization that disintermediation was decreasing the usefulness of sterling M3 as a target aggregate. In addition, the Conservative government had relaxed exchange controls, which increased substantially the possibilities for avoiding the corset by borrowing and lending offshore.

Supply-Side Policies

The government's espousal of "monetarism" is one part of a larger economic policy program aimed at creating conditions over the medium term necessary for a sustainable noninflationary growth of output and employment. Toward this end, Mrs. Thatcher also came to office committed to "strengthening the supply side of the economy" through a decrease in the role of the state in the economy and an improvement in incentives for individuals in the private sector. She rejected the short-term stabilization of output, employment, and the external account, which had dominated economic policy in the 1950's and 1960's, as an inappropriate objective of government policy. Instead, emphasis shifted to reducing inflation and reducing the interference of the government in the functioning of the economy. The policies adopted in addition to monetarism by Mrs. Thatcher reflect these commitments.

The government's commitment to money supply targets and to the free market have dictated a "hands-off" policy toward the exchange rate. The government has repeatedly affirmed that it considers the exchange rate to be market determined and therefore outside of its control. This reflects an understanding that it is not possible to have an exchange rate target and an independent monetary policy. This lesson had been learned by Callaghan's government.

In 1977, large quantities of foreign funds entered Britain, a large proportion of which were fleeing the United States. The government attempted to maintain external competitiveness in manufacturing by preventing an appreciation of sterling while, at the same time, observing a money supply objective. The authorities, however, found that attempts to sterilize the inflows put upward pressure on interest rates which led to further inflows of capital.

Toward the end of 1977, it was decided that intervention was jeopardizing the control of the money supply and, in 1978, sterling was allowed to appreciate. After that, intervention was limited to preventing excessive fluctuations in the exchange rate. In addition, the government realized the beneficial effects of a high exchange rate on inflation. In 1978 and the first half of 1979, Callaghan's government appeared to favor an appreciating rate for this reason. Mrs. Thatcher's policies, therefore, in this regard, do not involve a total change of approach from the previous government.

In line with the Conservative government's market-oriented approach, exchange controls were relaxed in June and July 1979 and abolished completely toward the end of the year. On June 12, 1979, the government announced a number of relaxations of exchange controls as a first step toward the eventual removal of the exchange control system. These included the following: (1) Official exchange would

be available for new outward direct investment up to £5 million a project per year; (2) restrictions on the reinvestment of profits earned overseas by United Kingdom companies were abolished; (3) foreign currency available for travel was increased; and (4) the required 115 percent cover on overseas portfolios financed by foreign currency borrowing was abolished. On July 19, 1979, the government removed the remaining restrictions on outward direct investment and liberalized outward portfolio investment. On October 24, 1979, all remaining exchange controls were removed.[21]

The corset was removed in June 1980 on the grounds that it distorted sterling M3, involved excessive resource costs, and caused a loss of efficiency by limiting competition between banks. Also, the abolition of exchange controls had increased the scope for avoiding the corset: the banks could now avoid the corset by transacting business in the Euro-sterling market. And unlike bank acceptances, another avenue of disintermediation, the amounts involved are difficult to measure.

To increase incentives and reward initiative, the June 1979 budget decreased the direct tax burden on personal incomes. Substantial cuts in income taxes had been a major plank in the election platform of the Conservative Party. Personal income tax allowances were increased. The basic income tax rate was decreased 3 percent to 30 percent. The top rates on earned income were reduced from 83 percent to 60 percent and on unearned income from 98 percent to 75 percent. In addition, the bands of the higher tax rates were widened. After several additional changes in 1980, the current structure of personal tax rates is as follows:

TABLE III–5.—*Bands of taxable income*

Income in pounds:	*Percent*
0–11,250	30
11,251–13,250	40
13,251–16,750	45
16,751–22,250	50
22,251–27,750	55
Over 27,750	60

In addition, the threshold for the investment surcharge was increased from £2,500 to £5,000 in 1979, and to £5,500 in 1980. Corporate income taxation was also changed. The two rates of taxation remained unchanged at 42 percent and 52 percent, but the limits on which these are applicable were increased from £50,000 and £85,000, to £60,000 and £100,000. To offset the loss of revenue from these direct tax changes, indirect taxes were increased. Value Added Tax (VAT) was increased from 8 percent and 12½ to 15 percent.[22] In addition, excise duties on oil and the Petroleum Revenue Tax were also increased.

To decrease the role of the state and increase that of the private sector, industrial, employment, and regional policies have also undergone major revisions. The proportion of the country covered by regional policies has been decreased. When the Conservative government came to power, assisted areas accounted for 40 percent of the employed population. Over 3 years, this is to be reduced to 25 percent. In addition, the regional support budget is to be cut by over one-third. Prog-

[21] Annual Report on Exchange Arrangements and Exchange Restrictions, 1980. International Monetary Fund, pp. 421–422.

[22] The 8 percent rate applies to the standard VAT; the 12½ percent rate applies to luxury items (i.e., gasoline, appliances, boats, aircraft, cameras, furs, and jewelry).

ress in this direction has already been made by holding constant the present level of grants in the special development areas, reducing them in the development areas, and abolishing them in the intermediate areas.

In addition to regional development grants, selective assistance to industry in assisted areas was in the past available for projects which supported employment. More stringent criteria are now to be applied to new applications and assistance will be provided only if necessary for the project to be undertaken. Expenditure on this is expected to be 60 percent of the 1979–80 level.

Other regional aid, such as selective assistance under Section 8 of the Industry Act of 1972, will be continued, "but more selectively than hitherto and on the basis of stricter criteria." Policies on financial aid to industry have also been changed. In the June 1979 budget, public-sector aid to industry was decreased by £21 million.

In July 1979, the government also announced a changed policy toward the National Enterprise Board. The government would like the NEB to dispose of a large part of its shareholding and to look for as much private investment as possible. In addition, the government would like the NEB to direct investment, within a limited budget, toward companies involved in the development of advanced technology and located in the English Assisted Areas. In these cases, however, the NEB should look for private-investment resources and plan to sell its holdings as soon as possible.

Mrs. Thatcher came to office committed to free collective bargaining. The government believes that incomes policies have only temporary effects on wages, and that they reduce the efficiency of the economy by distorting relative wages. As mentioned above, the government believes that its monetary targets will affect wages by influencing price expectations. The government recognizes, however, that a restrictive monetary policy will moderate wage demands directly, and that a higher exchange rate will have an additional indirect moderating effect on wage settlements. The government has stressed that the partners of free collective bargaining must accept responsibility for the consequences of excessive settlements. It argues that since the government cannot ensure high employment, responsibility for unemployment rests with pay bargainers and employers who settle for nominal incomes in excess of the money supply targets.

Although clearly committed to "free collective bargaining," the Conservative government came to power with an ambiguous position on what this meant in terms of public-sector pay settlements. It is not clear whether the commitment was to be "what the taxpayer can afford" or to "comparability" with private-sector pay. The preceding government had been committed to the latter. In March 1979, the Clegg Commission had been set up to undertake comparability studies of pay in the private and public sectors in an attempt to avoid damaging public-sector pay strikes. The Tories came to power and continued to refer claims to Clegg. In addition, the government had made commitments to protect both the police and armed forces pay from inflation.

After a year in office, the Conservative policy on pay in the public sector has become less ambiguous. The government decided that public-sector pay had to be restrained, both because of anger in the private

sector about the disparity between public- and private-sector settlements and because high public-sector settlements were contributing to excessive public-sector expenditure. On August 4, the Clegg Commission was abolished in the interest of bringing public-sector pay down. The government also decided to suspend for this year the comparability-based agreement covering 550,000 white collar civil servants. In early November 1980, the government announced that the Rate Support Grant [23] for next year would be calculated on the assumption that local authority wages would increase by only 6 percent. The government then confirmed its intention to make the same allowance for pay in other cash limits.

Mrs. Thatcher would also like to see the power of the trade unions decreased. Toward this end, the Conservative government has proposed several changes in the trade union laws. First, the government would like to see new closed shops established only if supported by the majority of the employees and it would like generally to protect individuals against the closed shop. The government would also like to confine picketing to those who are party to a trade dispute. Finally, the government would like to see increased membership participation in the election of union leaders, the making of union rules, and the calling of strikes. Toward this end, the government has offered to pay the postal costs for secret ballots conducted for these purposes. The proposals are relatively mild by Conservative Party standards, but have run into union opposition.

The Results So Far

During its first 18 months in office, the Conservative government found it difficult to carry out simultaneously all of the elements of its economic policy program. In particular, the growth rate of the money supply and the public sector borrowing requirement exceeded the targets called for in the government's Medium-Term Financial Strategy. Wage settlements, although moderating, remained high, suggesting that the government's monetary targets were having little "expectations" effect on pay.

The small successes on wage and price inflation that the government has most recently experienced have resulted more from increases in the unemployment rate and the appreciation of sterling rather than from a slowdown in the growth rate of the money supply which has not occurred. Unemployment rose in the month to mid-November 1980 to a new postwar peak of 2.16 million, or about 8.4 percent of the work force, while vacancies decreased for the 17th month in a row. Throughout, sterling has remained strong, partly as a result of the high interest rates associated with the government's monetary policies. The high level of interest rates and sterling have contributed to the economy coming under pressure, despite the fact that sterling M3 has grown faster than targeted.

Most notoriously, and damaging to her economic policy as a whole, Mrs. Thatcher has not been able to control the growth rate of the money supply. Between June 1979 and July 1980, sterling M3 grew at an annual rate of 15.9 percent, compared to a target of 7 to 11 percent. The

[23] The Rate Support Grant is the general grant from the central government to local authorities to supplement income from rates.

growth rate accelerated in the second half of this period, reaching an annual rate of 23.3 percent between February and July 1980. In the month to mid-July alone, sterling M3 grew 5 percent, followed by a further increase of 3 percent in August. In the month to mid-October, it grew by 2 percent, resulting in a growth rate of sterling M3 to 24 percent on an annual basis since February 1980, the start of the current target period.

In November 1980, the Chancellor of the Exchequer acknowledged that the growth of sterling M3 would exceed the range set through April 1981. Rather than extending the 7 to 11 percent range beyond the April 1981 target date, it was announced that a new guideline would be set at that time.

The government's inability to hit its targets this last year can be partly explained by the unwinding of distortions caused by the Supplementary Special Deposits Scheme, which was removed in June 1980. The corset's removal was motivated by the recognition that it was causing disintermediation and undermining the usefulness of the monetary aggregate targets. A major source of this disintermediation was the "bill leak"—increased holdings outside of the banks of bank-accepted commercial bills, which were held by lenders in lieu of certificates of deposit. These transactions would not affect a bank's "interest-bearing eligible liabilities" and therefore would both avoid the corset restrictions and not be included in the sterling M3 statistics. Alternatively, with the abolition of exchange controls, transactions could easily avoid the corset by going to the Euro-sterling market.

Some reintermediation, and therefore an increase in sterling M3, was expected with the removal of the "corset." The size and speed of reintermediation which actually occurred, and therefore the effect on the money supply, was not expected. The government at the time felt that its monetarist policies were working. On July 3, 1980, just after the corset was removed, the government lowered the MLR 1 percentage point from 17 percent to 16 percent, emphasizing that the decrease was compatible with its monetary targets. But, with the removal of the corset, rapid reintermediation resulted in unexpectedly high money supply growth rates over the summer. About £1 billion in the bill leak was reversed,[24] adding an equivalent amount to bank lending and significantly increasing the growth of sterling M3.

The excessive growth rate of sterling M3 could not all be explained by the unwinding of the corset, however. On October 27, 1980, the Chancellor announced that the underlying growth rate of sterling M3 was 18 percent to 19 percent and recognized that the excessive growth rate of the money supply during the summer months could not all be attributed to the ending of the corset. This suggested more basic problems with control of the growth rate of the money supply. The main methods of control, interest rates and the PSBR, were proving inadequate. High interest rates were not slowing the demand for credit by the private sector and the government had failed to contain the PSBR to targeted levels.

The Medium-Term Financial Strategy projected a PSBR of £8.5 billion for the full 1980–81 financial year. It rapidly became apparent that the PSBR would be greater than desired. In the first quarter of

[24] Bank of England Quarterly Bulletin, September 1980, p. 264.

the financial year, it was almost £4.5 billion, more than half of the £8.5 billion annual projection. After 6 months, it had reached nearly £8 billion. On November 24, 1980, the Chancellor of the Exchequer announced that the PSBR in 1980–81 would amount to £11.5 billion, or £3 billion more than targeted. No new forecast for the PSBR in 1981–82 was made. The Chancellor, however, reiterated the government's commitment to the Medium Term Financial Strategy.

The PSBR is difficult to forecast or control closely. It depends on not only the fiscal stance of the government, but also on the levels of inflation and economic activity. The PSBR is not a control variable, but instead an endogenous quantity that depends on the interaction of the government's policies and the state of the economy. The current government's inability to hold down the PSBR partly reflects these problems. For example, social security payments, along with other types of expenditures, depend on the level of economic activity and have been larger than projected because of the stronger-than-expected recession. The decreased demand and increased unemployment have also decreased government revenues from taxes and national insurance contributions.

It has been estimated that each unemployed worker adds £5,000 to the PSBR. The recession has also increased the nationalized industries' deficits. For the first 6 months of the financial year, the nationalized industries' borrowing requirement was almost £2.2 billion compared to the government's forecast of only £1.4 billion for the entire year. In addition to the above, large public-sector pay settlements have contributed to the PSBR overshoot. A final contributing factor was higher-than-expected defense spending in the first months of the year.

In anticipation of the PSBR overshoot, the Cabinet conducted several public expenditure reviews. One such review was undertaken in October and November 1980. Aiming to keep expenditure in 1981 to 1982 near the level proposed in the expenditure White Paper of March 1980, the Treasury recommended public spending cuts of £2 billion for 1981 to 1982. The Treasury, however, met much resistance in the Cabinet and the November 1980 actions announced by the Chancellor of the Exchequer called for tax increases of £2 billion and curbs on public expenditure of £1 billion to offset the pressures on the PSBR in 1981 to 1982. The effects of these actions on the PSBR will be nearer £2 billion, allowing for the effects of the added deflation which these fiscal measures will induce.

The tax increases include an increase in employees' National Insurance Contributions. National Insurance Contributions, paid by employees, employers, and the self-employed are paid into the National Insurance Fund, from which expenditures on most contributory social security benefits are made. The recent changes have increased contributions on earnings between £27 and £200 per week from 6¾ percent to 7¾ percent. This can be seen as a partial reversal of the income tax cuts instituted in June 1979. The increased contributions are expected to meet the anticipated increased costs of unemployment benefits and the Treasury's announced cut in the supplement to the National Insurance Fund.

The Chancellor also called for a supplementary tax to be paid by the oil companies, in addition to the Petroleum Revenue Tax, to start next year. It will be charged at a single rate, around 20 percent, of

gross revenue on oil and gas production, subject to an allowance. The new tax will also be deductible from PRT and corporation tax. It will be applicable to all fields in production, irrespective of whether they currently pay PRT. The PRT is only applicable after capital expenditures have been recovered plus a 30 percent return on capital. Therefore, the new tax will particularly affect fields in the early stages of development. The increased National Insurance Contributions and the new oil tax are both expected to yield approximately £1 billion in 1981 to 1982.

The Chancellor announced that some expenditure increases were expected as a result of the recession. To offset these increases, cuts in the plans for the majority of spending programs were to be undertaken. Planned increases in expenditure that have been announced include increases in the external financing limits of the nationalized industries amounting to £620 million, and expenditures designed to support employment of £245 million. Planned decreases in expenditure include a decrease of £200 million in defense expenditure. Local authority current expenditure is to be reduced by 3 percent instead of 2 percent compared with the plans for 1980 to 1981. Finally, the uprating for social security benefits for 1981 is to be decreased 1 percentage point.

The aim of all these changes is to cut the volume of public expenditure in 1981–82 to 1 percent below the volume expected for this year. Given the overshoot expected for 1981–82, this implies an increase of 1¾ percent over original projections for 1981–82. The implications for the PSBR in 1981–82 are unclear. Although the Chancellor has said that the PSBR should be "consistent with the strategy and need to ease the burden of adjustment at present falling on industry," it is likely to be in excess of original projections included in the MTFS.

The government has also been relying on high interest rates to constrain the growth rate of sterling M3. The MLR was increased to 17 percent in November 1979, reduced to 16 percent in June 1980, and kept there until November 24, 1980. At that time it was reduced 2 percentage points to 14 percent. High interest rates had failed to decrease demand for credit by the private sector and there were pressures on the government to bring down interest rates. Bank lending in sterling to companies and persons increased 20 percent in the year to June 1980. Sterling bank lending to the private sector for the 1979–80 financial year averaged £750 million a month, compared to £500 million for the previous year. Lending to companies has in particular accelerated. In the 6 months to March 1980, bank lending to companies increased at an annual rate of 23 percent.

The financial deficits of the company sector have increased the need to borrow, despite falling stocks. The deepening recession, the high exchange rate and the associated profits, and liquidity squeeze have increased distress borrowing. In addition, increased interest payments are borrowed and have contributed directly to increased bank lending. Finally, low profits and high, long-term nominal interest rates have made companies reluctant or unable to raise money on the capital market, further contributing to increased bank lending to the private sector.

The recent decrease in the MLR, from 16 percent to 14 percent, reflects the government's desire not to rely excessively on interest rates,

but to bring down the PSBR to control sterling M3. The decision to cut the MLR is in anticipation of a slowdown both in bank lending and in the growth rate of the monetary aggregates as a result of the increasing recession. The Bank of England announced that given expectations about a slowdown in monetary growth and the government's newly announced fiscal policies, "it has been decided that nominal short-term interest rates can now be moderately reduced without undermining the firm monetary discipline that policy must continue to exert."

In addition, since high interest rates had not successfully restrained bank lending in the past year, it was perhaps hoped that lower interest rates would at least not lead to further increases. The government has been under pressure to decrease interest rates from many directions, including such groups as the Confederation of British Industry, which had called for a 4 percentage point decrease in the MLR a month earlier. The decrease in the MLR along with the plans for the PSBR reflect the government's desire and political need to lighten the burden of its policies on the private sector.

Associated with the high interest rates and large PSBR have been large official sales of gilt-edged stocks. These large sales of gilts resulted in higher than otherwise long-term interest rates. In addition, the high debt sales combined with continuing high bank lending to the private sector put pressure on the reserve asset position of the banking system. In response, the authorities throughout the period have provided assistance to prevent large fluctuations in interest rates. The Bank purchased, on a large scale, Treasury, local authority, and commercial bills and also lent at MLR both overnight and less frequently for longer periods. The Bank also entered into purchase and resale agreements for gilt-edged stocks initially with the clearing banks and then with all listed banks and deposit-taking finance houses. This facility was supplemented by a similar facility for over 2-year government guaranteed export credit and shipbuilding paper.

There have been discussions about financing the public-sector deficit more directly by tapping personal savings. The large company-sector deficits have been matched by large personal savings. Steps to enable the government to finance the PSBR with less reliance on the sale of gilt-edged stocks would allow lower interest rates without jeopardizing control of the money supply. This, in addition, might help promote the revival of the capital market, which would decrease the company-sector's reliance on sources of finance, specifically bank lending which directly contributes to the money supply. Toward this end, the availability of index-linked national savings certificates and the Save-As-You-Earn scheme have been increased. Chancellor Howe announced on November 24, 1980, that he would be taking "further steps to mobilize directly a larger share of personal savings" and "in particular, extend the eligibility for index-linked certificates so as to attract a total of not less than £3 billion of new money into national savings next year."

Summarizing, the government has not successfully controlled either the growth rate of the money supply or the PSBR. In addition, high interest rates have not effectively limited the growth of bank lending. In response, the government has undertaken policies to regain control of the PSBR as a means of slowing the growth rate of sterling

M3. In addition, the government would like to decrease its reliance on the sale of gilt-edged stocks.

During the Conservative government's first year in office, both earnings and inflation increased. More recently, however, there has been some evidence that the government is having relatively more success in these areas. In the 1979–80 pay round, average earnings rose by 22 percent compared to about 16 percent for the 1978–79 wage round. Earnings rose much more rapidly in the public sector than in the private sector. Within the public sector, earnings increased more rapidly in sectors that had been referred to the Standing Commission on Pay Comparability (the Clegg Commission). These sectors included public administration and services as opposed to the public corporations. In total, approximately 2½ million employees were referred to the Clegg Commission and awards were generally accepted in full.

There were also separate comparability studies for other public-sector employees including doctors, dentists, and some local authority workers. The Bank of England has estimated that these awards together have probably added 6½ percentage points to earnings in the public sector and 2 percentage points to earnings in the whole economy. On August 4, 1980, the Clegg Commission was abolished in the interest of bringing down public-sector pay settlements.

Earnings rose less rapidly in the private sector than in the public sector. Within the private sector, earnings in manufacturing were most restrained but still increased at an annual rate of 17½ percent. Even the competitive pressures of relatively greater cost increases and the high value of sterling did not seem to slow wage settlements substantially. After 1 year, therefore, there was little evidence of an "expectations effect" of the government's money supply targets on wage settlements in either the private or public sectors. There appears to have been little reason to expect such an effect in the public sector, so long as awards were being referred to a comparability commission.

There is some evidence that the 1980–81 pay round will be lower than 1979–80. In particular, competitive pressures have had some restraining effect on wage settlements in the tradeable goods sector. In the public sector, the end of comparability awards should contribute toward decreased wage settlements. In addition, in November 1980 the government announced its intentions to hold down pay increases for local authority workers to 6 percent. The 6 percent limit is to be enforced by a strict cash limit, although it is not clear to what extent pay increases in excess of 6 percent can be offset against reductions in other expenditures within the total local authority cash limits. In the past, specific cash limits on the pay element alone have not been used. It is expected that some similar provisions will be applied to the public sector in general. The government would like public sector pay to be in line with the target growth rate of the money supply of 6 to 10 percent for 1981–82.

Inflation as well as wage settlements accelerated during the government's first year in office. Again, more recently, there has been some evidence that inflation is slowing. The year-on-year increase in retail prices was almost 22 percent to May 1980, whereas, in the 1978–79 financial year under Mr. Callaghan, the retail price index increased by 10.1 percent at an annual rate. Much of the increase to May 1980

is accounted for by special factors. Oil prices increased sharply in 1979 and contributed approximately 3 to 4 percentage points to the Retail Price Index (RPI). The June 1979 budget increased VAT to 15 percent to replace the revenue lost from decreased income taxes. This added another 3 to 4 percentage points to the RPI. Finally, increased mortgage rates added a further percentage point.

In addition to these special factors, the underlying rate of inflation increased. Increased wage settlements during the period may have contributed to this. The high inflation that resulted during the government's first year both complicated the task of monetary control and implied that the government's policy would be more restrictive in the short run.

By August 1980, the year-on-year increase in retail prices fell to 16¼ percent. This fall largely resulted from the effects of the indirect tax increases in the June 1979 budget dropping out of the index. Monthly increases, however, had also lessened. Over the 6 months to December 1980, retail prices only increased 4.3 percent.

Such reductions of inflation as have occurred appear to be the effect of the government's monetary policies on aggregate demand and on the exchange rate. The high level of the exchange rate can partly be explained by the high interest rates associated with the government's monetary policy. The exchange rate in turn affects inflation directly through decreased import prices, and through strong competitive pressure on the traded goods sector. The competitiveness of British manufactured goods decreased 22 percent in 1980, with about 60 percent of this attributable to the increase in the sterling exchange rate.

Surprisingly, so far, export volumes have held up. They are expected to fall in the coming months, however, because volume has been maintained at the expense of profits. Changes in the profitability of the traded goods sector and in traded goods prices will also indirectly affect inflation through wage settlements.

The level of aggregate demand has been affected not only by the exchange rate, but also by the high interest rates and the tightening of fiscal policy designed to decrease the growth rate of the money supply. This year the Treasury has forecast a drop in total output of 3 percent, with as much as a 10 percent drop in manufacturing production. This fall in aggregate demand should contribute to a slowing of inflation.

It is not clear to what extent the government's policies have affected inflation through price expectations and wage settlements. Wage settlements have exceeded the RPI, suggesting that the larger effect has been in response to the exchange rate and the level of aggregate demand. Since the money supply has been growing at a rate outside the 7 to 11 percent target range, it is doubtful that there should be any "expectations effect" on wage settlements and consequently on inflation.

Interpretations and Alternatives

Too Many Commitments?

One interpretation of the Conservative government's inability to carry out its economic policy program in the first 18 months in office—an interpretation advanced by some who are sympathetic to the gov-

ernment's economic and political objectives—is that the Thatcher government came to power with too many objectives. Mrs. Thatcher was committed to cutting inflation, reducing government spending and borrowing, decreasing personal taxation, and to increasing defense expenditures. In addition to these commitments, the government adopted a monetary policy which was presented in an inflexible form.

Targets for the growth rate of sterling M3 were set, along with projections for the PSBR, which were announced to be the centerpiece of the government's economic policies. The strong commitment to these monetary policies was made in the belief that this would have beneficial effects on expectations which would lower the cost of the policy in terms of lost output and unemployment. It is not clear, however, that the government's monetary policies were initially consistent with its other commitments at a tolerable shortrun cost to the economy. After several unanticipated events, including the increase in oil prices and the level of public-sector pay settlements, the inconsistency of the government's policies became inescapable.

This argument implies that the authorities are constrained by the real short-run effects of their policies. Although the government has argued that the level of unemployment should not be a policy objective, all concern about employment has not been abandoned. Indeed, the fact that a gradual rather than an immediate reduction in the money supply is being sought reflects the recognition that tight monetary policy has effects on unemployment and that these effects are undesirable. This explanation, then, of the government's inability to control the money supply is that the costs in terms of the real short-run effects on the economy of attaining simultaneously all of the government's objectives were too high. Given this conflict, the objective that was sacrificed was the money supply target.

An example of the conflict that arose between the government's objectives was its commitment to decrease inflation by holding down the growth rate of sterling M3 and the PSBR, while at the same time decreasing personal taxes. To make up for the lost revenues, VAT was increased from the standard rate of 8 percent and the higher rate of 12½ percent to 15 percent. The increase in indirect taxes in the June 1979 budget added about 3 percent to the RPI. Wage settlements were directly affected by the increase in the RPI: the year-on-year pay increase in pay settlements during the 1979–80 pay round varied between 15¾ percent and 22 percent. The consequent increase in inflation combined with the government's fixed money supply targets to imply sharply restrictive effects on the economy in the short run.

The government's commitment to lower inflation and its decision to refer claims to the Clegg Commission also proved inconsistent. Comparability awards in the public sector are estimated to have contributed 6½ percent to earnings in the public sector and 2 percent to earnings in the entire economy. The Retail Price Index, in turn, was directly affected by this increase in wages. Like the VAT increases, the inflationary results of these accords implied harsher effects on the economy from the government's fixed money supply targets.

The increase in public-sector pay also made the PSBR projections more difficult to achieve. This resulted in excessive reliance on interest rates to control the growth of money, despite commitments to the con-

trary in the "medium term financial strategy." This meant that the impact of the Government's restrictive policy was mainly on the private sector, despite government statements about the importance of promoting the private sector and restricting the public.

The majority of the changes in policy announced in November 1980 reconfirm the government's primary commitment to its monetary policy program and suggest that the government perceived the above interpretation as part of its problem. The changes attempt to reduce the pressures of conflicting objectives which had previously contributed to the government's inability to attain its monetary targets. The Chancellor of the Exchequer announced that the policy changes were designed to ensure that "the thrust of the Medium Term Financing Strategy is maintained" and to "leave no room for doubt about the determination to control public-sector borrowing so as to lighten the burden on the private sector."

The fiscal actions taken for 1981–82 aim at offsetting upward pressure on the PSBR. As previously mentioned, tax increases of £2 billion and cuts in public expenditure of £1 billion were announced. The rise in the employees' national insurance contributions is equivalent to an increase in income taxes and can be interpreted as a reversal of earlier commitments and attempts to reduce personal taxation. The spending cuts consist of cuts in a wide variety of programs and a squeeze on public-sector pay. Although an official incomes policy has not been adopted, it has been realized that pay in the public sector cannot be ignored.

It remains to be seen whether these changes in policy will permit the government to meet its monetary targets more successfully. According to the above interpretation, the government's inability to meet its monetary objectives resulted from commitments to other policies which meant that the costs of hitting the money supply targets in terms of the short-run effects on the economy were politically unacceptable. The implications are that the instruments available and currently used by the government are sufficient for control of the monetary aggregates, and that these instruments simply will not be used if the political costs of the results are too high. Not all observers accept these implications.

Monetary Base Control

A second group of critics—like the first, by and large sympathetic to the goals of the government—argues that the government's inability to control the money supply has resulted not from incompatible policies but from ineffective instruments. In particular, it is argued that attempts to control the money supply by manipulating interest rates are inherently wrongheaded. This line of argument leads to proposals to control the monetary base directly. Given that the appropriate intermediate policy target is the money supply, however calculated, and not interest rates or credit market conditions, the argument is that the money supply objective can be realized most successfully through a short-term variable which is easier to control than the money supply itself.

The short-term target variable would be set at a level that is considered by the authorities to be consistent with the medium-term money

supply target. This is what the authorities do already, using interest rates as the short-run central variable to achieve their medium-term money supply targets. Monetary base control supporters simply argue that the monetary base should be used instead.

The term "monetary base," frequently referred to as "high-powered money," refers to those assets which can be used as cash reserves by the banking system. It generally includes banks' reserves with the central bank plus notes and coins in circulation with the general public. Advocates of monetary base control seek to control the money stock by exploiting a stable relationship between the base and the money supply. This approach to control the money supply relies on a simple money multiplier model, which posits that there is a relationship between the monetary base and the money supply of the form—

(1) $M=mB$

where:

M = the money supply
B = the monetary base
m = the money multiplier

An equation for the multiplier, m, can be derived from the following indentities:

(2) $M=C+D$
(3) $B=R+C$

where:

C = currency in circulation with the public
R = banks' reserves
D = the deposits of the banks

The money supply is the sum of currency in circulation and deposits and the monetary base is the sum of reserves and currency in circulation. By manipulating these two identities, the money supply can be expressed in terms of the monetary base:

$$(4)\ M=\frac{\left(1+\frac{C}{D}\right)}{\left(\frac{R}{D}+\frac{C}{D}\right)}*B$$

so that the money multiplier, m, can be represented by:

$$(5)\ m=\frac{M}{B}=\frac{\left(1+\frac{C}{D}\right)}{\left(\frac{R}{D}+\frac{C}{D}\right)}$$

If m is stable or if its evolution is well-understood, the money supply can be controlled by controlling the monetary base. In this case, short-term interest rates become endogenous.

The authorities' Green Paper on Monetary Control discussed two types of monetary base schemes:

> The authorities . . . either: (*a*) control the amount of base money in existence and so the total growth of the money supply, since the banks' balance sheets

cannot exceed a specified multiple of the base; or (*b*) use divergences of the base money figure from the desired trend as a trigger for a change in interest rates intended to correct the divergence.[25]

The latter suggestion has been referred to as a "monetary base indicator system." Under such a system, reserves would be mandatory and lender-of-last-resort facilities would be available. The path of the base consistent with the desired growth rate of the target variable, sterling M3 or another monetary aggregate, would be calculated. If the monetary base were off target, the Bank of England would adjust its lending rate, either according to a scale set in advance or at the discretion of the authorities. It is argued that such a system would guarantee more rapid and automatic movements in interest rates, compared to the present discretionary system, in response to information that the money supply is off target. This scheme is more accurately characterized as having short-term control techniques which rely on interest rates.

Although it would use deviations of the monetary base from some target path as a trigger mechanism, direct control of the monetary base by the authorities would not be sought. Instead, interest rate changes and the relationship beween interest rates and the demand for money would be used to control the growth rate of the money supply. The actual form of the trigger mechanism of deviations of actual from desired targets would determine how closely this system would resemble other alternatives. The Green Paper argued that "it would be desirable that there should be a power for the authorities to override automatic interest rate changes." It is not clear, in short, to what extent an automatic system with such an override would differ from the current system.

Direct monetary base control arrangements, in contrast, would seek to control the amount of base in existence directly and through it the total growth of the money supply. Under such schemes, interest rate changes are determined in the market. Therefore, the problems of determining the appropriate speed and size of interest rate changes for monetary control are avoided. Various types of monetary base control have been suggested, including some with and others without mandatory reserve requirements. A monetary base scheme without a mandatory reserve requirement would rely on a stable demand by the banks for base assets relative to total liabilities.

However, there are reasons to expect this relationship not to be stable. The banks' transactions demand for cash balances would depend as much on the type of business on and the level and variability of transactions as on total liabilities. The cash balances held for liquidity purposes would depend on the lender-of-last-resort facility, which currently makes a variety of assets primary liquidity. If the lender-of-last-resort facility was changed so that the authorities only intervened in a crisis to supply cash reserves, banks' balances with the Bank of England would become the only form of primary liquidity. But even in this case, it is not clear that banks' liquidity demand would be stable enough to improve control of the money supply. The Green

[25] Monetary Control. Joint consultative document by the Treasury and the Bank of England, Cmd 7858, March 1980, p. 8. (Hereinafter, The Green Paper on Monetary Control.)

Paper on Monetary Control has the following to say about a non-mandatory system:

> Thus, a scheme not based on a mandatory requirement would first require substantial changes in the structure of the money markets and it would be a period of several years before it could be established if there was any predictable relationship between the base and the money supply. Even then, it would be far from certain that it would generate a steadier path for the growth of the money stock than now.[26]

A move to monetary base control would, therefore, probably involve a mandatory reserve requirement. Options for a mandatory requirement include:

> (*a*) Lagged accounting—as in the United States—where current base requirements are fixed by reference to deposits in a previous period;
> (*b*) Current accounting—as with the Reserve Assets Requirement—where required base assets relate to the same make-up date as the relevant deposits; and
> (*c*) Lead accounting—where the holding of base assets would put a limit on deposits at some future date.[27]

Under lead accounting, banks would have to predict future liabilities to determine the desired base today, and then try to control liabilities to achieve the forecasted level. Banks might have trouble doing this due to the existence of overdraft facilities and to the public sector's varying financial position, both of which affect the money supply. There would have to be some penalty on insufficient and excessive holdings to provide the incentive for banks to make correct forecasts. Under this system, if the quantity of reserve assets were controlled by the authorities, an increase in demand for the base beyond that desired by the authorities, indicating an expected increase in liabilities, would lead to an increase in interest rates.

Lagged accounting implies that the required base on any day would be predetermined by the level of deposits held in the past. If the required base differs from that desired by the authorities, changes are not possible until the next time period. If there are inadequate base assets available, the banks do not have the option of adjusting liabilities accordingly. Therefore, it is necessary either:

> (*a*) For the authorities to provide the additional base assets to enable the banks to meet the mandatory requirement; or
> (*b*) To modify the requirement so that it is not absolute, and to require that those banks not meeting it pay a penalty instead, as with the SSD scheme now.[28]

Similar problems would arise with a system of current accounting because banks would not have adequate time to adjust liabilities if base assets were insufficient.

Under these systems, the authorities could attempt to control the base over time by changing the interest rate charged for borrowing from the Bank of England in case (*a*) or for penalties in case (*b*). These procedures would move in the direction of the monetary base indicator system discussed above by relying on interest rates to affect the base through liabilities, rather than on direct control of the monetary base and thereby the money supply.

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[26] The Green Paper on Monetary Control, p. 8.
[27] Ibid., p. 10.
[28] The Green Paper on Monetary Control, p. 24.

There are several general problems that could arise with these systems of monetary base control. Under systems which act to control the money supply through the monetary base, a changing money or deposits multiplier can present problems. As equation (5) above shows, if either the ratio of currency to deposits or reserve to deposits changes, the money multiplier will vary.

For example, if banks held excess reserves, the relationship between total reserves and the money stock would change in response to a change in the banks' precautionary holdings of excess base. If the supply of reserves were increased through open market operations and the banks increased their holdings of excess reserves, the money supply would not increase accordingly. Similarly, if the monetary base control technique included the possibility of borrowing reserves from the Bank of England, changes in reserves through open market operations would not necessarily lead to predictable changes in the money supply.

The banks could use the increased reserves to repay borrowings at the central bank instead of buying assets, in which case the money supply would not increase. If there existed different reserve requirements on different types of deposits, further complications would arise for predicting the money supply function. Movement of funds between deposits or banks subject to different reserve requirements would also cause changes in the relationship between the base and total deposits.

Disintermediation would also be a problem. For example, under a lead accounting system, if the level of deposits were underpredicted by the banks and there existed a penalty for inadequate reserve assets, there would be an incentive to conduct the excess business over that level for which there were sufficient reserve assets in forms which did not require reserves. The "bill leak" which arose under the SSD scheme would be likely to reappear. Similarly, if there were penalties on excess reserves, overprediction of deposits by the banks might lead to reintermediation. Under a lagged accounting system, the existence of penalties would also promote disintermediation. In general, if reserves at the Bank of England do not bear interest, there would be an incentive to conduct business through channels on which there did not exist a reserve requirement.

It has been suggested that the choice between a reserve or interest rate short-run operating target should depend on whether the relationship between interest rates and the demand for deposits is more or less stable than the relationship between bank reserves and the level of deposit liabilities. The more stable and predictable the relationship between the short-run target and the monetary objective, the more successful will be the targets' use in obtaining the objective. Those in favor of the monetary base control system argue that the relationship between interest rates and deposits is complex and not predictable in the short term.

In particular, bank lending in the United Kingdom to the private sector is insensitive in the short run to interest rate changes. If an interest rate target is in effect, and there is an unexpected change in money demand, this short-run target will result in an accommodating change in the supply of money. Whether this is desirable or not depends on the nature of the shift in money demand.

Given these uncertainties in the relationship between interest rates and demand for deposits, supporters of monetary base control argue that the ratio between banks' reserves and deposits should be used to control the money supply. For reasons mentioned above, however, the "money multiplier" can also be expected to be uncertain. Compared to an interest rate target, a reserves target performs badly if there is a shift in the relationship between the base and the money supply.

The choice between short-run operating techniques, therefore, comes down to empirical findings about the relative stability of the two relationships. While both interest rate and reserve targets have problems when the hypothesized relationships shift, the targets *can* be changed to adjust to these shifts. The question of which is the better instrument is finally decided, therefore, by which minimizes the variance around the money supply target, since such short-run variance is considered costly.

Two other arguments for preferring a reserve instrument deserve comment. First, it has been argued that if the operating instruments are used cautiously, then the choice of operating instrument commits one to a particular intermediate target [29] rather than the two decisions being independent as is usually assumed. Given cautious control, for example, of an interest rate target, the target will not be changed adequately to achieve a money supply target. As a result, an interest rate target will result in behavior that resembles an interest rate intermediate target policy.

And there are reasons why cautious behavior is likely. There are likely to be lags which are difficult to estimate between changes in an instrument and change in the intermediate target. This makes adjustment in the operating instrument problematic, as the choice of time framework becomes important. Therefore, given cautious behavior, a reserves operating instrument is more likely to result in the attainment of an intermediate monetary aggregate target.

A second, closely related argument is that, under an interest rates policy, the short-term operating instrument will not be changed adequately to achieve a monetary aggregate target because interest rate changes inherently have political implications. This will prevent a short-term interest policy from being used effectively. Monetary base control is more likely to be successful because it lessens governmental discretion in interest rate determination. Because of this, the appropriate interest rate for control of the monetary aggregate is more likely to be achieved. By making the interest rate the result of other policy actions, specifically changes in reserves rather than the operating instrument, interest rate changes are to be neutralized politically.

It can be argued, however, that there is no reason why the authorities would be more willing to tolerate high interest rates under a monetary base system than they are under the current system. That the authorities in the Green Paper on Monetary Control argued in favor of a monetary base indicator system with override suggests that they wish to retain control over interest rates. In addition, the policy

[29] Judd, John P., and Scadding, John L. "Conducting Effective Monetary Policy: The Role of Operating Instruments," Federal Reserve Bank of San Francisco. Economic Review, fall 1979, pp. 23–37.

changes of November 1980 reduced the MLR by 2 percentage points in response to political pressures, even while the Chancellor was discussing moves towards greater reliance on the market in determining interest rates. As mentioned in the Treasury and Civil Service Committee's report on Monetary Control,[30] the choice between an interest rate target and a reserves target is a question not only of the effectiveness of each technique but of the acceptability of their consequences.

Some have also proposed that the monetary base should be not merely the means to the end of control over the money supply, but the intermediate objective or target of monetary policy itself. Those in favor of using the monetary base argue that it is a better leading indicator of such basic goals as nominal GNP or prices, than alternative monetary aggregates. Those against the use of the monetary base as an intermediate target argue that the relationship between the monetary base and the ultimate objectives is not as stable as the relationship between these objectives and other monetary aggregates.

For example, if banks' demand for excess reserves changed, the growth rate of banks' reserves would not be a good indicator of the relative tightness or ease of monetary policy. Of course, this does not mean that monetary base control cannot be used effectively as a short-term operating instrument, since the short-term operating target could be changed to offset such shifts in demand.

No decision as yet has been reached in the United Kingdom on the desirability of moving to monetary base control, either mandatory or nonmandatory. In November 1980, the Chancellor of the Exchequer announced a number of changes that will enable more to be learned about a monetary base system, and that would be consistent with movement to some form of monetary base control if it eventually is considered desirable. Discussions between the banks and the Bank of England are to be carried out on three sets of issues. The first concerns the requirements for banks' liquidity after the RAR is abolished. The second is the future of the 1½ percent cash ratio which currently applies only to the London clearing banks.

Related to this, the Bank will monitor the demand for cash balances at the Bank of England. This will help determine the feasibility of a nonmandatory system of monetary base control. Finally, consideration is to be given to a mechanism to collect statistics on retail deposits, which could be the denominator of a monetary base system. These moves are "considered consistent with a gradual evolution towards a monetary base system," and will help the authorities decide how far such a system would contribute towards their monetary objectives.

The Bank of England confirmed that the discount market would continue to play an intermediate role between the Bank and the banking sector if any monetary base control system were adopted. It also announced that it would change its methods of intervention in the market, placing greater emphasis on open market operations and less on the lender-of-last resort facility, so as to increase the role of the market in determining short-term interest rates.

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[30] House of Commons, third report from the Treasury and Civil Service Committee, Session 1979–80. Monetary Control, vol. I, report, July 22, 1980.

These moves are all consistent with a move to monetary base control, but as yet no radical changes have been undertaken. This reflects the decision that the best time to make changes in the system of monetary control is not when the monetary aggregates are growing at about twice the desired rate.

Nonmonetarist Alternatives

Nonmonetarist alternatives to the current government's economic policy package have also been proposed. As a first step, these proposals criticize the overriding priority given to the reduction of inflation. That the government considers the costs of inflation to be great is clear.

> In the long run, it is only by conquering inflation that sustained growth can be achieved.[31]

What is not clear is whether this is consistent with the monetarist theories underlying the government's policies. If an increase in the growth rate of the money supply is reflected only in increased inflation and has no real effects, why should the reversal of this process lead to greater output and employment in the longer term? [32]

The government also argues that the short-run consequences of its policies on real economic activity need not adversely affect the growth potential of the economy over the longer run. The economy is seen as self-stabilizing and tending to full employment with non-inflationary growth. Improvement in the poor growth and productivity performance in the United Kingdom can only be sought, therefore, by improving the supply side of the economy, and such improvement is independent of the macroeconomic policies adopted. In particular, the expansion of aggregate demand can only have short-run effects on economic activity. By discounting the short-term effects of the government's policies on real variables, the "overriding priority" given to inflation is indirectly validated. This line of argument has been criticized by those in favor of nonmonetarist alternatives on several grounds.

First, the effects of the policies on real economic activity in the short term can affect the longer run potential of the economy by lowering investment and therefore the future available capital stock. Similarly, unemployment today may affect the quality of the labor stock available in future periods and thereby the long-run potential of the economy. Professor James Tobin discussed this issue in evidence taken before the Treasury and Civil Service Committee.

> I can imagine that you return to a state of normal growth of real output—whatever that is, whatever sustainable growth of real output the economy is capable of, 1 percent, 2 percent a year—but at a lower level at which there is less capital and more unemployment so that you never have a period of recovery of higher growth that occurs, you never make up fully for the period of lower than normal growth that is occurring now. So you must distinguish between whether you are going to get back to a track which reverses the losses due to this transition or whether you just get back to a track which has the same slope, the same kind of upward growth, but is at a lower level than would have been otherwise.[33]

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[31] Memorandum by HM Treasury. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720, p. 13.

[32] Memorandum by Professor F. Hahn, Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720.

[33] Monetary Policy. Minutes of Evidence. Professor James Tobin. House of Commons, Treasury and Civil Service Committee, Session 1979–80, 679–vii, p. 212.

The government's position on the short-run effects of its policies is also criticized on the ground that whatever the implications of the policies for the long-run potential of the economy, the effects of these policies in the short run on unemployment and output are real costs that must be balanced against the gains in terms of reduced inflation over future periods. If so, a policy of fixed targets for the growth rate of the money supply at all costs becomes inappropriate. If the economy is subjected to unexpected exogenous shocks, such as an increase in the price of oil or an increase in prices due to a change in VAT, the money supply targets, even if initially optimal, will no longer be so in terms of the relevant tradeoff between the costs of lost output and employment and the benefits of reduced inflation.

Then there is the issue of whether the economy will automatically recover after a deflationary policy and whether anything prevents a revival of inflation at that time. Critics of the government argue that recovery will be slow, if it happens at all, and that the benefits gained in terms of decreased inflation are unlikely to last.

The government's espousal of an "expectations effect" of its money supply targets on wage settlements based on "rational expectations" models of the economy has also come under attack. Rational expectations models, in general, and their application to the United Kingdom's economy in particular, have been criticized on the ground that, contrary to prediction, it is not necessarily irrational for wage earners to negotiate for wage settlements in excess of the money supply targets.

The rational expectations models assume an aggregate wage equation in which price expectations depend on the growth rate of the money supply. Individual wage bargainers' behavior makes such an aggregate equation inappropriate. Individuals will expect prices to follow money supply targets only if they expect other workers to moderate wage demands in line with money supply targets as well. In the absence of wage and price policies, there is no reason to expect wage bargainers to behave in this way. If they do not, the costs of the government's policies in terms of unemployment and lost output will be greater.

The government's "hands-off" policy toward the exchange rate is a final aspect of Mrs. Thatcher's economic program which is frequently criticized. The authorities' position is that the exchange rate should be allowed to float freely, given the monetary policy adopted by the government. The practical effect has been a dramatic appreciation of the exchange rate. The higher exchange rate may have beneficial effects on domestic inflation by decreasing the price of imports, putting pressure on the traded goods sector to price competitively, and indirectly by moderating wage demands. There may also be a temporary loss of competitiveness if prices and wages do not moderate, and this the government has recognized. In the longer term, however, the government assumes that the level of the exchange rate will have no effect on either competitiveness or unemployment. Critics of the government's policies question this, and have proposed a very different exchange rate policy.

The alternative strategies proposed by nonmonetarist critics of the government range from some which favor actual reflation in the short term, to others which see a need for deflationary policies, but not of the

type adopted by the current government. Both schools give high priority to reducing inflation, but not "overriding" priority.

The deflationist critics of the government consider the monetary targets included in the Medium Term Financial Strategy excessively rigid; they propose more flexible deflationary policies. The authorities recognize that existing policies are inflexible, but they argue that a strong and flexible commitment to monetary targets increases the likelihood that "expectations and behavior will respond favorably." [34] Critics argue that since there is little evidence that the expectations effect works, the costs of such inflexibility are excessive. Fixed monetary targets remove both the level of aggregate demand and the monetary-fiscal mix from government control and prevent the government from responding to unexpected changes in the economic environment.

Those who argue in favor of less rigid deflationary policies believe that the benefits of decreased inflation must be weighed against the real costs to the economy. Therefore, it is inappropriate to have fixed targets for the money supply and the PSBR independent of the state of the economy. If one adopts such rigid targets, the level of aggregate demand becomes a residual. For example, if the PSBR overshoots its target because of a larger-than-expected recession, keeping the PSBR on target would make the recession worse. If the initial policies were optimal in terms of some tradeoff between costs and benefits, they will no longer be so after the larger-than-expected recession; the fixed targets constrain the authorities from responding to unanticipated events.

If the growth rate of the money supply is fixed, but the PSBR is free to vary, it is possible to achieve a desired level of aggregate demand, but the monetary-fiscal mix is now constrained. For example, if the exchange rate appreciates in response to the government's monetary policy in addition to other events, such as an increase in the price of oil, and the appreciation is considered to have excessive effects on the real economy, fixed money supply targets imply that the only policy response available is a change in the PSBR. The more desirable policy might, however, consist of relaxed monetary targets to decrease both interest rates and the exchange rate, and a more restrictive fiscal policy.

The alternative proposed, therefore, is to follow a disinflationary policy but not to constrain policy by adopting rigid targets for the growth rate of the money supply. As an alternative, Professor Tobin has proposed setting targets in terms of nominal GNP or setting two target bands for the rate of inflation and the rate of real growth. The latter would give the authorities a notionally rectangular area within which to work, increasing flexibility. In either case, it would be possible to vary the monetary-fiscal mix if considered desirable and the authorities would have greater freedom to respond to unanticipated events.

This alternative strategy is often combined with proposals for an incomes policy. This reflects both disbelief in the "expectations effects" or any quick response of wage behavior to disinflation and belief that

[34] Memorandum by the Bank of England. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720.

the effects of disinflation on the real economy are costs that should be minimized if possible. Since it is not clear that the wage-setting structure responds adequately to deflationary policy, the costs of deflation in terms of lost output, employment, and investment could be high, particularly if the general expectation of lasting success against inflation is not strong.

An incomes policy would be a means of communicating the policies of the authorities to the labor market, on whose behavior the costs of the policy depends. If the problem is that the labor market is disaggregated and that it is not rational for individuals to lower wage demands given uncertainty about other people's behavior, an incomes policy has a role to play as a complement, not a substitute, for aggregate demand management policy.

Those in favor of reflation rather than deflation as an alternative policy strategy criticize the current government's policies in similar terms. Restrictive aggregate demand, however, is rejected as either ineffective at reducing inflation or actually counterproductive. The National Institute of Economic and Social Research, the Trades Union Congress (TUC), and the Cambridge Economic Policy Group (CEPG) have all argued in favor of this alternative policy strategy. Their proposals differ primarily with respect to the exchange rate. The National Institute argues in favor of devaluation while the CEPG believes that import controls are necessary to protect British production.

The National Institute proposes a policy of mild reflation combined with an "incomes policy or general reform of the system of wage bargaining." [35] The current government's "abrogation of the final objectives of economic policy" is rejected and instead the government is urged to adopt policies aimed at the real objectives of employment and growth along with the reduction in the rate of inflation. The recognition of multiple objectives reflects the belief that current government policy will damage the longer run performance of the economy. The current policies, because of this, are considered inconsistent with the authorities' emphasis on the "supply side."

The National Institute's proposals reflect a belief that "cost push" underlies current British inflation. Therefore, an incomes policy to affect the short-run behavior of wages and structural reform for more permanent results are both considered necessary. The Institute argues that it would be easier to pursue a successful incomes policy in a growing economy than in one characterized by deflation and slow growth.

The National Institute also supports a decrease in the exchange rate, perhaps as a simple consequence of general reflation. An effective incomes policy would prevent the benefits of a depreciation from being eroded by offsetting inflation.

The TUC's position is similar to that of the National Institute. The TUC perceives the government's policies as relying exclusively on recession to decrease inflation; the lost output and unemployment that would be required to decrease inflation below double digits are "polit-

[35] Memorandum by the National Institute of Economic and Social Research. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, p. 152.

ically, socially, economically, and morally indefensible." [36] The government's attempts to improve "incentives" are criticized as not appropriate for a modern industrial economy, "characterized by a large public sector, multinational companies, powerful financial institutions, and a strong and free trade union movement." In such an environment, "the idea that competition and the free play of market forces can provide the means for allocating resources is little short of naive." [37] The alternative proposed by the TUC includes increased demand, a lower exchange rate, and policies to promote structural adaptation of the industrial sector.

First, the TUC argues that the exchange rate has increased beyond the level compatible with the performance of the manufacturing industry. The possibility of a virtuous circle of a high exchange rate leading to increased efficiency and decreased inflation is considered unlikely. Instead, decreased competitiveness is expected to result in increasing unemployment and import penetration. The government should, therefore, intervene and alleviate the pressure on the exchange rate. This could be done by relaxing monetary policy, intervening in the foreign exchange markets, and reinstituting exchange controls.

In addition to lowering the exchange rate, the government should also promote the structural adaptation of the industrial sector, and finance that adaptation from North Sea oil. The TUC objects to the use of oil revenue either to lower other taxes, to decrease public borrowing, or to finance investment overseas. The TUC would like to see it used instead to support countercyclical investment and to promote long-term investment. In addition, the current government's cutbacks in employment measures, industrial and regional assistance, and in the NEB are expected to "reduce the likelihood of manufacturing industry responding to the need to invest and modernize." [38] Most importantly, however, the existence of North Sea oil should not be allowed to appreciate the exchange rate to the extent that the industrial sector of the economy becomes permanently uncompetitive.

To support policies aimed at promoting structural adaptation and the introduction of new technology, the TUC considers an increase in demand necessary "to provide the initial stimulus to investment, output, and rising productivity. Improvements in efficiency can only be achieved against a background of investment and output growth. In an environment of decline, the attitude of industry is necessarily defensive." [39] "The government should plan the level of public expenditure in relation to the real potential for growth in the economy. An expansionary budget is needed to begin to reverse the slump and halt the rise in unemployment." [40]

The CEPG takes a stronger position. It believes more strongly in reflation, and views the United Kingdom's problem as stemming primarily from inadequate demand. Supply-side problems do not arise independently. In addition, the CEPG argues that trade unions bar-

[36] Memorandum by the Trades Union Congress. Memoranda on Monetary Control. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720, p. 168.
[37] Trades Union Congress Economic Review, 1980, p. 61.
[38] Trades Union Congress Economic Review, 1980, p. 66.
[39] Memorandum by the Trades Union Congress. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, HC 720, p. 171.
[40] Trades Union Congress Economic Review, 1980, p. 75.

gain for increasing real wages and, therefore, that inflation can be made worse by restrictive macroeconomic policies. The CEPG also believes in the necessity of import controls. A depreciating exchange rate is believed to be offset totally by increasing inflation. On the other hand, the CEPG does not believe in the virtues of a high exchange rate. The effects on competition and output would only exacerbate the problems already existing in the United Kingdom.

Summary

The responses to the government's inability to carry out its policies range from suggestions for minor modifications to proposals for nonmonetarist alternative economic strategies. The former group sees the government's problems as stemming from either too many commitments or perhaps inadequate monetary control techniques; the basic theories underlying the policies and the policies themselves are considered appropriate. Nonmonetarist critics of the government's policies, instead, take exception to both the policies and the theories underlying them. They propose alternatives of either more flexible deflation or mild deflation. The current government's policies of nonintervention in industry and the pay-bargaining process are also rejected as inappropriate for the United Kingdom economy.

Conclusions

Mrs. Thatcher has embarked on an economic program that is a major change in approach from the policies adopted by previous governments of both parties. Although monetary policy had become increasingly important throughout the 1970's, with explicit monetary targets being adopted in 1976, control of the money supply was not previously given the overriding priority given it by Mrs. Thatcher. In addition, some form of incomes policy was used by both parties before her election. Industrial policies, in various guises, had also received increasing attention and emphasis throughout the decade. Mrs. Thatcher has reversed the trend, and has moved, instead, to reduce government intervention in the economy.

It is difficult to reach any conclusions on the effectiveness of Mrs. Thatcher's policies, because they have not been implemented successfully. Sterling M3 has been growing at more than twice the target range of 7 to 11 percent and the excessive growth cannot all be attributed to the ending of the Supplementary Special Deposits scheme. The PSBR will also overshoot the government's target both for this year and 1981–82. Despite this, the economy has come under pressure. Nominal interest rates have reached record levels and remain high, sterling has continued strong, and unemployment has increased sharply. In response, price inflation and wage settlements have been coming down. It is unclear, however, how permanent these gains will be, or what costs in lost output and unemployment must be paid to get inflation below double digits.

It is equally difficult to determine the effects on the economy of the government's "supply-side" policies, because the performance of the

private sector, particularly manufacturing, has been dominated—adversely—by the demand-side effects of the government's monetary policies. In particular the level of the exchange rate and nominal interest rates have put strong pressure on the company sector and profitability and investment are both down.

Even if the government had implemented its monetary policy successfully, it is, of course, not certain that inflation would have subsided—that depends on the disputed validity of the monetarist theory on which the policy is based. And, finally, even if inflation had declined more rapidly and on a certifiably permanent basis, it is possible that this would have entailed such costs in lost output, unemployment, lost investment, and hence, lost potential output and—conceivably—social disorder as to make such a policy unjustifiable. The truly central question for the future of British economic policy, it would appear, is whether a policy that places "overriding priority" on the battle against inflation adequately takes into consideration the multiple responsibilities of government.

Appendix I [41]

The identity included in the text for the increase in sterling M3 and the table included in Appendix II can be derived from a consolidated balance sheet of the banking sector.

Liabilities	Assets
Sterling deposits:	Sterling lending to:
U.K. residents.	U.K. public sector.
Overseas residents.	U.K. private sector.
Foreign currency deposits.	Overseas residents.
Nondeposit liabilities (i.e., capital and internal funds *less* nonfinancial assets.	Foreign currency assets.

The net increase in U.K. residents' sterling deposits (deposits included in sterling M3) will equal the net changes in the other items in the balance sheet. The increase in sterling M3 will equal these net changes plus any increase in notes and coin held by the general public, the other component of sterling M3.

Increase in sterling M3 = increase in:
- Notes and coin held by the general public.
- Sterling lending to:
  - U.K. public sector.
  - U.K. private sector.
  - Overseas residents.

less Increase in:
- Overseas sterling deposits.
- Foreign currency deposits, net of foreign currency assets.
- Nondeposit liabilities.

The public sector borrowing requirement is equal to increases in (i) sterling lending to the U.K. public sector; (ii) notes and coin held by the public; (iii) borrowing from the private sector other than banks minus official purchases of commercial bills; and (iv) external and foreign currency finance of the public sector. Therefore, the increase

[41] Bank of England Quarterly Bulletin. "DCE and the Money Supply—A Statistical Note," March 1977, pp. 39–42.

in sterling lending to the U.K. public sector can be replaced by the PSBR (−ii) (−iii) (−iv). Substituting this in yields:

Increase in sterling M3=Public sector borrowing requirement—
less Purchases of public-sector debt by the U.K. private sector other than banks.
plus Increase in official holdings of commercial bills.
less External and foreign currency finance of the public sector.
plus Increase in sterling lending to:
U.K. private sector.
Overseas residents.
less Increase in:
Overseas sterling deposits.
Foreign currency deposits net of foreign currency assets.
Nondeposit liabilities.

Rearranging the items so that the components of DCE and external and foreign currency finance are grouped together yields the table included in Appendix II.

APPENDIX II

PERCENTAGE CHANGE IN STERLING M3

Millions: Seasonally adjusted	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980 (quarter) 1st	2d	3d
Public-sector borrowing requirement (PSBR) (surplus):											
Central government	+1,943	+2,172	+5,082	+8,803	+5,944	+4,431	+1,084	+8,200	+284	+3,117	+3,621
Other public sector	+581	+2,278	+2,868	+1,799	+2,580	+1,166	+1,176	+1,744	−136	+984	+295
Purchases (−) or public-sector debt by nonbank private sector:											
Other public sector debt	−338	−1,334	−1,768	−192	−771	+64	−333	−1,067	−125	−695	+176
Central government debt	−780	−1,377	−2,408	−5,145	−6,420	−6,731	−8,191	−8,159	−1,537	−2,204	−3,096
Bank lending in sterling:											
United Kingdon private sector	+5,456	+5,674	+2,542	−561	+3,391	+3,743	+6,296	+9,325	+3,409	+2,310	+3,125
Overseas sector	+95	+418	+60	+433	+220	+1,135	+334	+494	+423	+606	+807
DCE	+6,945	+7,831	+6,376	+5,137	+4,944	+3,808	+7,366	+10,537	+2,318	+4,118	+4,928
External and foreign currency finance (−):											
Public sector	−1,749	−1,220	−2,624	−1,165	−1,119	+4,302	−590	+407	[1] +282	[1] −277	[1] +52
Overseas sterling deposits	+171	−95	−598	−389	−175	−1,471	−619	−2,829	[1] −439	[1] −1,177	[1] −806
Banks' net foreign currency deposits	+428	−45	+210	−108	+38	+32	+183	−213	[1] −104	[1] +443	[1] −161
Net nondeposit liabilities (−)	−802	−346	−626	−1,022	−859	−438	−1,044	−1,452	−669	−239	−673
Change in sterling M3	+5,263	+6,125	+2,738	+2,453	+2,829	+6,233	+5,296	+6,450	+1,537	+3,350	+2,811
Sterling M3	NA	26,330	32,450	35,220	37,680	40,810	46,730	52,170	57,910	58,890	62,600
Percentage change in sterling M3	NA	23.3	8.4	7.0	7.5	15.3	11.3	12.4	2.7	5.7	4.5

[1] Not seasonally adjusted.

Source: Bank of England Quarterly Bulletin. 1979–80. Tables 11.1–11.3.

APPENDIX III

GLOSSARY

Bank Rate.—The rate at which the discount houses could borrow from the Bank of England until 1972, at which time it was replaced by the Minimum Lending Rate.

Base Rate.—Each bank has a single base rate, which may sometimes differ from those of other banks. The rates of interest charged by the London clearing banks from their advances to customers and their discounting of trade bills are, in general, linked to their own individually declared base rates. The rates charged for advances depend on the nature and status of the customer. Most lending is between 1 percent and 5 percent higher than base rate. In December 1973, however, the clearing banks announced that, in order to curtail arbitrage transactions by their customers, they proposed to indicate to certain customers (in particular local authorities, finance houses, and other banks) that advances would in future be related to market rates instead of to base rates.

Bill Leak.—The takeup of bank bills by the nonbank sector. A form of disintermediation that resulted from the "corset."

Call Money.—Overnight secured loans to the discount market.

Cash Ratio.—London clearing banks keep an average of 1½ percent of their eligible liabilities in the form of non-interest-bearing balances at the Bank of England. The commitment for month "+" relates to the level of eligible liabilities on the makeup day in month "+−1." The requirement does not apply on a daily basis. Daily deviations may be averaged over the month and shortfalls or excesses carried forward.

Central Government Borrowing Requirement.—A measure of the net expenditure (including lending) of the central government resulting broadly from decisions of a budgetary nature.

Corset.—See Supplementary Special Deposits Scheme.

Discount Houses.—See London Discount Market.

Domestic Credit Expansion (DCE).—Increase in domestic money stock after adjustment for any changes in money balances caused directly by an external surplus or deficit.

Eligible Liabilities.—Liabilities against which reserve assets must be held. These include sterling deposit liabilities, excluding deposits having an original maturity over 2 years, plus any sterling resources obtained by switching foreign currencies into sterling. Interbank transactions and transactions with the discount market (other than reserve assets) and sterling certificates of deposit (both held and issued) are taken into the calculation of individual banks' liabilities on a net basis, irrespective of term.

External and Foreign Currency Finance.—Approximately the surplus or deficit on the current account of the balance of payments and private-sector capital flows.

Gilt-Edged Stocks.—Marketable government debt other than Treasury bills.

London Discount Market.—Consists of 11 discount houses and certain firms carrying on a similar type of business. The discount houses borrow "at call" from banks and other financial institutions. The funds borrowed are primarily invested in British government stocks and Treasury bills, commercial bills of exchange, local authority securities, and certificates of deposit. The Bank of England acts as lender of last resort to the 11 discount houses.

M1.—Narrow definition of the money stock consisting of notes and coin in circulation with the public plus sterling sight deposits held by the private sector only.

Sterling M3.—Notes and coin in circulation with the public, together with all sterling deposits (including certificates of deposit) held by United Kingdom residents in both the public and private sectors.

M3.—Sterling M3 plus all deposits held by United Kingdom residents in other currencies. It is equivalent to pre-1980 United States M4 (M2 plus large negotiable CD's) plus holdings by United Kingdom residents of nonsterling deposits.

Minimum Lending Rate (MLR).—The minimum rate at which the Bank, acting as lender of last resort, normally lends to members of the discount market against security of Treasury bills, other approved bills, or government stocks with 5 years or less to maturity. Until May 24, 1978, the rate was normally set one-half percent higher than the average rate of discount for Treasury bills

established at the weekly tender, rounded to the nearest one-fourth percent above and effective, for lending by the Bank, from the following working day. On May 25, 1978, it was announced that the rate would in future be determined by administrative decision and any change would normally be announced at 12:20 p.m. on a Thursday: the new rate would become effective, for lending by the Bank, immediately.

Money At Call.—Money lent to the discount market and returnable on demand.

PSL 1 (Private-Sector Liquidity One).—Private-sector component of sterling M3 (excluding over 2-year deposits), money-market instruments (Treasury bills, bank bills, and deposits with local authorities and finance houses) and certificates of tax deposit. By including the main instruments in which wholesale liquid funds are invested, it is likely to be relatively unaffected by large movements of company-sector funds as a result of interest rate differentials between sterling assets.

PSL2.—PSL1 plus certain building society and other savings deposits and securities.

Public-Sector Borrowing Requirement (PSBR).—The difference between public-sector receipts from and payments to the private sector and overseas. Payments include "net lending" which includes loans to the nationalized industries. Includes borrowing to finance investment by public corporations—therefore, not directly comparable to U.S. government sector deficit.

Rate Support Grant (RSG).—General grant from the central government to local authorities to supplement income from rates. In addition, specific grants are made for certain services.

Reserve Assets.—These comprise balances with the Bank of England (other than special and supplementary deposits); money at call (secured and immediately callable) with the listed discount market institutions (discount houses, discount brokers, and the money-trading departments of listed banks) and with listed brokers (money brokers and jobbers on the stock exchange); British government and Northern Ireland government Treasury bills; United Kingdom local authority bills eligible for rediscount at the Bank of England; commercial bills eligible for rediscount at the Bank of England—up to a maximum of 2 percent of eligible liabilities (these comprise bills which are payable in the United Kingdom and have been accepted by banks which are members of the Committee of London Clearing Bankers, or the Committee of Scottish Clearing Bankers, or the Accepting Houses Committee, or by British overseas banks, or certain other banks having their head offices in the Commonwealth and with long-established branches in London); and British government stocks and stocks of nationalized industries guaranteed by the government with one year or less to final maturity.

Reserve Ratio.—The total of reserve assets as a percentage of the total of eligible liabilities. Each bank is required to maintain reserve assets amounting to at least 12½ percent of its eligible liabilities. Finance houses observe a 10 percent reserve ratio.

Special Deposits.—Special deposits may be called by the Bank of England from all banks observing the common 12½ percent reserve ratio and from all finance houses observing the common 10 percent reserve ratio. Interest is paid on special deposits at a rate adjusted weekly to the nearest one-sixteenth percent per annum on the average rate for Treasury bills issued at the latest weekly tender.

Supplementary Special Deposits Scheme.—A policy instrument which imposes penalties if the growth in the banks' "interest-bearing eligible liabilities" exceeds a specified ceiling. It was first instituted in 1973.

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IV. MONETARY STABILITY AND INDUSTRIAL ADAPTATION IN WEST GERMANY

The West German economy dealt successfully with a series of shocks through the first half of 1980 that left most Western European countries in some economic trouble. Germany's monetary policy, administered by the independent Central Bank, and the capacity for industrial adjustment of the German private sector have been key elements of this success. In both areas the overriding concern of all participants, public and private, has been the same: economic stability.

Economic stability does not mean simply low inflation rates, although they are an important element of any stabilization program. The range of concerns that motivate German economic planning are set forth in the 1967 *Act to Promote Economic Stability and Growth.* They are: stable prices, appropriate growth, high employment, and balanced trade. There is general agreement that all of the policies are important, and that the successful implementation of any one of them requires stability in the other areas.

The consensus that has spanned all economic sectors from the private bankers to the trade unions is reinforced by the formal and informal arrangements that characterize the German system. Although the edges of this agreement are increasingly tattered as the 1980–81 recession goes on, the consensus is still there, and at the center of it stands the *Deutsche Bundesbank.* Since its creation in 1957, the Bank has carved out a reputation for intelligent planning and forceful implementation that keeps all other sectors of the economy reacting to its moves. That is exactly the way the Bundesbank wishes it to be.

The Central Bank's policy decisions are, by and large, taken with respect to the overall economic conditions of the country, and not with overriding attention to any particular policy priority, or special interest, or to please any particular academic sect. Furthermore, the Bank is aware that its success depends upon the cooperation and understanding of all sectors of the economy. For these reasons, the Bank is in constant touch with all major interests in the country, including both private- and public-sector representatives.

The government plays a more limited role. While there is a bewildering array of tax incentives and research subsidies, these provide only a small share of the money and resources used by the private sector to develop new products and production methods. Investment decisions are left largely to the companies themselves, in open concert with the major private banks. The big commercial and savings banks of Germany help to coordinate and centralize industrial decisions within the Federal Republic.

This essay will examine the formal and informal mechanisms by which monetary policy and industrial adjustment are arrived at in Germany. The paper's structure will parallel the economy in concentrating on the five "pressure points" that make nearly all impor-

tant economic decisions in the Federal Republic. These five pressure points are the government, the Bundesbank, the banking sector, the company sector, and the unions.

The first section will give a brief historical setting to the essay. Two cataclysms stand out: the hyperinflations of the twenties and late forties, and the vast destruction of life and property that Germany experienced in the Second World War. These have produced the broad-based need for security which has given Germany its economic foundation of consensus.

While this essay will focus on German economic institutions, it must not be forgotten that the political, psychological, and historical aspects of Germany's national life are crucial to the success of its economy. Many decisions taken by the Bundesbank and the federal officials are made with these factors in mind, and any recounting that ignores them in favor of strictly formal institutional presentations will not give an accurate representation of the economy.

Following the historical section will be an institutional review. To provide the widest framework first, the structure of government and its economic policy powers will take up the first part of the section. Among the most crucial elements in this survey will be the tax policies and sectoral support programs of the government. Although support programs play an extremely small part in recent German history, they have importance in certain sectors such as shipbuilding, coal, and energy-related research and technology.

The next institution considered will be the Bundesbank, which dominates the field of monetary policy. Because of the number and complexity of its instruments, and the crucial, albeit indirect, impact its decisions have on the conduct of industrial policy, this will be the longest part of the paper. An important aspect of the Central Bank's story is its transition to monetary targeting in the mid-seventies and the role such targeting plays in the Bank's complex of policy tools.

Following the Bundesbank will come a discussion of the private banks. The private banks are the conduit through which most of the Central Bank's policies are effected, and they are crucial to the investment decisions of private corporations. There are three main reasons for their importance. First, is the direct power banks have by holding stock in many large corporations and by sitting on their supervisory boards. Second, is the less direct power that comes from the banks' major role in financial capital investments for firms, since there is a relatively small stock market in comparison to the capital needs of industry, and the bond market is dominated by the banks. Finally, is the traditional role of private bankers as sources of information about investment and general financial intelligence for the German business executive.

The fourth part of the institutional section will concentrate on private corporations, detailing their arrangements with the banks, the unions, and the federal government. Private corporations have pursued the innovative policies which are largely responsible for Germany's economic health in the postwar period. Key examples of adaptation will be taken from shipbuilding and steel where massive changes have been wrought in the last decade. Shipbuilding received one of the largest direct government subsidies, along with federal guidance

and support to retool and reduce its work force, while the steelworks have succeeded at the same tasks largely without direct grants, although they have benefited from such Europe-wide support programs as the Davignon Plan.

The final area of concentration will be the trade union movement in Germany. Unlike those in most Western European nations, German laborers have been reluctant to strike, and willing to take relatively low wage increases when convinced that their sacrifices will result in creation of productive capacity and not simply in the enrichment of capital owners. The existence of only 16 unions, and a tradition of allowing the first wage settlement of the year to guide all later settlements, has combined with widespread fear of economic chaos to make German workers among the highest paid and most productive in the world.

With the institutional arrangements laid out, this paper will make two final points. First, the concern of German authorities is not (as widely asserted) only with price stability, but with stability in general. The 1973–75 era provides clear evidence on this point. At that time, inflation, unemployment, and excess trade surpluses—threatening currency instability—were all significant dangers. The authorities did not respond to this crisis with a single-minded emphasis on controlling inflation. Instead, they juggled and compromised on each specific goal mandated by the Act to Promote Stability, in order to maintain stability overall.

The second point emerges from a comparison of that period with the 1980–81 situation. Many dilemmas of 1973–75 have resurfaced to haunt the economy now. The country is faced with a painful choice between guarding its long-run price stability, and trying to stem an accelerating recession. This danger is compounded by the extreme export dependency of German industry and a withering domestic market for consumer goods. The central problem of the 1980's for Germany is whether the institutions which have performed so well in the past are capable of handling this new surge of difficulties.

The Postwar Recovery in Brief[1]

An understanding of the economic and political life of modern Germany requires familiarity with the last century of this troubled country's history. Not only its vaunted fear of inflation, but many of its institutional arrangements have risen from the ashes of previous errors.

The overarching concern with stability and security has been forged by two hyperinflations, as well as the personal and social losses from wars, political turmoil, and the destruction of industrial capacity by relentless Allied bombing and conquest during the Second World War. The best estimates are that 15 percent of the country's population were killed during the war, and many more people were permanently crippled. On top of this was the blow to German transportation facilities as all bridges spanning the Rhine, Wesel, and Main

[1] Much of the character and substance of this section is due to the thorough, and fascinating, recounting of the German postwar recovery in The Fourth and Richest Reich, by Edward Hartrich, MacMillan Press, New York, 1980.

rivers were destroyed, and the railroad system obliterated. When the War ended, the German economy faced total collapse.

From 1945 through 1948, unemployment continued to grow, while production and housing remained at minimal levels. The people, many of whom had suffered social and economic chaos twice in their lives, came to value security above all else. The consensus that grew out of this shared deprivation has continued to dominate Germany to this day.

The first postwar leaders, Adenauer in politics and Erhard in economics, knew very well that security was uppermost in citizens' minds, and that any form of government or economic arrangement which failed to provide such security would not survive.

The first order of business was to reconstruct the country's steadily deteriorating production and supply capabilities. By early 1948, Lucky Strikes had replaced the disgraced Reichsmark as Germany's accepted currency. With the previous hyperinflation of 1922–23 burning in their minds, officials recognized that a stable and hard currency was necessary for further progress. With this in mind, on June 20, 1948, the American government unleashed Operation Bird Dog. The plan was to replace untold billions of worthless Reichsmarks with 10 billion newly minted Deutsche marks. It was announced that each German citizen could exchange 400 Reichsmarks for 40 Deutsche marks. Two months later, citizens were allowed to exchange 200 more Reischsmarks for 30 more Deutsche marks. That was it. The government estimates that 93 percent of all paper wealth was wiped out by this conversion.

Its effect was immediate, astonishing, and positive. As Henry Wallich has noted:

> It transformed the German scene from one day to the next. On June 21, 1948, goods reappeared in the stores, money resumed its normal functions, and the black and gray markets reverted to a minor role.[2]

But the longer term performance was even more impressive than the immediate impact. In the 22 months after introduction of the Deutsche mark, industrial production rose by 83 percent.

The overwhelming importance attributed to maintaining the strength of this currency can be seen in the government's fierce determination to keep the mark stable and prices down. The pride with which Germans came to view the Deutsche mark is illustrated by the festivities of June, 1968, to commemorate the 20th anniversary of its introduction. The other side of this pride, however, are the dark fears of losing the security this currency brings to their lives. These fears are reflected in Heinrich Boll's words:

> The ownership of land, of real estate . . . has remained the sole stable factor; and a currency, a mark that has already reached 28 years (after two other marks had melted away within 25 years), has likewise become a stable factor, and anyone interfering with either of these factors has little chance of obtaining votes.[3]

The obsession with security that dominates economic discussions is evident in the campaigns between the conservative Christian Democrats and the more progressive Social Democrats. The differences in

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[2] Edward Hartrich. The Fourth and Richest Reich (MacMillan Press, New York), 1980. p. 105.

[3] Heinrich Boll, The New York Times Magazine.

the few major economic issues separating the two parties begin to melt away when the talk turns to details of economic programs for the country. The two parties often find themselves in the position of a Christian Democratic gubernatorial candidate who had to admit that he "didn't know what his party would do differently for the economy if it were elected."

It was the Christian Democrat Ludwig Erhard who epitomized the German approach to economic reconstruction, combining a free-market orientation with social welfare concerns to arrive at what he termed *sozialemarktwirtschaft* or the social market economy. As the most noted German voice in postwar economic planning, Erhard implemented a hybrid approach which sought to assure that all sectors of the economy benefit from any general economic improvements. This led to an extensive social welfare system, strict labor laws, a form of industrial democracy, and three decades of relative labor-management peace.

The compromises since 1945 have not been made solely by the Christian Democrats. After the Social Democrats lost the first decade of elections to their conservative counterparts, it was clear their Marxist tenets did not appeal to most citizens. Therefore, in an historic conference at Bad Godesburg in 1959, the Social Democrats renounced Marxism and accepted a much more conservative political philosophy. It was only then that the Social Democrat's electoral share began climbing, and in 1969 they achieved a parliamentary majority in coalition with the Free Democrats.

Even though the Social Democrats had moderated a great deal by the time of their victory, fears of destabilization and socialist-led waves of expropriation caused some businessmen to hustle suitcases full of marks into Switzerland shortly after the election. The decade of leadership under Willy Brandt and Helmut Schmidt has erased any lingering fears about the dangers of their rule, and a 1980 Christian Democratic national campaign based on stopping the socialist threat from the Social Democrats fizzled and expired well before election day.

The country's consensus for stability is important not only for politicians, but also for central bankers as it helps set the conditions under which the Bundesbank wields the considerable power that it does over the country's economic course. The Bundesbank is perceived as an able and determined guardian of monetary stability, and its power has only been increased by a few clashes with the government in its 23-year history. Its goals have not changed, and its policies are directed single-mindedly at stabilization of the Deutsche mark as long as that goal does not threaten severe destabilization of other economic concerns such as employment and the trade balance. Although other sectors have had disagreements with the Bank on specific issues, there is widespread agreement with its goals and admiration for its skill.

The history of postwar recovery is no less important to industry and banking than to the public sectors. Since Allied bombing left Germany's heavy industry in ruins, Germany started fresh after the war with greenfield site development, without the constraint of heavy previous capital investments. The greenfield conditions and heavy foreign demand for German goods led to an orientation toward innovative production processes and export markets that are the cornerstones of German industrial policy today.

Crucial to the industrial recovery was the system of German banking, which had developed during the century before the war, and which the allied forces did their best to destroy after the war. The Occupation forces broke the big three banks into 30 successor banks, with each of the three having one new bank created in every state (Land) of Germany and in Berlin. The demands of history and reconstruction were too much, however, and these banks slowly recombined into the original Big Three so they could afford the massive loans necessary to finance postwar recovery. The existence of very large banks, with the attendant capital facilities and investment expertise, are a part of German history that could not be purged successfully by foreign intervention. The banks and businesses have traditionally worked hand-in-hand in ways that violate most received ideas about sound banking in Anglo-Saxon countries.

The banks were not the only case where the Allies discovered that American standards simply could not be imposed. Perhaps the most embarrassing such arrangement has been the Allied-imposed breakup of the chemical giant, I. G. Farben, into three autonomous units. At the time, Farben was the world's largest chemical firm. Its three successors, BASF, Fabwerken Hoechst, and Bayer Leverkruse, now rank 1st, 3d, and 4th in the world, respectively. Each of them is larger than the largest American chemical companies, Dow and DuPont.

All sectors of the economy had learned hard lessons about the great intrinsic value of stability in the first half of the 20th century, but laborers paid the highest tuition. It was largely the laboring class which fought the war, and the same class that was left without any real estate or capital goods after the conversion from the Reichsmark to the Deutsche mark. While there has been some redistribution of the wealth remaining after the war and subsequent currency change, laborers suffered demonstrably more than capitalists as a class. To help protect themselves against renewed destruction, labor has forged a record of cooperation with capital that is the envy of most Western European nations. The dual lesson labor seems to have taken up is a fear of destabilization and an appreciation for the rewards of the social market economy which has developed in the last 35 years.

While there are reasons to wonder about the medium-term future of the German economy, there is no denying the successes of the postwar period and most particularly of the 1970's, when most other industrialized nations were suffering prolonged doldrums. The past is part of the explanation for the country's success, but institutional arrangements within the public and private sectors are also important to the economic "miracle" of modern Germany.

The Role of Government

The federal, state, and local governments in West Germany are involved in many aspects of the economy, as are all West European governments. Their concerns range from labor and social security to housing and agricultural support. For our purposes, however, only two areas are important: money-related policies and industrial policies. Not including the powers of the Bundesbank, the various levels of government exercise influence over monetary developments through tax and exchange rate policies. Industrial aid, which is limited in the

Federal Republic compared to other EEC countries, comes largely through tax relief measures or research and development grants at the federal level, and through loan guarantee programs at the state and local levels. Two notable exceptions to this rule are the government's direct support of airbus development and federal ownership of the coal companies.

The government's taxation powers fall into two categories, those employed primarily to raise revenue for federal, state, and local programs, and those used in a countercyclical manner to affect economic developments. The latter are of greater interest here, but a brief account of the former will give a good idea of the setting within which the countercyclical programs must work.

The total of all taxes received by the various governments is 26 percent of GNP with the total revenue (excluding social security taxes) in 1979 being slightly over 375 billion DM, out of a GNP of 1.4 trillion DM. Seventy-three percent of all taxation is done jointly by all three levels of government. Once collected, the money is distributed among the governments roughly in a 52 percent, 40 percent, and 7.4 percent split among federal, state, and local authorities, respectively. There is a mild redistributive pattern to the allocations among the various states, with high employment, wealthy states like Hesse paying out more than is returned to it, and relatively impoverished areas such as Saarland having the reverse situation. This redistribution effect was highly controversial at the outset since states receive 86 percent of their revenue from joint taxes.

While the joint tax revenues come largely from income and corporation taxes plus value added receipts, the separate collections at all levels tend to come from commodity and property taxation. Combining the revenues from both joint and separate collections, the federal government takes almost exactly half of the total revenue collected (49.8 percent), with the states getting a third (34.5 percent), and the local authorities 15.7 percent of total revenue. These proportions have been relatively constant over the last decade.

In addition to the normal taxation powers, the federal government has a series of short-term countercyclical tax instruments at its disposal that were given to it in the 1967 *Act to Promote Economic Stabilization and Growth.* This Act grew out of the 1966 recession when it became clear that monetary policy, as practiced by the *Bundesbank*, would be insufficient to keep the economy on an even keel through all conditions. The powers granted to the government represent the high point of fine tuning, and were greeted by then chief of the Economics Ministry policy division, Dr. Otto Schlect with the words:

> The ad hoc economy, the economy of the light hand is dead . . . we have a new economic system now . . . a tailored economy.

The oil shock and subsequent events have knocked much of the wind out of the fine-tuners' sails, but the powers remain on the books. Their greatest period of use was in the early 1970's, culminating in 1973–74.

Under the 1967 Act, the government—at the behest of the Economics Minister, and subject to the endorsement of Parliament within 6 weeks—may take a range of measures to affect the liquidity and investment prospects in the economy. It may raise or lower income taxes by up to 10 percent, for up to 1 year. The receipts from this

tax are placed in a blocked account with the Bundesbank and returned at the end of the embargo, usually as part of a secondary countercyclical policy. One use of this policy in 1973 caused a minor stir when the Social Democrats invoked the tax rise for higher income Germans, only stimulating renewed fears of vast expropriations of wealth. The concern was ill-founded and dissipated quickly.

A second set of policy tools allows the government to accelerate, slow down, or even suspend tax depreciation for industrial capital investments. Such changes would almost certainly affect investment decisions, especially as the 1-year time limit is known in advance and businessmen would seek to take advantage of the breaks or avoid the penalties, as the case may be.

Another group of tools operate on the budgets of federal, state, and local governments. The Ministry can order across-the-board partial freezes in spending by all units. The government cannot specify which programs are to be cut, such decisions being left to the departments. The money from such freezes is placed in a blocked account and becomes known as an "eventual budget," which will be released in future countercyclical moves. Additionally, the Ministry may order accelerated repayment of government loans to the Bundesbank.

These programs offer strong medicine for an economy, but the dangers of application to situations where there is not an underlying robustness is great enough to warrant extreme caution in their use. As mentioned, these instruments have largely gone out of favor with government officials.

The other major instrument of monetary control at the disposal of the Ministries is exchange rate policy. In setting such policy, the government naturally works closely with the Bundesbank, but it is not obliged to follow the Bank's directives. Before the large revaluation of the mark in 1969, the Central Bank had been publicly pressuring the government to take some action in this direction for some time. The government remained convinced that strongly worded intentions against revaluation would be enough to cure the speculative capital inflow caused by the Bank's obligation to support the parity arrangements of the old Bretton Woods agreement. Only after the national election of that year was the mark revalued (by 9.3 percent against the dollar). It should not be thought that the government does not take the Bank's opinion seriously, but the Bank is officially charged with maintaining monetary stability, while the government must worry about all aspects of the economy. Furthermore, all sides agree that while revaluation does not occur whenever the Bundesbank wishes, the government would never revalue *against* the preference of the Bank.

A different focus for government economic intervention comes through a broad range of industrial aid programs; both direct grants and indirect tax subventions. There have been programs to help specific industries rationalize their production processes and capacities, such as those aimed at the shipyards during the 1970's (about which more below), but despite these interventions, the fate of individual firms is largely left to the private sector. When large amounts of government aid does materialize for specific industries, it is for large-scale capital adjustments aimed at making the firm(s) competitive in

the medium term. The authorities have made it a basic principle not to intervene simply to save jobs, or to prop up dying businesses. All evidence indicates that this is not merely lipservice to the idea of free markets, but is the general rule of government practice for the Federal Republic.

The largest share of tax subventions for private enterprise is directed at nonindustrial sectors of the economy. According to the Economics Ministry, there are a total of 270 subvention programs scattered throughout the government at a cost of 50 to 70 billion DM per year. The sectors receiving the largest share of these programs are: agriculture, public transportation, energy, and housing.

With the exception of a few industry-specific aid programs, provision of money directly to private firms is usually done by the Ministry of Research and Technology (*Bundesministerium Forschung und Technologie*). The Ministry's basic focus is to aid the all-important process of innovation in the Federal Republic. Its primary concern is development of nuclear power for Germany, which depends upon imported oil and gas to supply over two-thirds of its total energy needs. Roughly one-fourth of the Ministry's budget is allocated to supporting research in nuclear and fusion reactors.

The use of incentives rather than directives is a central element of the German government's approach to influencing industrial development. Whenever public sector intervention is required, incentive policy is used if possible. The limited scale of such intervention is partly a result of the country's free market consensus, and partly a result of the great success the private sector has had in dealing with economic developments of the past 35 years. When commentators point to the limited role of government participation, they should recall that the private sector's continued innovation, including labor, management, and bankers, is the most important factor contributing to the authorities' free market stance, and that the private banking sector performs a relatively centralized directive role in investment decisions by firms. The success of the social market has allowed the government the freedom to stay less involved in directing the economy.

A large factor in this success has been the strong direction given the overall monetary policy of the Federal Republic by its Central Bank, the Deutsche Bundesbank (DBB). If we were to speak solely of monetary policy, little would need to be said that did not involve this institution. Its role in industrial policy is limited to indirect influences that come from the availability of credit and general liquidity in the economy, and its relatively new effort to guide the nation's economy by publishing targets of money stock increases year-to-year.

The Central Bank

The German Central Bank (*Deutsche Bundesbank*) was created in 1957 by merging the state (*Lander*) banks and the *Bank deutsche Lander*. Its primary goal is to assure the continued high performance of the Deutsche mark. It is charged secondarily with assisting the federal government's economic policy, but in the case of conflict between the two goals, it must choose to assure the mark's stability. This ordering of goals is evident in the DBB reply to questions from

the U.K. House of Commons Treasury and Civil Service Committee in June 1980:

> The accepted interpretation of the relevant sections of the Bundesbank Act, which has never been disputed by the government, is that in the event of a conflict with the objectives of the government's general economic policy the Bundesbank has to give priority to its primary task, namely safeguarding monetary stability.[4]

The few outbreaks of conflict between the Central Bank and the federal authorities illustrate that this is a true state of affairs and not merely public relations.

One of the most interesting tests of DBB autonomy came in March 1970. At this time, the stability of the mark was threatened from many sides. First, there were foreign exchange pressures. The mark had been upvalued by over 9 percent only 6 months before in the wake of its emergence as the second major reserve currency in the world, after the dollar. Because of the small German economy, in relation to that of the United States (roughly one-eighth the size), the reserve currency status left the DBB faced with profound difficulties in its attempts to control the domestic money supply. Compounding this was the Bundesbank's pledge to support the dollar, if not within the old Bretton Woods parity range, then at least within moderate parameters. Finally, the DBB had to note a surging inflation rate that officials believed was in danger of destabilizing the entire economy. The coincidence of all these circumstances was thought sufficient to spawn the widespread inflationary psychology the Bank was determined to avoid.

Following the federal government's failure to invoke the strong inflationary program proposed by then-Economics Minister Schiller, the DBB raised the rates at which it loans to banks to their highest level since World War II. It took this action against the advice of labor, management, banks, and the government itself. Coupled with this was a 30-percent increase in the reserves which banks had to hold on deposit with the Bundesbank against nonresident liabilities. This double-barreled action was intended both to slow credit expansion and to decrease the huge foreign capital inflow resulting from speculation about new upvaluations of the mark.

This did not end the DBB action to slow the economy. It continued to pressure the federal government for strong fiscal measures to dampen inflationary pressures in the economy. Political pressure from business and labor to avoid such "restraining policies" caused the newly elected SPD coalition to reject the bank's pressure. Finally, after 4 months of behind-the-scenes lobbying with no results, the Bundesbank took a step it had never taken. It announced an intent to raise the banks' reserve requirements by 10 to 20 percent. While the effects of such a squeeze would be severe, the DBB chose this announcement of intent as the most dramatic signal it could give of its seriousness to follow whatever course necessary to smother the rising inflation rate.

Only 4 years earlier, the Bank had generated a recession sufficient to oust the Chancellor when it was forced to use its rather broad-stroke

[4] Memorandum by the Deutsche Bundesbank. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, vol. 2, p. 11.

instruments in the face of fiscal impotence by the government. Since that time, the 1967 Act to Promote Stability had been ratified, offering the government a broad range of countercyclical weapons that stood less chance of overcompensating for the liquidity glut than did the additional weapons at the disposal of the DBB. The Cabinet met shortly after this announcement to reconsider antiinflationary measures it had shelved in March, but no action was taken.

After seeing that no governmental action was forthcoming on July 1 the Bundesbank raised the reserve requirements by 15 percent, hitting the middle of its threatened range. It believed no more increases in its lending rate were possible, since higher rates would attract more speculative capital from abroad, thus compounding the liquidity glut. The continued pressure of the Bank and its clear determination to blunt the economic upsurge finally outweighed private sector pressures, and the Parliament ratified a government plan to increase personal and corporate taxes and to suspend certain capital depreciation provisions. On the same day that this measure passed the upper house of Parliament, the DBB reduced the rate at which it lent to banks to guard against more speculative capital inflows.

It is exactly the DBB's willingness to press its case against strong political opinion, along with the undeniable intelligence it has brought to its goal of monetary stability, that makes the Bank a major force in determining the course of the German economy. The Bank is fully aware that public perception of its determination, and a thorough understanding of its instruments and goals, are crucial to its task. It does not operate in a vacuum guided only by neo-Keynesian or monetarist theory but recognizes the importance of presentation, persistence and consensus for the success of its policies.

Organization and Instruments

The first thing to note about the Bundesbank's power is the number of institutions covered by its regulatory powers. Any institution that performs banking functions in Germany is considered to be a bank. This covers more ground than might be suspected at first since the definition of banking functions is broader in Germany than in the United States. Under the Federal Republic's rules, any credit institution that deals with deposits, loans, security transactions or the safekeeping of securities for others is a bank for regulatory purposes.

A few credit facilities, such as insurance companies, escape control by the DBB but they play almost no role in the creation of short-term capital so their exclusion has no significant impact on money creation.

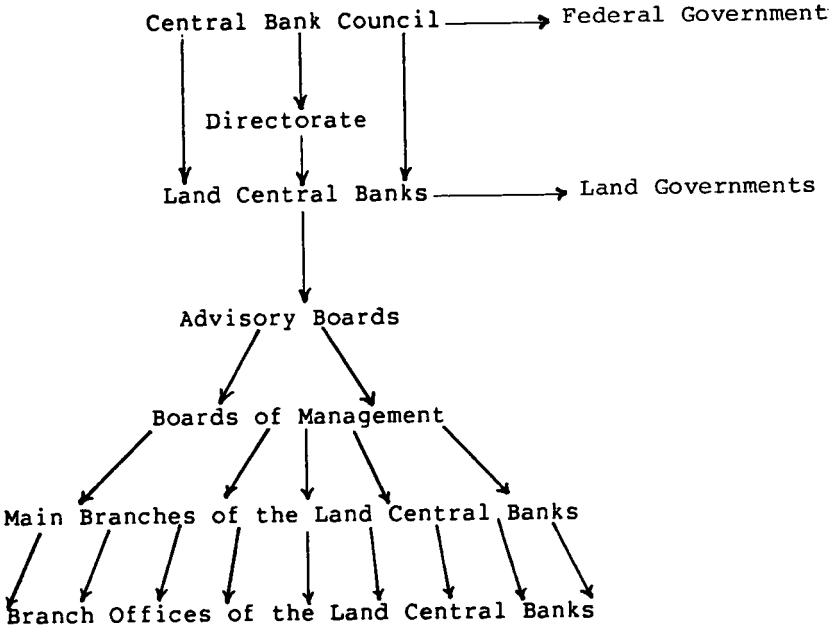
The range of instruments at the Bank's disposal can be divided into "longer run adjustments" and "fine tuning." The longer run policy decisions aim at shifting underlying developments in the economy and must be made at meetings of the Bank's policy-setting board, the Central Bank Council (CBC). Fine-tuning instruments may be applied as needed by the Directorate which is the Bank's daily management board.

The Directorate is the presence that guarantees an orderly implementation of the open market policy established by the Central Bank Council. Although it is not a policymaking authority in its own right,

all Directorate members are ex officio on the Central Bank Council. The Directorate is made up of the Bundesbank's president and vice president, plus up to eight other members, all appointed by the President of the Federal Republic.

Each state has its own Land Central Bank which helps to coordinate Central Bank policy by effecting information transmission, account keeping, and so forth, between the federal authorities and state level businesses, bankers, and other interests. This federated structure keeps regional concerns from being completely ignored and eases the task of implementing centralized decisions throughout the country. The formal lines of authority, within the official structure, for the Central Banking System are as follows:

TABLE IV-1.—*Structure of German Central Banking*



The lines of authority in Table IV–1 are, of course, highly schematic. The Central Bank Council does not work by imposing its decisions on others without regard to their concerns—at least not usually. The second and final thing to notice is the Main Branch and Branch Office structure of the Land Central Banks. The result of this organization is that nearly every town of moderate size in Germany has a branch office of the Bundesbank.

The control of money and credit by the Bundesbank is centered on interest rate and reserve requirement manipulation. Open market operations, while used more frequently in the last few years, play a limited role in policy control due both to the relatively small size of these markets and to the small number of institutions who participate in bond purchases and sales. Still, such operations are used to give signals and to mop up small amounts of excess liquidity.

Although the Bundesbank argues that it follows neither an interest rate nor a liquidity management policy per se, its instruments may be divided between the two for analysis. It should be clear that the Bank does not, in fact, seem to pursue one or another of these policies single mindedly, but tries to mix and match with overall stability as its goal.

Interest Rate Policy

The Bundesbank has three interest rates in its policy arsenal. The Discount and Lombard Rates are the charges for which the DDB will advance money to banks. Of late, the higher Lombard Rate has set the open money market rates within fairly narrow limits. The third rate is that at which the Bank offers government and Treasury paper on the open market. Used in concert with the discount quotas and other liquidity measures, the Bank has maintained impressive control over the monetary system during the past decade.

The Discount Rate is the basic rate at which the Bundesbank will rediscount commercial bills of exchange and checks. This facility is available only to credit institutions, and maturities never exceed 3 months.

Since the Discount Rate has, by and large, remained below the interbank money market rates for the last 10 years, few banks fail to borrow as much as they can at this rate and use it in the capital markets as that becomes possible.

Banks are restrained from unlimited use of this facility by rediscount quotas. These quotas determine the amount any single bank can borrow at the Discount Rate from the central bank. These limits can never be exceeded. Furthermore, in principle, each bank has its discount quota determined separately. If a bank falls short of its reserve requirement and has used up its discount quotas, its only resorts are to the Lombard Rate or to the interbank money market.

The Bank has not hesitated in its use of rediscount rates. In the 23 years of its existence, the Bank has altered the Discount Rate 47 times, with 6 years seeing at least four Discount Rate changes. The rate movements are rarely large, never more than 1 percentage point and usually only one-half a point.

The last two large-scale movements of the Discount Rate illustrate the cautious but firm use of this policy by the Bank. In 1975, the Bank was trying to spur an economic recovery without stimulating inflation. It lowered the Discount Rate in 4½ point stages from 5½ percent to 3½ percent during the first 9 months of the year. In 1979, when the Bank was trying to brake an explosion of monetary growth, it began to raise the Discount Rate by 1 point in four separate movements from January to November. This movement was completed by two changes in early 1980. The last came on May 2, and moved the Discount Rate to its all-time high of 7½ percent.

While the Discount Rate offers important signals to the economy about DBB plans for the economy, the Lombard Rate has been important for setting interest levels in the interbank money markets. As a result, the Lombard Rate has taken on a greater role both as a policy instrument and as a barometer for future Bundesbank policy. The Bundesbank has shifted the Lombard Rate without moving the Dis-

count Rate seven times since 1957, but has never moved the Discount Rate without altering the Lombard Rate.

The Lombard Rate is the rate at which the Bundesbank will loan to banks who have reached the limit of their rediscount quotas. Such a rate is made necessary by the strict adherence of the DBB to its rediscount quotas. Although well-developed overnight money markets now help to perform some of the tasks of the Lombard Rate, it maintains its significance as a leader of interest rates in this market.

The Lombard Rate is generally held at 1 percent above the Discount Rate, although it has begun to depart from that rule more frequently in the last few years. In October 1980, the difference between the two rates stood at 2 percent, with the Lombard Rate at an all-time high of 9½ percent. The farthest these two rates have even been seperated is 3 percent, during the 1969 liquidity crisis when the Bundesbank was braking hard against foreign inflows of capital. The lowest these rates have been separated by is one-half of 1 percent in January 1979.

Because of the Lombard Rate's importance in determining general liquidity conditions, there is not a statutory quota for banks in using this facility. As a practical matter, the Central Bank does not grant more than 30 percent of a bank's discount quota in Lombard advances, and these advances can only be made against securities held by the banks.

While Lombard Rate policy has tended toward small shifts, extreme movements have been tolerated when the Bank considered them necessary to stabilize conditions in the economy. The two most extreme movements came back to back in the mid-1970's. In the first instance, the DBB suspended the Lombard facility, except for dire need, in an effort to restrain massive speculative capital inflows. Partly in response to the liquidity crunch which developed from DBB policies and partly due to unwise financial speculations, a series of banks was closed in 1974, starting with Herstatt ID in July. The Bundesbank immediately reinstated the Lombard Rates, and announced that no bank would be refused money necessary to remain solvent.

The overall gradualness of change in these two interest rates, broken by rare extreme shifts, presents the two faces of the Bundesbank in clear light. While its basic purpose is to promote monetary stability in the medium term, making it easy for businesses, unions, and investors to make plans, its success depends on the occasional flashes of willingness to make its policies stick by whatever means necessary.

Liquidity Management

The quotas and ceilings are effective and frequently used medium-term instruments of the Bundesbank. Their existence is made necessary by the seriousness with which the Bank takes its role as leader of last resort. It will not refuse money to a bank, as long as the bank has not exhausted its available quotas and ceilings. Since the DBB does not play a discretionary lending role, it must establish limits to its facilities at the outset.

Although the Bank is, in principle, able to set individual quotas and ceilings for credit institutions, it rarely does so. Quotas are normally established on the basis of coefficients that vary by size and type of

institution. Although the exact details of these quotas are not published, there is a general formula for discount quotas. When the Bundesbank announces changes in these quotas, it does so in application to all credit facilities and as a percentage of the current quotas.

The Lombard ceilings have usually been informal limits, allowing banks to surpass their discount quotas by 20 to 30 percent. A few instances of explicit limits have occurred; most recently between September 1979 and February 1980, when the DBB placed a cap of 15 percent of the discount quota for Lombard availability.

Reserve requirements are a finely honed set of selective policy instruments at the Bundesbank's disposal. Through them, the DBB can reach down to influence small sections of the banking system. Used together with the rediscount quotas and Lombard ceilings, they form an effective liquid control mechanism.

The reserve formulae changed once in the 1970's when some of the measures used since December 1970 were altered or dropped as of March 1977. Since both sets of rules have played a large part in DBB regulation during the decade, the earlier set will be presented, with the alterations noted afterward.

The following categories were used to determine reserve ratios:

(1) Place of residence for depositor: Nonresident liabilities are, on average, subject to higher reserve ratios than are similar liabilities to residents; the maximum reserve ratio for nonresident depositors is 100 percent.

(2) Type of deposit: Reserve requirements decrease as we move from sight, to time, to savings deposits, respectively. The maximum reserve ratios are: 30 percent for sight; 20 percent for time; and 10 percent for savings deposits.

(3) Size of institution: The larger the institution, the higher the reserve requirement on otherwise identical liabilities. Four categories were established, based on the total liabilities subject to reserve requirements:

Class 1.—DM 1 billion and over.

Class 2.—Less than DM 1 billion, but equal to or more than DM 100M.

Class 3.—Less than DM 100 million, but equal to or more than DM 10M.

Class 4.—Less than DM 10 million.

(4) Nonresident liability excess growth: From time to time, in an effort to stave off international capital inflow, the DBB has required higher reserve ratios for growth patterns of nonresident liabilities above a bank's average growth pattern for such deposits.

(5) By location of bank: Those banks whose main place of business was in a town without a branch of the DBB received a reduction in reserve requirements.

From March 1977, a series of changes took place in these procedures. The differentiation of reserve requirements by location of bank (Category 5, above), was dropped entirely. The bank size categories were collapsed from four to three, and the method of calculation was changed from one based on total size of institution to one that levies higher reserve ratios as liabilities grow, regardless of the total size of the institution. For now, the lowest reserve ratios apply to the first 10

million DM liabilities, a higher rate to the next 90 million, and the highest rate to all liabilities above 100 million DM.

The complexity of the instrument array and ability of the DBB to select targets using this system can only be understood by seeing the range of movements made by the Bank in the last few years. Reproduced below is the Deutsche Bundesbank's summary of reserve ratios since the change in procedures in March 1977. This table contains movements in all of the current reserve ratio categories, including a period in which penalty reserve ratios for excess growth of nonresident liabilities were invoked.

TABLE IV-2.—*Liability requirements*

% of liabilities subject to reserve requirements

Applicable from	Liabilities subject to reserve requirements to residents: Sight liabilities, Stage on the progressive scale 3: 1 DM 10 mn and under	2 DM 100 mn and under, but more than DM 10 mn	3 more than DM 100 mn	Time liabilities, Stage on the progressive scale 3: 1 DM 10 mn and under	2 DM 100 mn and under, but more than DM 10 mn	3 more than DM 100 mn	Savings deposits, Stage on the progressive scale 3: 1 DM 10 mn and under	2 DM 100 mn and under, but more than DM 10 mn	3 more than DM 100 mn
1977 March 1	9.35	12.7	14.9	6.6	8.8	10.45	6.15	8.4	8.8
June 1	8.9	12.05	14.15	6.3	8.4	9.95	5.85	8.05	8.4
Sep. 1	8	10.85	12.75	5.65	7.55	8.95	5.3	5.45	5.65
1978 Jan. 1	8	10.85	12.75	5.65	7.55	8.95	5.3	5.45	5.65
March 1	8.85	11.7	13.75	6.1	8.15	9.65	5.7	5.9	6.1
June 1	8.95	10.9	12.8	5.7	7.55	9	5.3	5.5	5.7
Nov. 1	8.75	11.85	13.95	6.2	8.25	9.8	5.9	6	6.2
1979 Feb. 1	9.2	12.45	14.65	6.5	8.65	10.3	6.05	6.3	6.5
1980 May 1	8.45	11.45	13.45	5	8	9.45	5.6	5.8	6
Sep. 1	7.65	10.3	12.1	5.4	7.2	8.5	5	5.2	5.4

Liabilities subject to reserve requirements to non-residents

Sight liabilities	Time liabilities	Savings deposits	Growth of liabilities: Sight liabilities	Time liabilities	Savings deposits	Explanatory notes on the growth reserve regulations	Applicable from
14.x	10.45	6.6	no special ratios				1977 March 1
14.15	9.95	6.3					June 1
12.75	8.95	5.65					Sep. 1
20	15	10	80			Additional reserve ratio for growth over the average level during the period from September 16 to December 15, 1977	1978 Jan. 1
20	15	10	80				March 1
12.8	9	5.7	no special ratios				June 1
13.95	9.8	6.2					Nov. 1
14.65	10.3	6.5					1979 Feb. 1
13.45	9.45	6					1980 May 1
12.1	8.5	5.4					Sep. 1

As many commentators on the DBB have remarked, including the Bank's own officials, open market operations are best viewed simply as adjuncts to Bank policy which is mainly directed by use of the rate and liquidity management techniques discussed above. Since the scope of open market operations is limited—though expanding—in Germany, the Bundesbank can use a change in rate on its short-term paper or other government bills to display a concern for the movement of capital markets without greatly changing the liquidity of the system.

Such a demonstration occurred in October 1980 when the Bank wanted to demonstrate its awareness of an extreme liquidity crunch it would have liked to ease, but could not. The DBB was faced with large capital outflows to the United States and the United Kingdom because of high interest rates in these countries, and with a quickly developing recession within Germany. The Bank ideally would have lowered interest rates, signaling an easier money policy. It felt unable to risk the lower rates in this case for fear that they would increase

the capital outflow, and add to the country's unusual and disturbing current account deficit. For this reason, the Bank maintained its high interest rates, while dribbling liquidity into the market as a show of concern.

The exchange outflow and current account deficit of the Federal Republic is the converse of the problems it faced throughout the early 1970's when massive capital inflows and bulging trade surpluses made Germany the target of speculators, and the object of anger for many of its OECD and EEC partners. At one point in 1968, this anger boiled over to cause Britain's Prime Minister Wilson to remark that if the Germans failed to upvalue the Deutsche mark he questioned the future security of West Berlin. It was a remark that could not have been more pointed at a national obsession.

Both the problems of the early 1970's and those of the current time are a result of Germany's fervid avoidance of exchange controls. Not only do such controls strike at the heart of the country's free market ideology, but they are tainted through their use under Hitler.

One of the most ferocious political battles about economic issues in the last decade centered on a requirement that West German corporations keep 50 percent of any overseas loan they acquired in non-interest-bearing accounts with the Bundesbank. By going abroad for loans, corporations were virtually nullifying the effect of DBB tight money policies. The fight led to the resignation of Finance and Economics Minister Schiller. This resignation was shocking for its suddenness and bitterness, as well as for its timing, 3 months before a national election. But its occurrence is an indication of the strong emotions that direct controls of any sort evoke from German politicians.

The Bundesbank has established a series of indirect mechanisms designed to give them some control over the flow of capital across the country's borders. Beside the reserve requirements detailed above, the Bank has an active swap policy, offering to buy back foreign currency at especially favorable rates in the forward currency markets. In addition, the government can choose to support DBB attempts to clamp down on foreign capital inflow by prohibiting interest payments on nonresident deposits. When it chooses to do this, it must also control the purchase of fixed-interest securities by foreigners or money simply moves to those facilities.

The restraint of Federal Republic politicians in not imposing elaborate direct exchange control measures is an important indication of the depth of their commitment to free-market incentives rather than command economy directives. Capital flow problems have been almost overwhelming at times for this country, but, to date, the authorities have preferred the less effective incentive measures to the direct control measures other countries have employed.

Monetary Control

The intermediate target at which all these policy instruments are formally aimed is the growth rate of Central Bank Money Stock. But, one point must be made at the outset: the growth of Central Bank money has not become the sole concern of the Bundesbank by any means.

The Central Bank views the control of monetary growth as part of the complex of tools it can use to influence the planning environment

for all other sectors of the economy. A stable growth in money supply affords great advantage to individuals making investment or wage decisions. Stability is the raison d'etre of monetary targeting and not a theoretic conviction that by controlling the money supply per se major problems in the German economy can be solved. The Bank, in answer to the House of Commons, wrote:

> The paramount importance accorded to the Central Bank money stock as a monetary indicator is based not on any specific analytical tenet but rather—in addition to economic factors—on political and psychological considerations.[5]

The Federal Republic was the first major OECD country to begin publication of monetary aggregate targets. This, together with its success in controlling inflation, has made it a frequently referred to case of successful monetarist policy. On the evidence, however, monetarist theorists would be wise to think twice before using Germany as an example of their theory. Table IV–3 frames the discussion, showing the transition to monetary targeting in Germany compared with that in other OECD countries.

There are two questions which need to be answered about the Federal Republic's targeting: first, why did the Bundesbank decide to change to money stock targeting; and, second, why did it choose the aggregate of Central Bank money. rather than more obvious and useful aggregates such as M1 or M2?

TABLE IV-3.—MAJOR OECD TRANSITIONS TO MONETARY TARGETING

[In percent]

Country, aggregate, and projection period	Target	Outcome
Germany:		
Cent al bank money stock:		
End 1974–end 1975	8	10.0
Average 1975–1976	8	9.2
Average1976–1977	8	9.0
Average 1977–1978	8	11.5
1978 Q.4–1979 Q.4	6–9	6.3
1979 Q.4–1980 Q.4	5–	[1] 4.8
1980 Q.4–1981 Q.4	4–7	
United States:		
M1/M2:		
March 1975–March 1976	5–7.5	5.0
	8.5–10.5	9.6
1975 Q.2–1976 Q.2	5–7.5	5.2
	8 5– 0.5	.5
1978 Q.1–1979 Q.1	4–6.5	4.8
	6.5–9	7.1
United Kingdom:		
Sterling M3:		
Fiscal year ending April 1977	9–13	7.8
Fiscal year ending April 1978	9–13	14.9
Fiscal year ending April 1979	8–12	11.4
Fiscal year ending April 1980	7–11	11.0
April 1980–September 1980	7–11	31.0
Japan:		
M2:		
1977 Q.3–1978 Q.3	11–12	12.0
1977 Q.4–1978 Q.4	12	12.6
1978 Q.1–1979 Q.1	12	12.2
France:		
M2:		
December 1976–December 1977	12.5	13.9
December 1977–December 1978	[illegible]	12.3
December 1978–December 1979	11	11.8

[1] Estimate.

Source: OECD.

[5] Memorandum by the Deutsche Bundesbank. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, vol. 2, p. 17.

The framework for publication of a monetary aggregate was established 7 years before the program began, when then-Economics Minister Schiller began to keep all sectors of the German economy briefed on developing trends in, and government plans for, the economy. Schiller and other Ministers published aggregate targets for such things as unemployment and inflation, as required by the 1967 Law to Promote Stability. With the law came an activist government role in the economy. While this did not mean the beginning of a command economy, it did mean that the government would publish its targets and projections in yearly reports, as well as promote meetings of business, labor, bank, and government officials to help provide a consensus on actions needed to keep the economy strong. This was the founding of a policy which Schiller dubbed "concerted action" and which was to help lead Germany through the first oil shock in relatively fine style.

Developments in the economy during 1974 furthered the transition to monetary targeting. The first and most pressing problem was the general uncertainty created by the 1973 oil shock. Coupled with that were 2 years of wage negotiations in which settlements set postwar records. A wage-price spiral seemed to be in the offing, and strong action was necessary to halt inflationary expectations before they set in. Nothing would be better suited to moderate the atmosphere for wage and investment decisions than a stark announcement of limits the Bundesbank planned for economic growth in the coming year. Since it was a new instrument, it could not be discredited by the economic performance of 1973 and 1974, and a dramatic new policy would attract attention throughout the country.

Reinforcing the psychological value of money stock targets was the virtual disappearance of "free liquid reserves" held by banks. The DBB defines free liquid reserves as "excess reserve balances, open market paper which the Bundesbank has promised to purchase, and unused rediscount quotas." Because of the extremely tight liquidity situation the bank had imposed as it tried to prevent the cost of energy and wages from being passed through into price increases, banks had reduced these liquid reserves by well over half from 1972 to 1973. The problem was that free liquid reserves had been the aggregate employed by the Bundesbank as an intermediate target. Their disappearance created problems for the credibility of this policy.

The other major external factor affecting the timing of this transition was that the DBB had just been released from its requirement to maintain the then-surging Deutsche mark within the rough limits of the 1971 Smithsonian agreements. Once floating was allowed, the Bundesbank felt more confident of controlling the money supply without the destabilizing effects of having to purchase and sell large amounts of foreign currencies.

While the above-mentioned economic and political factors were vital to this transition, it cannot be maintained that monetarist ideology had no part in the decision to move to money stock targets. Bundesbank officials say that the monetarist theory held powerful sway in the early 1970's within the bank. Following the guidelines, a decision was made to use a version of the monetarist's "high-powered money" for their published monetary aggregate.

These same officials, however, caution against an overemphasis on the ideological content of their target, noting that the central bank

money definition was—and is—viewed as an experiment, and that controlling the money growth rate is not the sole concern of the Bank. The experimental nature of this construct can be seen with a look back at Table IV–3. Here it is obvious that both the projection periods and the nature of the targets have changed considerably since their introduction 6 years ago. The reasons for these changes will be detailed below. For now, it is enough to note that the changes have occurred, and that, if necessary, they will continue.

The aggregate chosen by the Bundesbank for targeting is called the Central Bank Money Stock (CBM). CBM is defined as the sum of notes and coin in circulation among the nonbanking sectors, plus the banks' reserve requirements at a constant ratio. The upshot of this is that it has structural similarities to M3 aggregates.

The reserve requirement component of this equation is a hypothetical level of reserves, based on the requirements of January 1974. At this time, the average requirement for sight, time, and savings deposits were 16.6 percent, 12.4 percent, and 8.1 percent, respectively (roughly a 4:3:2 ratio). Thus, CBM measures the reserves the banks would be holding if those requirements were still in effect. As of July 1980, the average reserve requirements were: 11.9 percent for sight, 8.6 percent for time deposits, and 5.9 percent for savings; making for 5-, 4-, and 3-percent difference, respectively.

CBM similarity to M3 offers several advantages, including its closeness to "high-powered money." For one thing, the Bundesbank officials believe that its broad-based definition, including all their normal bank liability categories, makes it less sensitive to portfolio adjustments among the standard deposit categories in response to relative interest rate changes. This obviously makes CBM a less volatile measure than M1 or M2.

Another advantage of the definition, according to Bundesbank calculations, is that demand for CBM bears a relatively fixed relationship to nominal GNP. The Bundesbank's econometric studies indicated that, from the first quarter of 1964 through the first quarter of 1975, the demand for CBM and nominal GNP growth showed a one-for-one correlation. Although some studies since the introduction of CBM have challenged this relationship, especially in the period after the introduction of CBM as a published target, the perceived relationship of CBM and nominal GNP was crucial to establishing the final definition of CBM.

The major difference between CBM and high-powered money is that high powered money would consider the actual reserves of the banking sector while CBM considers the hypothetical reserves fixing the regional reserve ratios at constant January 1974 rates. The Bank maintains that, while this may be bad monetarist theory, it is essential to the real purpose of the experiment in monetary targeting.

By employing frozen requirement ratios, CBM focuses attention on the actual creation of money by the Bundesbank. In addition, it creates a stable and continuous measure of the money stock growth from 1974–75 to the current time.

The final consideration of the Bank in establishing its definition of CBM was public acceptance of the new measure. A past president of the Bundesbank noted that one of the crucial elements in determining the nature of the published monetary aggregates was that it offer a

target and a method of calculation that could be clearly understood by all citizens. The function of CBM in helping to provide a dependable climate for investment decisions can only be served if the various sectors of the economy, including both businessmen and labor leaders, understand the nature and purpose of monetary targeting. Furthermore, planners in all areas must be able to work with it, depend on it, and predict how Bundesbank pronouncements of targets will affect their future plans.

While the components of the CBM are easily understood and just as easily measured, the mechanics of monetary targeting and the way such targeting fits into the overall scheme of Bundesbank policy is less clear.

The overriding goal in setting the CBM targets, from the Bundesbank's perspective, is to provide a relatively smooth pattern of growth for the economy.

When the DBB decided to publish targets, it set 1-year intervals for the announcement of new targets. There was pressure both for shorter and longer term announcements, but neither direction was deemed sufficiently useful for Bundesbank goals. It was feared that short-run targets could require massive DBB intervention to hit the goals on a regular basis. The other option—to allow short-run targets to be missed consistently—would undermine CBM credibility and destroy its stabilization possibilities.

On the other hand, the Bank does not feel that any institution is capable of predicting the economy's movements, domestic and foreign, for periods longer than 1 year, if that. During the late 1960's, the federal government, under Minister Schiller, posted 5-year plans for aggregate economic variables only to be forced into adjusting those plans each year. The effect was yearly targets, with the lessened credibility that comes from having to recant on predictions.

In fact, the Bank has discovered that even 1-year targets are too long to be set accurately, and has moved to a two-tiered announcement procedure that incorporates the stable decisionmaking environment of 1-year targets, with the accuracy that comes from shorter term projections. As a result, the Bank announces a range within which it will allow CBM to grow during the coming year, and, midway through the year, refines that prediction by announcing at which end of the range it will aim.

The point in each year at which measurement of money stock growth is taken is as much a result of successive experimentation as is the length for which targets are predicted. When the targets were first published in December 1974 (for December 1974 to December 1975), DBB shot at a specific growth rate (8 percent). They overshot that goal by 2 percent. The Bank concluded that December was a bad month on which to base its growth statistics since currency in circulation figures for that month are unrepresentative of the other 11 months.

After 1975, the Bank shifted its target to entire-year averages for CBM growth. This lasted for 3 years. The Bank was eventually convinced that averages for the entire year were too cumbersome and failed to reflect policy quickly enough. The system in effect at the time of this writing targets the growth of CBM from the fourth quarter of

one year to the fourth quarter of the next year. This, Bank officials believe, avoids the errors of both the two previous measurement periods.

The other major change in calculation moved the target from a single point (usually 8 percent) to a range (6 to 9 percent in the first year of the new policy), with a midyear refinement to indicate which part of the range the DDB will try to hit.

The situation which precipitated this change is a perfect illustration of the pragmatism which has informed the Bank's policy decisions throughout its monetary experiment. In 1978, the Bank targeted a CBM growth rate of 8 percent for the year. At year's end, CBM had grown by 11.5 percent. Through it all, the DBB remained committed to stability in other areas of the economy, deliberately sacrificing its chances of hitting the 8-percent target.

The growth occurred as the Bank tried to cope with a surge of speculative demand for the Deutsche mark. If it did not adopt an easy money policy, the Bank knew that it would halt the strong investment recovery then underway. On the other hand, easy money policies would destroy any chance of hitting the 8 percent target. The Bank decided to unleash the CBM for the year and concentrate on sustaining the economic recovery. In addition, it wanted to keep money market interest rates near the DBB's low bank lending rates of 3 to 4 percent, and to maintain adequate free liquid reserves in the banking system. In all these goals, the DBB succeeded, at least reasonably well.

The Bank sought to explain its 3.5 percent overshooting in every available public forum, and to emphasize its concentration on the overall stability of monetary conditions. It announced the end of point targets with its 1979 CBM predictions. As the Bank explained to the House of Commons:

> In one extreme situation in which exchange rate movements bearing no relation to the underlying economic situation threatened to endanger the ultimate objectives of monetary policy (i.e., growth and employment) in 1978, the Bundesbank was forced to temporarily disregard its annual monetary growth target. This is one of the reasons why the monetary growth target has been formulated in terms of a range since 1979. . . .

The Bank authorities are now convinced that this change has produced satisfactory results. They sought to combine a more realizable forecasting arrangement with strongly worded advice that the range would be the actual guidelines for CBM growth in the coming year. No overshooting would be allowed. So far, the new system has been a success.

The Bundesbank uses information from its econometric models, other government agencies, and direct or indirect contact with banks, business, and labor in establishing its target ranges for the year. While the "concerted action" plan of formal meetings among these sectors has broken down, informal contact remains a strong part of the target-setting process for the DBB.

The formal econometric model used by the Bank employs four aggregate econometric indicators to establish the year's preliminary target ranges. They are:

(1) The expected rate of growth in productive potential in the year ahead;

(2) The predicted rise in capacity utilization;
(3) The unavoidable rise in the price level; and
(4) Any necessary adjustments due to the cyclical phase of the economy.

Once these predictions have been made, the Bank meets with representatives of the federal government, particularly from the Ministries of Economics and Finance, to compare projection results. Officials on both sides of these meetings maintain that there have been no great differences in their respective results since the process began in late 1974.

In December, based on predictions which emerge from these meetings, the CBM target is created and published by the Bank. The government publishes its version of economic predictions in a state of the economy message during January.

These announcements are timed primarily to make their influence felt on the year's first round of wage negotiations. Two aspects of the labor situation make the timing crucial. First, German trade contracts run for one year so the authorities must keep inflationary expectations down year by year, if a wage-price spiral is to be avoided. Second, there is a longstanding tradition that the first wage settlement of the year sets the pace for all remaining settlements. The importance of wage talks in DBB target announcements is emphasized in the Bank's statement to the House of Commons:

> Stabilization policy in Germany relies on the basic consensus between management and labor and on their sense of responsibility. To help entrepreneurs and trade unions to inform themselves about the noninflationary behavior desired, the federal government and the Bundesbank announce objectives for the key economic variables as well as a monetary growth target.[6]

A second, and clearly subsidiary, advantage of these announcements' timing is that they occur shortly before the annual EEC foreign ministers meeting in Brussels, and provide a predefined negotiating position for representatives of the Federal Republic.

With the target range set in December, the Bank refines it in midyear, using all the information made available to it since December. Both years of this projection process have seen the refinements directed to the lower end of the target range.

In concluding the CBM discussion, it must be reemphasized that the Bank does not view CBM growth as an end in itself. The Bank is bound to consider its final goal of monetary stability above all else. In doing this, the Bundesbank is not unwilling to abandon particular monetary targets under the impress of economic conditions. In doing so, however, it insists on explaining fully the reasons for its actions and it feels that such explanations enhance rather than weaken its power. As the Bank wrote to the House of Commons:

> In the end . . . the decisive factor is the credibility of the arguments which a central bank uses when exploiting the flexibility inherent in its control of the money supply, regardless of whether it revises a target, announces a new position within the target range, or simply deliberately tolerates a failure to meet the target.[7]

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[6] Memorandum by the Deutsche Bundesbank. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, vol. 2, p. 16.
[7] Memorandum by the Deutsche Bundesbank. Memoranda on Monetary Policy. Treasury and Civil Service Committee, House of Commons, Session 1979–80, vol. 2, p. 17.

The Banking Sector

The Federal Republic's banks are characterized by concentration, provision of universal services, and close ties to business. While banks do serve as a conduit for Bundesbank policy, their relationship to the DBB is largely one of follower, with occasional outbursts of grumbling and attempted end-runs around Bundesbank strictures. The banking sector's relationship with business is quite different. The commercial and savings banks in Germany play a large role in developing the industrial base of the country through their influence on corporations' investment plans. They do this through their roles as capital providers, stockholders, and board members for business.

Before turning to these characteristics, a brief look at the structure of the banking industry in the Federal Republic will help put this sector's power in proper perspective. In particular, the dominance of a few large banks, and the universal nature of services that all banks are allowed to provide, must be discussed.

The banking system in Germany may be divided into universal banks and all others. The largest banks are all universal banks, a category composed of the commercial and savings banks. The rights and privileges of all these banks are the same. Universal banks can receive deposits, lend money, underwrite stock transactions, buy and sell securities, buy and sell bonds, hold and vote by proxy the securities of its depositors, and manage portfolios.

The range of activities in which German banks can engage makes a simple recitation of their balance sheets inadequate to capture the extent of influence of the big three, and a few other major banks, over the course of industrial investment. While the banks have maintained that, individually, their powers do not amount to unwarranted control, the sum of these powers is greater than its parts.

There are over 3,000 banks in Germany, but the three largest control about 10 percent of the banking business by volume. This figure drastically understates the big three banks' role in German industrial policy. The three banks sit on the supervisory boards of 70 of the top 100 companies in Germany. They own stock in such German stalwarts as Damlier-Benz, AEG-Telefunken, and many others. Their influence over German industrial life is profound.

The big three—Deutsche Bank, Dresdner Bank, and Commerzbank—are private commercial banks. They are the only ones considered to be "national banks" in federal reports. Other commercial banks are known as regional and local banks, whether or not they operate nationally and internationally. The domination of the big three is so complete in the commercial bank category that they and their formally independent subsidiaries in Berlin are listed separately in Bundesbank reports as the "big banks."

Beside the commercial bank sector, there are the savings banks and their Central Giro Institutions. The major difference between commercial banks and savings banks is that most of the latter are incorporated under public law. Thus, the local authorities have put up some of the capital to open the bank, and/or assume responsibility for liabilities. Savings banks are run as private banks, with the same range of transactions allowed to them as are allowed to the commercial banks.

The Central Giro Institutions, of which there are 12 (1 for each state and 1 in Berlin), are central depositories for the savings banks in their districts. Most Giros are owned in part by the Lander governments in which they were founded and, in part, by the savings banks which keep liquid assets on deposit with the Giros and look to the Giros for help with loans they are not able to underwrite.

The federal government has attempted to stimulate competition in the banking industry during the last decade by unfreezing interest rate ceilings, and by allowing the savings banks and Landesbanks to expand their field of operations to become truly universal banks. Most Landesbanks have taken the challenge: the leaders in growth have been in West Deutsche and Hessiche Landesbanken. Some observers believe these banks have grown too quickly and, indeed, past presidents of both banks have resigned after foreign exchange transactions which led to losses.

Below the level of universal banks, there is a bewildering variety of institutions. These mainly deal with small businesses and crafts, or with mortgages and consumer finance. The largest component of this group, the Credit Cooperatives, offer services to the small and independent businessman in much the same way that commercial and savings banks do to medium- and large-scale enterprises. However, their impact on industrial or monetary policy is slight compared to that of the larger banks.

The following table shows the size and market share of the various sectors of the banking system. (See Table IV–4, below.)

TABLE IV-4.—SIZE AND MARKET SHARE OF THE VARIOUS SECTORS OF THE BANKING SYSTEM

[In millions of Deutsche marks]

Banking system	Number of institutions reporting, 1980	Total volume, 1980	Percentage share, 1979, of total domestic volume
All banking groups	3,356	2,167,211	100.0
Commercial banks	247	514,307	23.7
Big banks	6	216,259	9.9
Regional and other commercial banks	100	228,259	----
Foreign banks	55	37,752	----
Private bankers	86	32,411	[1] 13.8
Central Giro institutions	12	359,583	16.3
Savings banks	599	477,772	21.9
Central institutions of credit:			
Cooperatives	10	84,215	----
Credit cooperatives	2,293	231,676	[2] 14.4
Mortgage banks	39	294,441	13.4
Private	25	184,930	----
Public	14	109,511	----
Installment sale finance institutions	124	25,986	----
Banks with special functions	17	139,868	[3] 7.5
Postal Giro and postal savings institutions	15	39,369	----

[1] Including all nonbig bank commercial banks
[2] Including central institutions.
[3] Installment sales and banks with special functions. Postal banks account for residual.

Sources: Deutsche Bundesbank Monthly Report. Herbert Wolf: "30 Jahre Nachkriegsentwicklung Im Deutschen Bankwesen," 1978, Hase Hase and Koehler verlag, Mainz: figures updated.

Banks and Business

The relationship between banks and the private business sector in Germany is extremely close. The banks have gained extensive leverage over business through four roles that have become a central part

of private-sector planning: (1) They supply the necessary funds for investment; (2) they offer export assistance; (3) they own and control a large number of shares in private corporations; and (4) bank managers hold a large number of supervisory board seats.

Companies rely on loaned capital to a much greater extent in West Germany than in the United States. This reliance is caused by the lower average return to capital and less-developed stock market in the Federal Republic. Therefore, banks have more control over, and a greater interest in, the plans of a corporation than would otherwise be the case.

The advice on exports given by banks is magnified in importance by the greater export-dependence of West German corporations. Twenty-five percent of Germany's national production is earmarked for export, and many of these products come from medium-sized firms. There is, therefore, a need for more sophistication in international transactions than most companies of that size can afford. The banks, particularly the large commercial and savings banks, offer help in this area, and companies rely on them to do so.

The investment and export roles of banks, combined with their direct participation in decisionmaking, leads to a relationship between banks and businesses that is called "house banking." Although larger companies often deal with many banks, most medium- and small-sized firms concentrate all their service requests with one or at most a few banks.

Ownership and control of corporation stock by German banks is one of the two major differences between American and German banking practices that is coming under increasing criticism within the Federal Republic. Bank ownership of companies is an integral part of the German economic scene. The basic claim made in favor of such participations is that banks can be of greater help and are less likely to desert German corporations because of them.

There are four levels of participation and control: (1) There is permanent participation, which is tantamount to ownership; (2) there is stock holding; (3) there is proxy holding, which means that a consumer of the bank has put stocks on deposit with that bank and that, after clearing a set of procedures, the bank can vote the stock; and (4) there is loaned stock whereby one bank can lend its voting rights in stock to another bank.

The first tier of participation is outright ownership of businesses and other banks. This is an area in which the big three banks, along with a few large Giro Centrals, have nearly complete dominance within the banking community. German banks may own other German banks, German companies, or foreign enterprises. The only limit to this ownership is a regulation in the German Banking Act which limits permanent participation by German banks in companies to a value which equals 100 percent of the bank's capital. The intent of the act was to keep the banks stable by limiting their exposure.

The legislative intent of this act has been largely circumvented, however, as the banks have chosen to interpret the clause as if it applied only to ownership of real estate and fixed capital and not to ownership of stocks. Therefore, while the outright ownership of companies is limited, participation through stock ownership is not

controlled at all. The banks' rationale for not counting stock ownership under the Banking Act clause is that such holdings are liquid enough not to pose a danger for the bank's overall soundness. The government's investigatory committee on banking practices in the Federal Republic, known as the Gessler Commission, has suggested that the Banking Act be changed to rule out stockholding over 100 percent of the capital value of the bank, and this may be done by Parliament in 1981.

This debate also entails a politically sensitive point relating to ownership of 25 percent of a company's stock by a single bank. Under German law, ownership of 25 percent plus one share in any company's stock constitutes a "blocking minority." Any holder of this proportion of a corporation's stock can block major decisions put to the vote of the stockholders. Such ownership is part of the second tier of control which banks can exercise over companies, but stock holding can be done by banks on any scale, and the number of companies in which banks own less than 25 percent is considerably greater than those in which they own 25 percent or more. These smaller holdings still give banks a right to vote at shareholder meetings and provide a necessary condition for banks to take a seat on the corporation's supervisory board.

There has been strong pressure from nearly all sides to get the banks to scale down their stock participation in German companies. The Gessler Commission on the banking industry reported in May 1979 that there were compelling reasons to limit bank holdings to 25 percent plus one share in any given corporation. Other limits have been suggested by the Social Democratic Party (5 percent), and by the Economic Minister, Count Lambsdorff (10 percent).

The banks have offered to voluntarily scale down their ownership in companies to the 25 percent plus one share suggested by the Gessler Commission. This offer was made for two reasons: first, it is an attempt to head off almost certain legislative action in the 1981 session of the Bundestag where, with the Social Democrats and Free Democrats in control, a lower limit is feared. Second, the limit proposed by the banks would still be enough for banks to maintain their blocking minorities in many companies.

The third tier of bank control over corporation stocks comes through banks' ability to vote, by proxy, stocks on deposit with them. Before each stockholder's meeting of a company in which a bank's depositor holds shares, the bank must send a card to the customer asking him whether he wishes to be represented by the bank at this meeting. If the customer does not accept the bank's offer, then it is assumed he will represent himself. If the customer says he does want the bank to represent him, the bank must send him a complete description of all issues on the meeting's agenda including a complete list of proxy issues. This notification is the most important and controversial, since it contains a negative option card. If the bank does not receive specific instructions on how to cast his ballot, it votes as if it owned the stock. Since 85 percent of all privately held shares are on deposit with banks, this is a potentially potent weapon.

The fourth and final tier of bank control over stock comes from a bank's ability to vote stocks which it neither owns nor has on deposit.

It is possible for one bank to lend another its proxy rights. This communalism is usually practiced when a vote is of particular importance to one bank, and of little or no importance to the other.

While each of these four tiers may account for a small proportion of the shares to be voted in German companies when they are combined, the results are startling. In 74 of the nation's largest corporations, banks voted 63 percent of the shares at annual meetings. The big three voted 35 percent by themselves. The banks vote 70 percent of the shares of the 425 largest corporations, accounting for three-fourths of the value of all issues on the stock exchange.

Each tier of this stock control arrangement is under fire. The first two (wholly-owned subsidiaries and stock ownership by the banks) face proposals to limit ownership by any one bank in any one company and to set overall limits on nonbank ownership by any one bank. The third and fourth tiers were addressed by the Gessler Commission which suggested that rules of good conduct be established to guide banks in proxy voting, and that all loan proxies, by one bank to another, be made public. There are currently no requirements to make these actions a matter of public record.

Banks and Supervisory Boards

The second area of major controversy about the relationship between banks and businesses revolves around bank directors sitting on, and often chairing, business supervisory boards. Governance of German companies is divided between a Supervisory Board and a Management Board. Supervisory Boards deal with questions of major investments, new production techniques, new product introduction, and so forth. Management Boards govern the day-to-day business of the company.

Of the top 400 companies in Germany, 318 have bankers on their supervisory boards. There are 570 bank executives on the boards of these 318 large companies: an average of two bankers on each board. The domination of the big three is displayed once more in this area. The banking industry controls 145 of the 1,480 seats on supervisory boards of the 100 largest German companies. The big three took 65 percent of these seats and 15 seats as board chairmen.

Private Industry

There is no clear industrial policy for Germany, if by that one means a national plan for future investment. The private sector is left to create an industrial policy out of firm-level decisions. Firms make their choices in consultation with banks and unions. They operate in a climate established by the Bundesbank and the government, but ultimately, decisionmaking power rests in the Supervisory Boards.

To get a better picture of industry's decisionmaking, we will first consider the exogenous factors facing corporations in their investment decisions, then take a brief look at the overall sectoral responses to these conditions, and, finally, focus on two cases where massive change in capital and work forces have been needed in the last decade:

steel and shipbuilding. Steel is an example of largely unaided rationalization, while shipbuilding benefited from a substantial government grants program.

German companies find themselves tightly constrained by exogenous factors when considering investment possibilities. The economy is characterized by high production costs and export dependence; two conditions that are not likely to disappear in the medium term. The bright side of this is that the relatively small stock market, and generally lower expectations, allow firms to return a lower rate of profit than is the case with most healthy American firms.

Production costs include the cost of materials and energy, the cost of labor, and the cost of meeting strict environment requirements. Environmental requirements have slowed the pace of industrial development in some cases. For instance, they have brought the domestic construction of nuclear power plants to a halt. German industry uses an average of 6 percent of its capital outlay to meet environmental protection standards compared to the U.S. average of 4.8 percent.

Second, German firms face high labor costs. A recent study by the Dresdner Bank makes it clear that the Federal Republic has perhaps the highest per hour labor costs in the OECD. When supplementary costs such as vacation, health and social security costs are added, only Sweden and Belgium surpass Germany in hourly wage costs.

To the standard unit labor costs in Germany must be added the strong protective measures given workers through antiplant-closing laws which are among the toughest in Western Europe. The compensation due employees in the form of payments, training, and placement, led U.S. steel to abandon a multimillion-dollar steel plant in Lubeck that was in danger of closing, barely a year after the company had acquired it. The corporation sold the plant to its German attorney for one dollar, rather than pay to its workers the amounts required to workers upon closing the plant. The German attorney, in cooperation with state authorities in Schleswig-Holstein, has managed to turn the firm into a profitmaking enterprise.

A final limiting condition of the German labor market is its highly skilled nature. The general unwillingness among workers to perform tasks that are boring, dirty, or unduly repetitive has led to more capital-intensive production methods, and a massive "guest worker" population. These issues will receive greater attention below.

The third category of domestic limitations to investment decisions is the lack of raw materials in Germany. Germany imports over 65 percent of its fuel, and has few mineral lodes outside of coal. Additionally, it is not a particularly suitable country for agricultural purposes. Because of this, Germany has traditionally imported raw and semifinished goods, which are then converted to finished goods for distribution to domestic and export markets.

This lack of raw materials has led Germany, since the turn of the century, to concentrate on industrial production with its Ruhr valley mills turning out a good deal of the European continent's industrial goods. This has led Germany to a position of exporting industrial and consumer products.

The export dependent nature of the economy is a final limitation on industrial investment. Fully 25 percent of German output is ear-

marked for export. This makes the German businessman heavily dependent on movements in the world economy. He must worry not only about his costs, but about the purchasing power of other countries, particularly other EEC countries for which nearly 50 percent of German exports are destined.

The composition of German exports is heavily weighted toward items requiring sophisticated production processes and a skilled workforce. German producer goods exports include items such as whole plants, with Germany accounting for 50 percent of all large factor, construction in the world, excluding such construction in the United States. These sales have been largely to developing countries. Furthermore, Germany is strong in chemical goods and textiles; the Federal Republic exports a greater volume of textiles than any other country. Its consumer goods exports are concentrated in the sectors of high-tech electronics, including computers and audio equipment, and in the transportation field, largely automobiles.

This export dependency is of increasing importance to German industry. But problems are emerging. The foremost of these is the surge of non-Western and developing countries into prime export markets. A trace of irony runs through this challenge as many small countries are coming to the fore using plants built for them by the Germans. Many German industrialists took advantage of the post-oil-embargo wealth of the OPEC countries as they began to establish an industrial base. For these countries, the high cost of labor was no object and the reputation of German quality was sufficient to win Federal Republic firms a large proportion of contracts from OPEC countries such as Iran. This helped to offset a large increase in Germany's 1974 oil bill and to produce record trade surpluses when most other Western countries were in dire straits.

As Germany has since discovered, there is a longer run catch to such short-term construction booms. Once industrial plants are built, they create the capacity to produce domestically much that was formerly contracted to other countries. Combined with this is the growing strength of Korea, Singapore, and Japan in markets where Germany had long predominated. This is particularly true of shipbuilding, steel, and consumer goods such as audio components, cameras, computers, and automobiles.

In short, any product which is produced by labor-intensive techniques will leave Germany far ahead of the non-Western countries in costs. As the price of goods produced in Germany and in countries like Korea continue to diverge, the marginal benefit of higher quality workmanship persuades fewer and fewer buyers to pay the differential and thus to order from German manufacturers. This problem is compounded as the labor forces of these other countries grow increasingly skilled, and the product superiority of German goods becomes less pronounced. Germany is, therefore, beginning to suffer a sustained and structurally based loss in world market share.

As a final insult, the domestic market in Germany has begun to show the same taste for non-German goods as has the foreign market. Having developed a strong export dependence, German business produced far more than domestic consumption could sustain. Unfortunately, as foreign markets have begun to shrink, the domestic market

has also contracted for German-made consumer goods. In the last few years, the structure of imports has changed dramatically. During the fifties, and through the early seventies, most imports were of raw or semifinished goods, which would be turned into finished goods to be distributed domestically and internationally. In 1980, however, fully 40 percent of German imports were in finished goods. Furthermore, merchandise imports alone were valued at 22 percent of real GNP, up from 14 percent in 1970. The most spectacular import market penetration occurred in a sensitive area where German dominance of the domestic market had been nearly complete. After holding steady for nearly a decade, the Japanese share of auto imports rose dramatically in 1980 from 2 percent to 14 percent.

The investment climate faced by German industry cannot be called bright. The problems are immense. There is a fast-developing pincer action of diminishing exports and increasing imports, combined with capital outflow problems generated by high interest rates in the United States and Britain. The Germans find themselves on a narrow ledge of economic health which seems to be shrinking daily.

The problems are not open to obvious solution. And throughout the difficulties runs the government's unwillingness to violate its free-market principles by engaging in massive support programs of the type found in other Western European countries.

The response of German business to these problems is to argue that they have survived other economic problems that seemed hopeless. In fact, through rationalization and innovation, they have survived quite well. Clearly, the future of German investment can go only one way, and that is to explore the outer reaches of process and product innovation. Germany will not suddenly develop raw material abundance or a cheap labor force. Its only hope is to move on to new methods and new products not available from cheaper labor markets. The keys to such progress are "rationalization" and research and development.

Rationalization is the German phrase for nearly all types of production changes designed to increase efficiency or reduce labor costs. To expand the possibilities for new production techniques, mainly those which result in a more capital-intensive or more fuel-efficient process, research and development must be pushed, and German corporations do just that. This has led the Federal Republic to join the United States as a leader in share of GNP devoted to research and development; both countries devote about 2.3 percent of GNP to such tasks. Over the past 15 years, nominal growth of expenditures on research and development has averaged 13 percent per year in the Federal Republic.

Basic Industries: Steel and Shipbuilding

The steel and shipbuilding industries are among the hardest pressed sectors of the West German economy. They do not account for a major portion of GNP or exports, nor of the domestic work force, but the extreme situations in which both these industries have found themselves provide dramatic illustrations of rationalization processes by German companies. The steel industry succeeded in its massive ra-

tionalization plan largely without direct government assistance, while the shipyards have used financial help from the federal authorities, though without direct government intervention in management.

The position of the German steel industry in 1980 is not bright in spite of a successful rationalization undertaken during the 1970's. Its current problems stem from a worldwide slump in steel demand that strikes hard at an industry which exports 46 percent of its produced goods. The dropoff is particularly pronounced in the non-EEC countries that account for 60 percent of German export demand.

The United States and Iran have imported 60 and 70 percent less German steel, respectively. The U.S. slump is due to an antidumping suit filed by American steel companies early in 1980, while the Iran collapse stems from that country's political difficulties. Furthermore, production quotas have been stiffened by EEC order due to price-cutting and demand drops that brought prices down 13 percent in the last year, while costs of production rose by 5 percent.

The 1979 picture for German steel was much rosier. It is 1979 that gives us a true measure of the success of the industry's diversification and rationalization plans. Exports were strong, capacity utilization ran as high as it has since the collapse of demand in 1975 and, through it all, energy use was down.

The steel industry had, by 1979, diversified and altered its product lines to fit the changing shape of world steel demand, taking account of its own high labor costs compared to developing countries and Japan. Rather than stick to the production of basic steel, German steelmills turned to production of semifinished and specialty steel, including coils, rolled steel, and coated sheets. The results of this process were that exports of finished and semifinished steel products rose 21 percent in 1978 and another 4 percent in 1979, while exports of structural steel declined. This type of product diversification, which takes advantage of the capital-intensive character of producing specialty steel, as opposed to basic steel, has helped save the German steel industry from the fate of most other Western European steelmakers.

Increasing the advantages of diversification is the rationalization of production processes during the last decade. Even where German companies have maintained production of basic steel components, they have modernized their production methods considerably. For instance, the production of steel ingots is done increasingly by a continuous casting process that reduces the amount of raw steel needed by 10 percent. Employment of the latest techniques for steel production has been one of the cornerstones of steel's development. The U.S. Department of State reports that in 1979 German raw steel production was accomplished through the following methods: 76 percent by basic oxygen plants, 14 percent by electric furnaces, and 10 percent by open-hearth processes. The basic oxygen plants are far more efficient than open-hearth processes. Through such production changes, total energy use by steel plants has shown a remarkable decline. Total consumption of oil in steelmills was 31 percent lower in the first quarter of 1980 than for the comparable 1979 period, while steel production in metric tons continued to climb.

The final key to the industry's rationalization is gradual reduction of the work force. There was a reduction of over 40,000 jobs in steel

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production between 1974 and 1979. The successful implementation of this program has taken the cooperation of the unions. The union position is eased by strong protections given to workers through German labor laws, and by the willingness of industry to help relocate or retrain displaced laborers. A factor helping smooth labor relations is the aura of fairness that emerged from the fact that the percent reduction of white collar staff was above the average percent reduction in the blue collar staff.

The problems facing steel now that they have adapted to new conditions are still fairly severe. Most estimates give no chance for steel demand to surpass steel capacity until 1985, if then. The new EEC steel quotas are perceived by Germans to be one more instance of punishing their industries for efficiency while rewarding other EEC countries, notably Britain and Italy, for inefficiency. This produced a rebellion late last fall of German steelmakers that brought EEC quota procedures under a harsh challenge and, until the Germans backed off, posed a threat to the entire EEC accord.

The basic problem is the low world demand for steel. With costs up and prices down, and with the German government not supporting its companies through price subventions, investment expenditure by the steel industry is down 50 percent from earlier in the decade. The question that must be faced is how low capacity utilization can go and how long companies can run in the red before the government is forced to step in with aid.

While accurate predictions of such intervention are impossible to make, a hint of the direction that such aid might take comes from the shipbuilding industry. For Western Europe, while steelmaking has had bad times, shipbuilding has been a disaster. There has been a 50 percent manpower reduction in the German shipyards since 1974, and the Federal Republic has been getting a shrinking part of a shrinking world demand for ships. In the first quarter of 1980, while Japan received 55.6 percent of the world orders for ships, Germany received a mere 1.5 percent.

The government did take advantage of an EEC agreement allowing countries to help subsidize shipyards, if those subsidies were used directly for rationalization and reduction of the work force. Although the final plan is too intricate to be recounted here, it amounts to a basic subvention for financing the purchase of a ship from German yards, with the government picking up the difference between an 8-percent interest rate and the market rates of interest, so long as that difference does not amount to more than 2 percentage points. The program is limited to 3 years and is due to run out in 1981, although there is strong pressure on the government to renew it.

The shipbuilding rescue program is interesting primarily for two reasons. First, it has been quite successful, given the circumtances of the world markets and the enormous subsidizations received by shipbuilders in Sweden, Britain, and elsewhere. Second, the government has not directed rationalization methods and different yards have radically different methods to meet their goals. As in the steel industry, shipbuilders fought the new conditions through diversification of products and rationalization of production methods.

Although shipbuilding is a traditional German business, it accounts for only 1 percent of GDP and less than 1 percent of export value. Furthermore, except for the northwestern sea coast states, few jobs directly depend on the country's 110 shipyards. Most of these shipyards are small, and there is widespread agreement that many of them will fail in the next few years. The large yards are a different story, however, and while there is no typical case of a large shipyard coping with new problems, one of the largest, Blohm & Voss of Hamburg, has recovered admirably from the mid-1970's shipping collapse. Much like their major shareholder, the steelmaking giant Thyssen, B&V began diversifying long before most other countries and companies expected anything but a boom in world trade for shipbuilding. Early in the 1970's when large bulk tankers were being constructed throughout Europe, B&V moved away from that trend. As with the more successful steel producers, the company realized it had to turn to specialized ships requiring highly skilled workmanship and ingenious production techniques, rather than producing labor-intensive products like bulk carriers. When the tanker market collapsed after the reopening of the Suez Canal in 1974, and the oil embargo of 1973, Blohm and Voss was in a position to ride out the rough seas. The company has continued to pursue rationalization with a vengeance. The major components of this process were, once again, diversification and reduction of the work force. Since 1975, the company has reduced its man-hour capacity to roughly 50 percent, from a capacity of 4 million man-hours to about 2 million. Combined with this is a significant shift in the composition of the labor force, from workmen to engineers and technicians.

This labor-force shift was accompanied by a shift from production of bulk carriers, and the like, to a wide variety of specialized vessels. B&V's current orders are for such items as offshore oil rigs and naval vessels without weapons. Blohm and Voss has designed a patrol boat whose weapons systems are installed like the components of a stereo. The shipyard delivers a hull with various electronic features in place and holes in the deck to fit weapons systems that are supplied in containers. The advantage of such a ship is that it can replace its weapons systems without entering a dry dock or a port. Damaged weapons can be lifted out by helicopter and new ones installed while the ship is at sea. The result of Blohm & Voss' diversification and rationalization plan is that the company had enough orders, as of October 1980, to keep it running at 100 percent of its man-hour capacity until mid-1982. Still more remarkable is that not one of these orders is for a commercial ship.

It is exactly this kind of innovation and rationalization that keeps Germany without an institutionalized industrial policy.

The Role of Labor

The cooperation of labor in Germany's industrial life is a crucial part of its postwar success. The cooperation, and the social market principles that sustain it, have helped to place the German laborer among the most highly paid workers in the world. Per capita income surpasses that of an American laborer. In addition, the German

worker has great security on and off the job, and social services consume 31.5 percent of GNP. Over the last 12 years, there has never been as much as 5 percent of the work force out of a job at one time and. until the 1974 recession, vacancies generally were greater than the number of people looking for work. All of this was accomplished while real growth in wages and salaries increased by more than 50 percent in the last 12 years.

The role of labor in this development has largely been through its cooperation in restraining wage demands and strikes, as well as its ability to adapt to the increasingly technical training necessary to perform the highly skilled tasks on which German industry depends. A smaller, but growing, role has been played through the mechanism of "codetermination," under which worker representatives sit on Supervisory Boards and Works Councils. Finally, the existence of a large "guest worker" population has provided a work force for less-skilled, lower paying jobs, and these workers have become a permanent part of the labor scene.

Wages, Strikes, and Job Losses

The smoothness of labor negotiations in Germany is well documented, and the effect this relative peace has on industrial development cannot be overlooked. The cooperation has taken three main forms: moderation of wage demands; unwillingness to strike; and toleration of sectoral shifts in the job mix. All of this has taken place with a work force that counts only 30 percent of its number as union members. Without cooperation on all of these fronts, the German corporations, with their relatively thin profit margins, would not have been able to make the changes in production methods and product lines that they have.

The willingness of labor to moderate wage demands has been pronounced enough to cause consternation in even conservative circles. In the late sixties, as Germany was recovering from the 1967 recession, the Economics Minister was forced to scold laborers because of their low-wage demands. He alleged that they were not doing their part to pull Germany out of its slump. Furthermore, in only a few cases during the seventies did suggestions of the Bundesbank or federal government not succeed in moderating labor's wage demands.

The unwillingness of workers to strike is even more notable. Germany has lost less time to work stoppages since World War II than any other industrialized, non-Communist country. Strikes are rare enough that they are national news. One such strike in 1974 by the Public Employees, the first since the war, was sufficient to make Chancellor Brandt fold his opposition to double-digit wage settlements, offering the workers an 11-percent raise. This move set the pace for other settlements, which resulted in one of the two instances of high average wage increases during the 1970's.

The third general area of labor peace has been willingness to cooperate with capitalists when it is clear that a company must reduce its work force. In both the steel and shipbuilding cases, where large numbers of jobs have been lost in the last decade, unions worked with the firms during the transition. Of course, the total number of jobs avail-

able has not decreased in the country due to these layoffs. The training required of workers has simply shifted toward more technical knowledge. Cooperation among governments, businesses, and labor has been crucial in beginning to establish retraining programs to meet these needs. Currently, this is the least successful area of the German labor scene, with the gap between required and available skills growing daily.

The overwhelming emphasis on security and stability that marks the labor movement as well as all other sectors of the German economy may be understood as an outgrowth of German social history and perhaps also of the FRG's status as a frontline state in the Cold War. There is widespread acceptance of the thesis that only through low inflation and strong savings and investment can an economy remain strong. The results have been an inflation rate which peaked at 7 percent during 1973–74, and dropped to 2.5 percent in 1978, with a decade average around 5.6 percent per year. Also, the German average household savings rate is 13 percent of disposable income, compared to 4 percent in the United States.

One institution that has helped to smooth labor relations and supply needed labor for relatively low-skill jobs is the substantial "guest worker" community. Guest workers are foreign nationals, largely employed in the service and unskilled industrial sectors, who have taken jobs that most Germans do not want. The guest worker population has increased from 80,000 in 1955 to its current level of nearly 2 million. Obviously, this presence helps not only relieve the German citizens of unpleasant jobs during boom periods, but helps soften recessions as unemployment is shifted to the guest workers with German citizens taking over the vacant jobs. In 1967, over 400,000 foreign workers were sent home during the short-lived recession. Guest-worker employment rose to 2.5 million by 1973, before 100,000 were sent home after the oil shock.

This practice came under severe criticism, and steps have been taken to secure the guest worker in his position. An unlimited residence permit is granted after 5 years of working in the Federal Republic and guest workers are subject to the strict labor protections that apply to all other members of the Republic's work force. One change in eligibility came after the first oil shock in 1973, when foreign workers from non-EEC countries were no longer recruited, with narrow exceptions. The foreign workers have been a large presence, nearly 8 percent of the total work force for the last decade, and their role has been to allow the average German to take on higher levels of employment than might otherwise have been possible.

Working Conditions

The working conditions of German workers are among the world's best. In pay, security, fringe benefits, and safety, the federal labor laws and the firm level labor contracts largely fulfill the "social market" principle of sharing the benefits from a successful economy between workers and owners, although not equally. In pay, the German worker ranks among the top of the industrialized world. He leads in per capita income. Real wages doubled during the 1970's, while pro-

ductivity increased by 50 percent. The adjusted share of national income to wage and salary earners has remained nearly constant over those 10 years moving from 63 percent to 64 percent.

In fringe benefits, he surges further ahead. The social security arrangements include complete health benefits, unemployment and disability benefits, strong pension benefits, and rent and child allowance for low wage earners. These are the government minima. Most labor contracts call for additional benefits that are negotiated by each plant's labor representatives.

The vacation time of German workers is generous by American standards. The government mandates 18 working days of vacation a year. This is not widely regarded as a ceiling. In 1979, the average labor contract called for 30 working days or 6 weeks of vacation a year.

Job security is another area of strength. There are three possible things that can endanger a worker's earnings: short time, layoffs, and dismissal. Short time helps spread the burden of a shallow recession evenly among the work force. In implementing a short-time program, the employer reduces the hours worked for a substantial part of the work force rather than lay off a smaller number. There appears to be little or no opposition among workers to distributing the burden in this fashion. A further aspect of short time is that it helps to keep unemployment figures low. For instance, in the most severe period of recession during the 1970's, while unemployment rose to only 4.4 percent, the number of short-time workers rose from 36,000 in 1973, to 639,000 in 1975, an eighteenfold increase.

Dismissals, which are more threatening to the average worker's well-being, are not easy to accomplish. For all employees who have been working continuously 6 months or more, including foreign workers, the employer must prove that dismissal is brought about by:

> Reasons which lie in the person or in the behavior of that person or in the urgent interests of the business, which stand in the way of the worker continuing to be employed.

Furthermore, the employer must submit his proposed dismissal to the shop stewards, and either they, or the worker, can force the dismissal into labor courts for declaratory judgment. As long as the stewards join the worker's action, he may continue to work until a final judgment is rendered. The burden of proof on the employer is heavy in these cases and the length of adjudication in such cases make the idea of dismissing a worker unattractive.

The strict conditions attached to factory closings have been covered above. It should be mentioned that beside cash compensation, retraining, and other obligations, employers must notify the federal authorities at least 30 days before the planned closing. Based on its finding, the government can delay or speed up the closings as it chooses.

Such security and involvement seem to trigger a variety of positive responses from workers, which are reinforced by the formal and informal agendas for discussion of working conditions and future investments that are provided for under codetermination. Through such discussions, workers are made aware of company plans before

they are presented in the form of pink slip. On the other hand, managers, faced with a decision about capital investments, are more likely to make them in consultation with labor if there is a reasonable assurance of cooperation.

Codetermination

The German experiment with worker democracy, known as *mitbestimmung* or codetermination, has done much in its 30 years to promote a spirit of understanding between capital and labor. One thing it has not done is to eliminate all tension between the traditional opponents in a capitalist system.

There has been a growing distrust between business and labor since 1976 and, while events as disparate as a general profit squeeze and spurts of inflation after the oil shocks have contributed, two events related to codetermination triggered the greatest distrust: (1) An expansion of codetermination to increase worker representation on many supervisory boards; and (2) attempts by a former steel producer, Mannesman, to withdraw from its earlier role in the codetermination laws. A brief summary of the codetermination act is necessary to understand the framework of worker participation in Germany.

The original postwar codetermination law established two categories for codetermination: operational and organizational. The operational codetermination panels play a large role in determining the quality of life on the job, while the organizational groups deal with longer range concerns.

The operational codetermination panels are known as works councils. A rough American equivalent could be had by convening a factory's shop stewards. This works council, however, is much more powerful than any such gathering of its American brethren would be. All individual worker dismissals must be brought to the works council before notice is given, and it may intervene by filing suit in labor court against the dismissal.

The power of works council extends to cover all aspects of job conditions. The council consults with management regarding working space—safety, comfort, facilities—and work routines, the division of workers into teams, and so on. But, the council cannot block major investment decisions, interfere with large-scale capital transfers, and is basically restricted to making the best out of the general environment provided by the firm's supervisory board. As such, it acts to smooth the transmission of most decisions between managers and labor.

Although there have been several versions of codetermination, all involve placing worker representatives on the supervisory boards of corporations. Supervisory boards make investment and other long-run decisions for companies. However, for the great majority of companies, worker representatives plan little more than an advisory role, despite the votes they command; they do not have a majority and capital still represents a solid voting block on most boards.

The first version of codetermination included any public corporation with over 2,000 employees and established two classes of worker representation for the boards of such corporations. If the firm dealt in coal

or steel in any way, then the supervisory board would be made up of 11 members, 5 of whom would be stockholder representatives, and 5 of whom would be labor representatives. There would then be a chairman. On the other hand, if the firm was not involved in such enterprises, but employed at least 2,000 workers, its suprevisory board had to have one-third union representatives and two-thirds stockholder representatives. Under these conditions, it was only the stronger form of codetermination that offered to labor any hope of real power to block or initiate investment decisions.

It was the Social Democrats' proposed extension of the steel and coal company codetermination regulations to all companies with more than 2,000 employees that brought the tension between labor and capital to a head. Shortly after coming into power in the late 1960's, the SPD announced that such an extension would be one of its major legislative goals. The employers began to battle it at once. Finally, in 1976, the bill was passed in a heavily compromised form that satisfied neither employers nor labor. As approved by Parliament, the bill established three stages of worker participation on supervisory boards:

(1) For coal and steel companies, the old 50–50 split was maintained.

(2) For other companies with over 2,000 employees, there would be a 50–50 split, but with certain qualifications that effectively gutted the equal relationship. First, one of the labor delegates has to be a representative of the senior white-collar employees, thus, he can be expected to vote with management on most issues. Also, the chairman can cast two votes on any issue in which two ballots produce a tie. The chairman is elected either by two-thirds majority or, if that is not possible, by the stockholders. In this case, labor elects a vice chairman, who has one vote under all conditions.

(3) For stock-issuing companies with under 2,000 employees, one-third of the supervisory board must be labor representatives.

It must be recognized that, in the case of labor-management divisions on votes, the qualified 50 percent representation under this expanded codetermination act will provide management with a majority vote, just as did the old 33–67 percent split. Little was changed in the final allocation of voting majorities when it comes to party-line labor management divisions.

The bill, even in its weakened state, was too much for the employers, and they challenged the new law's constitutionality. Their main point was that the law violated the owner's right to decide on disposition of property. In the spring of 1979, the Federal Constitutional Court ruled that the law was constitutional and should be implemented. In the meantime, however, the 7-year-old policy of concerted action had broken apart as labor boycotted the meetings due to the employer's legal challenge to the codetermination statutes.

To further complicate matters, Mannesman, formerly a leading tube-making company, divested its steelmaking enterprises and then sought to be relieved from its obligations under the stronger steel and coal form of codetermination. Labor was enraged by the company's move and feelings grew more strained as Mannesman pressed its case to be exempted from the old law. As of this writing, the conflict

lingers, with the SPD having proposed a "grandfathering" clause for the codetermination act that would preclude companies from changing their supervisory board compositions if they divested their coal or steel producing sectors.

Conclusions: A Look at the Recent Past

The German worker has generally cooperated with capital, and he has been greatly rewarded for his cooperation. The Federal Republic has been an island of relative stability during the last decade, and has continued to increase its productivity, real wages, and leisure time. This requires the actions of both private and public sectors to be moderate and ever aware of the needs that other areas of the economy might be feeling. One of the truly remarkable results of this enterprise is that it did not spawn a centrally directed industrial policy, though there is a great deal of official direction coming from the Bundesbank. Still, it must be admitted that Germany has done as well as any industrial nation in living up to its purported belief in free markets.

To make this clearer, and to get a hint of possible problems in the 1980's for the Federal Republic, this essay will conclude with a brief look at two periods in the last decade which are of special significance. After the 1973 oil shock, Germany came back with amazing speed and actually increased its trade surplus in the first year after the embargo. Inflation, unemployment, and energy demands pressed on the economy, and throughout, the authorities maintained their concentration on all sectors of the economy, not just on price stability. In the second period, up to the time of this writing, Germany is attempting to swallow the second round of price hikes for oil. The Germans have not been as successful in this recovery, and the question is whether their relatively firm commitment to avoid intervention will succeed this time as it did in the mid-1970's.

The 1973 Oil Shock

While there is no good time for a 300-percent rise in oil prices, the final quarter of 1973 was a particularly bad time for such a rise in West Germany. The shock came as federal authorities and Bundesbank officials were in the latter stages of policies designed to choke off an overheated economy, and bring some control to the massive capital inflows that plagued the country from 1968 through 1973. The government had revalued the Deutche mark upward by a trade-weighted average of 9.4 percent in the last year, while the Bundesbank continued to raise interest rates and reserve requirements.

The extent of manipulation authorities used to control the economy are indicated by a brief list of policy changes during 1973. There were nine budget freezings or releases, three bond floats, 14 tax changes, 3 Discount Rate raises, and 6 reserve borrowing authorization movements. Most of these changes were small and most of them were coupled with announcements of their expiration dates. The desire was to send effective signals without unduly jarring the underlying fiscal and monetary structures.

By mid-1973, the combined efforts of monetary and fiscal braking had managed to stall the domestic economy. Foreign demand for Ger-

man products, however, continued unabated with the largest increase in trade surpluses of the postwar period being registered during the year. It was this surge of export demand that laid the groundwork for the Federal Republic's recovery after the shock.

By late December, the authorities were presented with a major dilemma. On the one hand, they were not sure that the inflationary pressure had been squeezed out of the economy. There were signs that wage-price spiral was still working through the system. Prices rose at an unacceptable rate in December, hitting the highest year-on-year inflation rate of the decade—8 percent. On top of this, wage negotiations had resulted in a larger-than-expected average increase for the year of 11 percent.

On the other hand, Germany had to face the oil shock and its expected effect on export demand. Domestic demand had slumped sharply in response to the government's midyear economic stabilization plan. Particularly hard hit were car sales, which dropped 46 percent in November. Unemployment in November, although only 1.5 percent of the work force, was nearly double that of July, and short-time workers were up 600 percent over 1972.

This was a perfect test of the German commitment to price stability. If the authorities were predominantly committed to price stability, they could be expected to maintain restrictive policies at the expense of further souring the economy.

In the event, the authorities followed a dual strategy, trying to knock the wind out of both inflation and recession at the same time.

On the 19th of December, the federal government relaxed nearly all of the fiscal measures it had put into effect during the February and May tightenings. Particularly important were reintroduction of depreciation tax credits, and the abolition of investment taxes. Meanwhile, the Bundesbank announced that it would continue to pursue its restrictive monetary policies in full force.

The authorities were able to turn around in December on economic policies created less than 6 months before, and to do this without losing credibility. By leaving the Central Bank to guard monetary expansion, the federal government was able to smooth out the recessionary impacts of the 1973 oil shocks.

The effect of this dual-fronted policy was to create a shallow 2-year trough with recovery picking up a great deal of steam in the first quarter of 1976. Only in 1975 was there negative growth in real GNP (−1.8 percent), and peak unemployment was 4.7 percent with just over 1 million workers unemployed.

The Bundesbank was clear that the oil cost push would not be translated directly into prices, and that a profits squeeze would have to be tolerated by business. There was a short-lived attempt to moderate wage demands in 1974, but it failed and settlements averaged 13.7 percent. This made DBB's success at convincing business not to pass on the full amount of its increased costs the more remarkable. While the need to maintain market shares in a slumping world economy bears some responsibility for business' price moderation, Bundesbank pressure was still an important factor in the final analysis. As a result, 1974 was an extremely rough year for profits. While gross wage and salary income rose 10 percent for the year, profit and entrepreneurial

income rose only one-tenth of 1 percent. The increase in income to the two sectors from 1972–75 is shown in Table IV–5.

TABLE IV–5.—WAGES AND PROFITS CHANGE IN PERCENT, YEAR-TO-YEAR

Wages and profits	1972	1973	1974	1975
Gross wage and salary income	9.9	13.0	10.0	4.1
Gross property and entreprenurial income	7.6	7.5	.1	5.4

Source: OECD.

One startling result of this price restraint was that the Federal Republic's trade surplus spurted ahead to record levels in 1974, at a time when most other countries were moving toward large deficits.

The recovery from 1974 picked up steam in a way that displays the ability of various sectors to work together with some degree of trust. Largely because of the trust between labor and capital in Germany, government and business were able to present a convincing case to workers that the 13 percent wage increases in 1974 could not be repeated. Since neither the Central Bank nor the world export market would allow businessmen to pass through increased labor costs, many medium-sized companies would have tottered toward bankruptcy if the 1975 round of wage negotiations had not resulted in more moderate wage hikes. When the case was presented to labor, there was a significant drop in wage demands, as the 1975 round of bargaining ended in agreements that just about kept pace with the 7-percent inflation rate.

Labor's cooperation was not entirely altruistic. The facts of the economy convinced workers that the businesses were not hiding behind a facade of phony financial trouble. Firms could not afford to invest in capital if the 1974 experience were repeated and as they folded, jobs would be lost. Furthermore, in the crucial export markets producers had swallowed a 9-percent increase in the value of the Deutsche Mark over the 1972–73 rate. It was clear that they could not pass through much in the way of labor cost increases if their market share was to remain healthy. Finally, the labor market itself was barely avoiding a collapse. While unemployment was around 5 percent short-time workers had jumped from an average of 44,000 during 1973 to 900,000 in February of 1975. Unless wage demands were lowered, many companies would be forced to follow Volkswagen's example when it agreed to a 13-percent pay raise and immediately put 33 percent of the work force on short time.

The result of cooperation and moderation on nearly all fronts by the various actors in Germany's economy was that, after a mild 2-year slump, there was a rise in real GNP of 5.3 percent for 1976, and a rise in real fixed capital formation of 4.7 percent, after 2 years of decreases. The recession was moderate by most standards and the recovery was complete, continuing to pick up steam through 1978 and 1979.

The stability of Germany's economy during this turbulent period is the response for which its institutions and ideology are geared. The 1979–80 period has posed new challenges to this system which have not been so easily dealt with. It is to this we now turn.

The problems now faced by the Federal Republic are a mirror image of those it faced in the early 1970's. After years of trying to fend off excessive capital flows, trade balances, and pressures to upvalue the Mark, authorities are now trying to keep money from leaving the country and there is pressure to let the Mark fall in value. The primary weaknesses of the economy are (1) a recently developed current account deficit, and (2) a growing recession.

While the current account deficit did not begin to appear before the closing months of 1979, it has picked up considerable steam since that time and there is agreement that the imbalance will remain through the first half of the decade. 1979 ended with Germany 4.9 billion Deutsche Marks in the red and, according to the latest DBB estimates, the 1980 deficit should reach 30 billion DM. There are at least six major causes for this downturn in foreign balances: first, giving in to 10 years of OECD pressure, the West Germans agreed to try the "locomotive" theory in 1978 and to step up its growth rate. According to an OECD analysis, this move cost Bonn 9 billion DM towards its current account deficit. Second, the large price increases for oil combined with a deterioration in the trade balance between Germany and OPEC countries to account for about 13 billion DM in additional deficits. Third, tourism by Germans accounted for an outflow of money equal to 2.4 percent of their GNP (about 22 billion DM), while Germany took in only eight-tenths of 1 percent of GNP from foreign tourists. This differential is half as large as the total Federal Republic oil bill. Fourth, a drastic shift in direct investment by German companies in foreign countries occurred, with direct foreign investment rising by two-thirds since 1977, while foreign investment in Germany dropped to a low of 2 billion DM. Fifth, a large capital outflow took place, due to the high interest rates in the United States and United Kingdom. Sixth, there was a large increase in the share of foreign-made consumer goods bought by Germans.

While the increase in consumer purchases of imported goods and the compounding threats to traditional German export markets have been the responsibility of many countries from Korea to Rumania, it is Japan that occupies a prominent place in the concern of federal authorities. Attention was focused on the Japanese threat through shipbuilding, steel, photography, and other traditionally German enterprises, but it has hit especially hard with Japanese penetration into the domestic automobile sales market. During the late 1970's, the Japanese attempted to establish a sales network in Germany but were forced to retreat by consumer sales resistance. In 1980, the story was quite different. The Japanese zoomed from virtually no share in sales to command 10 percent of the domestic automobile market.

The external market trends are compounded by domestic problems. In the first place, a recession is developing that is expected to send unemployment to 1 million. Although this is only 5 percent of the work force, the 1 million level has served a symbolic role in measuring the success of economic policies. The Bundesbank, while it would like

to back off of its historically high interest rates to help combat this recession, finds itself unable to do so for fear that lower rates would simply compound the capital outflow to the higher interest rates of the United States and Britain.

On the other hand, the federal authorities, who might be expected to take up the fight where the Bundesbank could not, as in 1973, find themselves unable to help recovery or further cushion the recession because of a mounting public-sector deficit. The deficit became one of the few issues of any importance during the 1980 national elections. The deficit, although limited by law to no more than the amount spent by federal authorities in investment programs, has been climbing for the last few years, reaching 3.5 percent of GDP in 1980. Although this is down from its peak of 5.5 percent in 1975, the accumulated debt has reached a point where its interest nearly equals the total 1980 deficit.

German authorities point to three trends which lead them to a cautious optimism that the rocky weather will be smoothed considerably in the intermediate term. First, although more industrial jobs will be lost to foreign competition, the economy still has a great deal of room to move in expanding its service sector. It is the only one of the five largest industrialized economies with less than 50 percent of its work force in services. Second, much of the current account deficit is due to oil import bills, and Germany is beginning to succeed in cutting back its energy consumption. While crude oil imports account for 16 percent of its total imports at present, consumption of crude oil declined by 8 percent during the first half of 1980. Third, despite recent tensions in the management-labor sectors of the economy, productivity is still on the rise, and wage increases are still moderate. The average increases in the 1980 rounds were 6.7 percent, and no group deviated by more than 1 percent from that average. These positive signs are the beacons to which Germany looks for its future economic health. Whether they will suffice, making a large revision of German attitudes toward an industrial role for the state unnecessary, remains an open question.

V. ECONOMIC STAGNATION AND SOCIAL STALEMATE IN SWEDEN

Like most Western industrial countries, Sweden faces the need to adapt its economy to an international environment that has recently become much more unfavorable. And as in most of these other countries, the issues of how the adaptation is to take place and how its burdens should be distributed have been the focus of much political controversy. This essay explores the specific reasons why these issues are difficult to resolve in Sweden.

Economic Crisis and Political Change

In the century ending in 1970, Sweden had been changed from one of the poorest to one of the richest countries in Europe. Export-led growth was crucial to this transformation. In the post-World War II period, the dependence of Sweden's economy on foreign transactions was greater than ever, averaging around a quarter of its national product. Continued adaptation to the requirements of equilibrium in those transactions has accordingly been recognized as necessary by the main actors in Sweden's political economy all along. However, the impact of the international economic crisis of the mid-1970's made it clear that the magnitude of the problem had been much greater than previously recognized.

Immediately after the first round of oil price increases in 1974, it seemed that the deflationary consequences of the sudden redistribution of income to OPEC were being much more effectively counteracted in Sweden than in most of the other OECD countries. Sweden was one of the few countries in which the government adopted an expansionary policy, stimulating domestic demand in order to offset the decline in external demand. Sweden's government, controlled by the Social Democratic Party at the time, thus endeavored to "bridge over" the recession underway in the OECD generally. In a similar effort to limit the effects of international fluctuations by offsetting domestic policies, it had pursued a highly restrictive policy to "tunnel under" the global inflationary boom of the early 1970's. Since Sweden's prices and labor costs were consequently rising more slowly than those of its trading partners, and since it had a large balance-of-payments surplus in 1973, it was believed to be in a good initial position from which to bridge over the recession into which the OECD area was heading in 1974.

However, the difference between domestic and foreign economic trends in 1973–74 precipitated a profits explosion in Sweden's export-oriented industry. This was especially marked in the forestry and iron mining sectors which were carried along by the sharp commodity price boom that culminated in the quadrupling of oil prices. Combined

with the expansionary domestic policy, this profits boom triggered a wage explosion that was embodied in a 2-year wage agreement for 1975–76. At the same time, the recession turned out to be much longer and deeper than anyone had anticipated, so a large gap opened up between unit costs in Sweden and in its trading partners. Consequently, the recovery of Swedish exports lagged behind even the belated and limited OECD area recovery to a substantially greater extent than could be explained just by the large proportion of investment goods in Swedish exports, and Swedish producers lost market shares at home as well as abroad.

This "cost crisis" laid bare and made more intractable a "structural crisis." The competitiveness of several sectors which had contributed a large part of Sweden's exports had been steadily eroded by changes in the international pattern of comparative advantage. This was particularly the case in forestry and iron mining and industries built on them, such as steel and shipbuilding. The extent of these sectors' vulnerability to foreign competitors, whose lower costs they could not approach even if Swedish costs generally had not been out of line, had been obscured by the early 1970's boom. When the boom collapsed, the cost gap hit these sectors very hard, especially steel and shipbuilding, both of which suffered the additional penalties of heavy concentration on the tanker market that was destroyed by the oil price rises. But while large portions of these sectors were evidently no longer viable, the collapse of profits and investment even in those sectors that would be competitive in the absence of the cost gap kept them from expanding sufficiently to take up the slack.

Taking Swedish industry as a whole, exports, production, profits and investment fell even further in 1977 than they had in the OECD area generally during the exceptionally deep recession of 1975. The only respect in which the Swedish economy was less hard hit was the rate of open unemployment. This was still kept remarkably low by dint of massive increases in expenditures on manpower policy, employment subsidies, and rescue operations on failing companies, ranging from loans and grants to outright nationalization. However, the combined effect of all these factors was large deficits in the central government budget and current balance of payments.

Thus, while the impact of the international crisis on Sweden was delayed, it was not averted. Indeed, it was magnified, confronting Swedish economic policy with problems more serious than any since the Great Depression.

By the time this became apparent, however, responsibility for economic policy had changed hands for the first time in over 40 years. Sweden had been governed by its Social Democratic Party, alone or as the dominant partner in a coalition, from 1932 to 1976. In the 1976 election, the Social Democrats were finally defeated by the three so-called "bourgeois" parties.

The end of Social Democratic rule was obviously not brought about by the economic crisis, since the policy of bridging over the recession had delayed the crisis until after the election. On the other hand, the fact that they had spared Sweden the high unemployment afflicting most other OECD countries did not help the Social Democrats either.

The Social Democrats were unable to turn their apparently successful economic policy into an election issue. Instead, they were narrowly defeated on the basis of various other issues. The most important of these was the party's stand in favor of nuclear energy, on which it was successfully attacked by the Center Party—the old Farmers Party, which became the largest of the three bourgeois parties by transforming itself into a party of protest against nuclear energy, environmental destruction, and the costs of industrialization and urbanization generally.

The other two bourgeois parties—the liberal, or Peoples Party, and the conservative, or Moderate Unity Party—were opposed to the Center Party on the nuclear issue. They nevertheless joined it in forming a coalition government headed by the Center Party's leader, Thorbjörn Fäelldin. Accordingly, it was up to this new government to cope with the economic crisis. Neither it nor the two other bourgeois governments that have been in office since 1976 have been successful in doing so.

The inability of recent Swedish governments to cope reflects a stalemate over fundamental issues of economic policy. The distribution of power among key factors with opposing positions on these issues makes their resolution difficult, if not impossible, and the longer the problems continue, the more intractable they evidently become. In this context of stalemate, credit policy has been used to minimize the damage done by the symptoms of the problems rather than on the problems themselves. This is particularly true of the large deficits in the central government budget and current balance of payments.

The Anatomy of Stalemate

Any government trying to cope with Sweden's economic crisis in 1977, whatever its partisan composition, would have to reduce the cost gap as much as possible and then keep it from opening up again. This was a necessary, if not sufficient condition for overcoming the structural problem. Only to the extent that Sweden's relative cost position was restored would those sectors that would then be internationally competitive expand sufficiently to replace those sectors that could no longer be competitive even then.

To begin with, the government would have to find a way to offset the effects of the 1975–76 wage explosion and create conditions under which it could be prevented from happening again. Labor costs would have to be kept stable even when demand increased sufficiently to stimulate enough investment to achieve the required expansion. The difficulty involved is a familiar one, by no means confined to the present period, either in Sweden or elsewhere. As demand approaches levels at which investment rises to the required rate, the profits and demand for labor that accompany it increase the upward pressure on wages.

This pressure is intensified insofar as inflation and marginal tax rates increase the nominal level of wage increases required for real wages to increase. Social Democratic governments had not been able to cope with the difficulty very effectively, as indicated not only by the 1975–76 wage explosion but by the operation of the wage determination system at least as far back as the mid-1960's as well.

For the new bourgeois government in 1976, the difficulty was compounded by the interaction of two sets of circumstances. One is the slow rate of aggregate economic growth, which has made additional demands for real resources for wages or investment hard to satisfy. The other is the deep disagreement between the bourgeois parties and much of Sweden's powerful trade union movement, not over the need for the increase in investment, but over the way in which it is to be brought about.

Estimates differ on how much industrial investment would have to grow in order to overcome the structural dimension of Sweden's economic crisis, and on how great a shift from consumption to investment would be required. However, there is no doubt that some shift would be necessary. If aggregate growth is slow, it is possible that there could be no real growth in consumption for some years, or even some decline. A decline would be especially likely among wage earners to the extent that commitments are kept to maintain the real income of the growing number of retirees.

Whether the required shift from consumption to investment could occur under these circumstances depends on the extent to which the unions endeavor to protect their members' real wages in the face of slow growth, inflation, and taxes by winning high nominal increases. If they are determined to make the effort, they are in a very strong position to do so. Their membership embraces three quarters of the labor force, making the degree of unionization higher in Sweden than in any other country. To be sure, the unions' effort to keep real wages from falling might well be frustrated by resulting inflation or by offsetting government policies. However, the net result is still likely to be only stagnation instead of the required shift from consumption to investment. This is particularly likely if the government relies on reducing demand to undermine union bargaining power, thereby threatening the very increase in investment that is needed by depressing the capacity utilization on which it is contingent.

There is, therefore, probably no way the shift from consumption to investment can occur unless the unions are willing and able to make it possible by not pressing to maintain current real wage levels. This, in turn, depends on whether the government pursues policies which create the conditions under which unions are willing and able to make the necessary sacrifices, including policies which shape the distribution of the disposable income that is left after the shift to investment. It is, of course, not at all certain that there are any policies which can create those conditions.

Even if unions are willing to enter into some kind of "social contract," implicit if not explicit, by which, for instance, they agree to moderate demands in return for favorable policies regarding the distributive terms on which the consumption-investment shift is to be brought about, they may not have the organizational capacity to make the social contract stick throughout the labor market.

In any case, it is certain that the policies so far pursued by governments since 1976 have not been capable of enlisting union cooperation or even acquiescence in the required shift—that is, once capacity utilization has recovered sufficiently to stimulate investment, which is when the difficuly appears. As we shall see, the test did not come until

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the 1980 wage round—following the modest recovery during the life of the 1978–79 agreement—when Sweden's reputation for industrial peace was badly tarnished by the country's largest work stoppage since 1909. The outcome, a new labor cost increase (though a more limited one than in 1975), demonstrated the government's inability to create conditions under which union wage policy could accomodate the shift.

The massive work stoppage—a lockout as well as strike—was by no means an inevitable consequence of conflict between the government and unions, in the governmet's own capacity as employer, or in its stance with respect to the conflict between private employers and the unions. Divisions within the government coalition and distraction by a nuclear energy referendum helped put the actors on a collision course. But differences between the government and unions on a range of economic policy issues made it very difficult, if not impossible, to handle the cost dimension of the crisis so as to deal effectively with its structural dimension as well.

The fundamental difference concerns the issue that most divides all the major actors in the political economy: the methods by which the needed investment is to be financed. Most of the positions approximate either of two alternative approaches. The essential difference between them lies in the extent to which they rely primarily on private property or collective institutions for organizing the savings-investment process.

One of the two approaches relies on channeling an increasing proportion of savings into investment through collective institutions. These include institutions already in existence, such as the national pension fund, and others to be established, such as the so-called wage-earners funds, all of which are described below. This approach would reduce the importance of savings channeled into investment through private property institutions typical of capitalism, such as retained profits and external equity capital arising from private savings. This aproach can be characterized as the "socialization of investment," and it is the direction in which the Social Democrats were moving while in office.

The major impetus for the development and extension of this approach has been the confederation of blue collar unions, the LO, which has also been the main source of the Social Democratic Party's exceptional political strength. The party and LO unions are closely linked in various formal and informal ways, and are identified with each other as a single Social Democratic labor movement, although they are organizationally distinct and, at times, take divergent positions. Thus, the party has typically responded to LO initiatives with some apprehension and delay. However, since 1976 when the party lost control of the government, it and LO have been jointly elaborating the further steps toward socialization of investment which will be taken should the party get back into office.

In direct contrast, the government's approach relies on channeling an increasing proportion of savings into industrial investment through the private property institutions cited earlier. This approach implies a diminishing role for some of the collective institutions already in existence, and precludes the establishment of new ones along

the lines being proposed by the Social Democratic labor movement. This approach may thus be characterized as the "reprivatization" of investment.

The major impetus for reversing the direction of economic policy that had been evolving under the Social Democrats comes from the private business sector, and the party most closely identified with it, the Moderate Unity Party. The other two bourgeois parties—the "middle parties"—have been more tentative in their opposition to the Social Domcratic approach, partly perhaps because they compete with the Social Democrats for support in some segments of the electorate. In addition to such tactical considerations, there are also ideological differences over the alternative aproaches within these parties. This may well have constrained the pursuit of the private savings strategy, just as Social Democratic Party misgivings have slowed and modified the development of LO's variants of the collective savings strategy.

Even if the three parties comprising the present government were thoroughly united behind the reprivatization approach, however, it is doubtful that the required increase in investment could be brought about by any strategy relying on it, precisely because it is likely to be frustrated by the operation of the wage determination system, given the power and policies of the unions. Thus, the socialization approach may well be a necessary condition for union cooperation in bringing about the shift from consumption to investment on anything like the required scale. This is certainly the position taken by LO, which has explicitly linked at least a gradual transformation of the savings-investments institutional framework to its willingness and ability to keep wage growth consistent with the required rate of investment. A more detailed discussion of LO's review will be presented below.

The white collar unions, which belong to two separate confederations and are not linked to the Social Democratic or any other party, have been more divided on the issue. Nevertheless, TCO, which is by far the larger of the two, as well as some of its affiliates, have advanced arguments essentially similar to those made by LO concerning the conditions on which they can acquiesce in the required investment shift.

A solution to the problem of investment along the lines being pursued by the bourgeois governments in office since 1976 may therefore be ruled out by the way the wage determination system works. On the other hand, a solution along the lines of the Social Democratic alternative is obviously ruled out as long as the bourgeois parties remain in office. Admittedly, even if the Social Democrats regain control of the government and proceed to implement that approach, it would not necessarily provide a workable solution to the problem of investment, for the effect it would have on the investment behavior of firms that would continue to be predominantly privately owned for some time is highly uncertain. Still, the Social Democratic approach may be the only one that could make it possible for wage growth to be consistent with the required shift from consumption to investment. Short of that, there seems to be no way of adapting Sweden's economy to the much more difficult international environment in which it must now operate.

The issue of how to finance the required increase in investment would accordingly seem to be the pivotal one on which the adaptation

or stagnation of Sweden's economy hinges. For that reason, this essay is focused primarily on that issue, even though it is by no means the only issue involved in contemporary Swedish controversy over economic policy. Other issues will be alluded to only as necessary to shed light on this central one, but no attempt will be made to analyze them in detail.

A somewhat fuller discussion of credit market institutions and issues will be provided in view of their relevance to the larger study of which this essay is part. The issue of how to bring about increased investment can, indeed, be conceived as an issue of credit policy in its broadest sense. However, as long as any resolution of this fundamental issue is blocked by the apparent stalemate in the political economy, Swedish credit policy continues to be addressed primarily to controlling the symptoms of the underlying problems that consequently remain intractable. We shall turn to the techniques by which the tasks of credit policy in this narrow sense are performed after suggesting the reasons for the stalemate that imposes these tasks on credit policy.

Power and Policy During the Social Democratic Era

The intensity of the controversy over the alternative approaches to the problem of investment might seem excessive in view of the rather marginal consequences that either of them would be likely to have, at least for the foreseeable future. On the other hand, the controversy is clearly more than an exercise in symbolic mobilization, for the institutional underpinnings of Swedish capitalism are now at stake as they have never really been before. Thus, resistance to the Social Democratic approach by private business and, in varying degrees, by the bourgeois parties, hardly needs explanation. The Social Democratic commitment to the socialization of investment may be somewhat more puzzling, however, for it seems to run counter to the most common stereotypes of Swedish Social Democracy.

Those who know little more about Sweden than that it was governed by a "socialist" party for a long time tend to assume that this has already turned Sweden into a socialist country. It must therefore come as something of a surprise to them that the overwhelming proportion of production for the market is still conducted by private enterprise, and that this institutional basis is only now being threatened by Social Democratic policy. Those, on the other hand, who are aware of the prolonged and apparently mutually satisfactory coexistence of a politically powerful labor movement and a flourishing, internationally integrated capitalist economy tend to assume that the "Swedish model" embodied an indefinitely sustainable "middle way," if not between socialism and capitalism, at least between the conflicting interests of labor and capital. It must therefore also come as a surprise to them that Social Democratic policy has been evolving along lines that put the institutional basis of private enterprise seriously into question, and that this has given rise to a fundamental conflict on which the recovery of Sweden's economy may largely turn.

We shall try to shed some light on why Social Democratic policy has developed in the direction it has, not simply to correct erroneous stereotypes but primarily to suggest why the pressures to move in that

direction may doom the alternative reprivatization approach on which the presentgovernment appears to be relying.

The source of the thrust toward the socialization of investment in the evolution of Social Democratic policy seems to lie in successive efforts by LO to work out a wage bargaining role capable of reconciling two sets of requirements: the requirements of an effective economic policy, including the adaptation of the economy to its changing international environment; and the requirements for maintaining organizational cohesion, both within the individual unions and the confederation as a whole. Before describing how these requirements have been conceived, why they have proved difficult to reconcile, and the successive initiatives toward the socialization of investment taken in the effort to overcome the difficulty, it is necessary to sketch the relationships between LO and the other major factors in the political economy more fully.

Labor, Capital, and the State

About three-quarters of Sweden's labor force belongs to unions, more than in any other country. Two-thirds of union membership, accounting for half of the labor force, is in unions belonging to the Swedish Confederation of Labor, or LO. The members of LO unions are predominantly blue collar workers, in both the private and public sectors, although the distinction between blue and white collar occupations has been growing hazier. White collar workers belong to unions in two other confederations. The Central Organization of Salaried Employees, or TCO, is by far the larger, covering a little over a fifth of the labor force. The other, the Swedish Confederation of Professional Associations and National Federation of Government Employees, or SACO–SR, includes a little less than a twentieth of the labor force.

There is an important political difference between the blue and white collar confederations. From their origins in the late 19th century, the LO unions have been closely linked to the Social Democratic Party, together forming the Social Democratic labor movement, whereas the white collar unions are not part of that movement, and are not linked to any party. The LO unions provide the party with its most important organizational and financial resources, through which they mobilize support for the party among the LO union members who form the core of its electoral constituency.

The LO unions already included almost all blue collar workers by the 1930's. This base of support has been the single most important factor in the Social Democratic Party's powerful position in the political arena, enabling it to control the government virtually without interruption for nearly four and a half decades. This record is unmatched by any other labor movement party or any other kind of party subject to the repeated test of free elections.

White collar unionization has been much more recent, largely since employer resistance to it was weakened by legislation enacted by the Social Democratic government in 1936. It has grown rapidly in the postwar period until it now includes roughly three-quarters of its potential membership. Despite the role of the Social Democratic government and LO in making this possible, as well as the substantial

numbers of Social Democrats in the white collar unions, especially TCO, both the unions and the confederations are compelled to remain formally nonpartisan to avoid internal strains.

Their members' political allegiances are spread across the whole spectrum from the small communist party on the left to the conservative party on the right. Nonetheless, white collar, as well as blue collar, union membership contributes to the Social Democrats' strength, with union members twice as likely to vote Social Democratic as nonunion members in comparable occupational categories. In recent elections, more TCO voters, about two-fifths, have supported the Social Democratic Party than any other party. This compares with a majority for the Social Democrats among LO voters ranging from three-fifths to three-quarters.

Most of the remaining LO voters, mainly in rural areas, support the Center Party, with the remainder supporting the Communists. Since the Social Democratic Party cannot win elections on the basis of LO member support alone, even if it has a 100 percent of it, the substantial margin of additional support provided by white collar union members is essential for the party. On the one hand, then, the exceptionally high level of unionization in Sweden has been a crucial factor in the political as well as the wage determination systems, decisively conditioning the economic policy options and constraints within which any Swedish government—whether bourgeois or Social Democratic—has to operate. The white collar unions, in particular, occupy a pivotal position, for the "middle parties" as well as the socialist parties compete for support within them. On the other hand, the very high level of unionization does not give the Social Democrats a corresponding degree of political strength. Social Democratic control of the government has always depended on its ability to mobilize some support in addition to that of its core constituency, either from other parties in parliament or in the electorate. Earlier, it was primarily in parliament, where the necessary margin of support was provided by the old Farmers Party. That was what enabled the Social Democrats to begin their long reign in 1932, when they fell short of a majority even though they did better than they had ever done before. In fact, they only won parlimentary majorities in two elections, 1940 and 1968.

It was Farmers Party support, informal or as junior partner in a coalition government, that enabled the Social Democrats to govern for much of the time between 1932 and 1957. In the latter years, a second coalition between the two parties ended when the Farmers Party embarked on its ultimately successful strategy for organizational survival, changing its name to Center Party and adopting a new programmatic profile in order to mobilize support beyond its dwindling core constituency.

Since the Social Democrats could not turn to either of the two other bourgeois parties as alternative sources of parliamentary support, they too were compelled to seek support in the electorate beyond their core constituency.

They were able to find it in a portion of the rapidly growing TCO membership. In addition, except for the period between 1968 and 1970, however, Social Democratic government depended on the support of the small communist party, although the Social Democrats refused to

enter into any explicit deals with that party in order to get it. There was an exact tie between this socialist bloc and the three nonsocialist parties during the life of the last Social Democratic government between 1973 and 1976.

Thus, although the Social Democrats were in control of the government for close to half a century, they were only precariously in power for much of this time. This imposed persistent limits on the pattern of policy through which they could try to achieve their economic objectives, including limits on the extent to which they could violate the institutional autonomy and operational imperatives of the capitalist firms that controlled the vast bulk of production for the market.

These limits were acknowledged by Ernest Wigforss (the Social Democrats' principal theorist and architect of the Keynesian expansionary policy which they were the first to introduce) when he set forth the implications of the fact that Social Democratic control of the government had been established on an evidently sustainable basis in the 1930's. As he put it, the result was a shift of "political power" in favor of the labor movement while "economic power" remained in the hands of capital.

Since neither could realistically hope to dislodge the other from its position in the political economy for the foreseeable future, in his view, the rational thing to do was to cooperate. This meant that those with economic power had to recognize the need to make "concessions, accommodations, (and) compromises," while those with poltical power had to "admit the necessity of maintaining favorable conditions for private enterprises in all those areas where they are not prepared without further ado to replace the private enterprises with some form of public operations."

Ultimately, the economic power retained by private enterprise was the power to make the decisions, particularly investment decisions, determining the production that actually took place in much of the economy. The extent to which full employment, and other goals such as expanding the services and transfers comprising the welfare state, could be achieved was accordingly dependent on those decisions. A Social Democratic government could influence decisions to increase production, and perhaps even influence the directions and distribution of such increases, but only in ways that maintained "favorable conditions for private enterprise."

These included not only the combination of demand and costs that met the profitability criteria on which such decisions are based, but also the preservation of the institutional arrangements on which the autonomy of those decisions is based. Wigforss' statement amounted to an acknowledgment that Social Democratic policy had to be consistent with the requirements for the operation of a capitalist economy, given the limits of the redistribution of power that had occurred.

This acknowledgment was reflected in a kind of settlement or, as a Swedish sociologist put it, "historical compromise" between the Social Democratic labor movement and Swedish capital. The main features of the settlement were a division of roles among the Social Democratic state and unions, on the one hand, and private enterprise, on the other. The state's role, operating principally through the budget, is confined

primarily to stabilizing demand, determining its broad division between private and public uses, and modifying its distribution between those with and without employment, while the bulk of production for the market continues to be conducted by capitalist firms.

The unions' role is confined to regulating industrial relations jointly with the management of those firms, maintaining industrial peace, and determining wages through collective bargaining. Management continues to decide not only what is to be produced but how. In short, the environment in which production decisions are made is conditioned by state and union action, but the decisions themselves are left to the management of the predominantly capitalist firms.

It is essentially this division of roles that is referred to as the Swedish model, over which a substantial degree of consensus was established in the 1930's and maintained throughout most of the period of Social Democratic rule. What made the consensus sustainable was not merely the persistent configuration of power that crystallized in the 1930's, but also persistent economic growth. Recognition that "neither the labor movement nor private capital could realistically hope to resolve the inherent conflict of interests between them through the surrender of the other party" was not enough for the stalemate.

It was also necessary to recognize a common interest in managing the conflict in such a way as to facilitate recovery and growth. Substantial scope for such an outcome was made available by the underutilized capacity and unemployed labor in the 1930's and the unprecedented expansion of international trade in the postwar period.

That growth makes it possible to turn such conflict into a "positive sum game" is, of course, a commonplace. Hence, it can hardly be surprising that stalemate should supplant consensus, now that the extraordinary postwar era of exported growth has been replaced by a period in which the burdens and benefits of adaptation have to be distributed in the context of slower and more problematic growth. That the conflict over how burdens and benefits should be distributed should result in a stalemate rather than in the imposition of a settlement on terms unacceptable to the labor movement reflects the power that labor retains, despite the Social Democrats' loss of office in 1976.

Just as the redistribution of power in favor of the labor movement in the 1930's was limited, so too was the redistribution of power away from labor in 1976. Not only does the Social Democratic Party remain a cohesive and credible alternative government, which could have returned to office if it had won just one more seat in 1979, but the unions, whether Social Democratic or not, remain in a position to frustrate any strategy of adaptation they view as unacceptable. To understand this more fully, it is necessary to turn from the state arena to the market arena.

Labor and Capital in the Market Arena

The high degree of labor organization in Sweden is paralleled by a high degree of employer organization. The latter's organization is divided along different lines, however, with the principal division between the private and public sectors, and subdivisions within each. As already indicated, production for the market still takes place predominantly in the private sector. By 1976, the public enterprise sector

(as opposed to the tax-financed service portion of the public sector) comprised only about 6 percent of GNP and employment—less than in most other West European countries.

The service portion of the public sector did grow substantially under the Social Democrats, so that the public sector as a whole accounted for just over 30 percent of the labor force by the mid-1970's. Cooperative (mostly retail) and union-owned (mostly construction) enterprise accounted for about another 7 percent, so that roughly 63 percent of the total labor force worked in the capitalist portion of the private sector.

The private sector is dominated by a relatively small number of large corporations that are highly integrated into the international economy. Among the export industries, engineering, which employed 11 percent of the labor force in 1974, plays an increasingly strategic role. The engineering industry, which is almost entirely private, exported about half of its output in the mid-1970's and accounted for over a third of total exports of goods and services. Of the 18 largest Swedish multinationals, accounting for 90 percent of foreign employment by Swedish multinationals, 13 are engineering firms. Fifty-nine percent of the employees of those 13 multinationals were in their foreign subsidiaries in 1977.

The association between concentration and internationalization is further illustrated by the fact that most of the multinationals are controlled by a relatively small number of conglomerate-like financial groups. In 1977, over a fifth of all private-sector employment was accounted for by the largest 17 of these groups. Of these, by far the largest and best known is the Wallenberg group, which alone accounted for 10 percent of private-sector employment. The Wallenberg group and the second largest group are linked to the two largest commercial banks, respectively.

To round out the picture of concentration in the Swedish economy, the 431 largest nonfinancial corporations—with 500 employees or more—accounted for nearly half of all employment in nonfinancial corporations in 1976. Firms in that size category accounted for an even higher proportion, 60 percent, in the engineering industry. Admittedly, even the largest Swedish firms, such as LM Ericsson, the telecommunications company, with 1974 employment of 50,000 in Sweden and 81,000 worldwide, are not large by international standards. Nevertheless, within Sweden, these groups, and the large firms within them, occupy a dominant position both in the markets and in business organizations.

Within the labor market, private enterprise is organized in several employer associations, of which the Swedish Employers Confederation, or SAF, is by far the largest and most important. SAF covers slightly over half of private-sector employees. A little over three-quarters of all firms with 500 or more employees belong to SAF through their industry association, accounting for just over half of the employees covered by SAF. Again, the engineering industry has a dominant position, accounting for over a quarter of SAF-member employees. Thus, SAF includes a substantial majority of the large firms comprising the core of Swedish industry, as well as a significant minority of the smaller firms. Besides SAF, there are a number of smaller

private-sector employee associations, including separate ones for the cooperatives, banking, insurance, forestry, and the press.

All of the unions and employer organizations in addition to LO and SAF have been incorporated into a system of industrial relations that was largely shaped by the latter two organizations. As it operated from the 1930's to the 1970's, the system had two main components. One is a set of rules for the private government of industrial relations, which was designed to insure "industrial peace." This was established by a "Basic Agreement" between LO and SAF in 1938. The other is a system for the negotiation of central wage agreements. This was designed to keep the growth of wages in line with the requirements of economic stability, or, in other words, to carry out something like a voluntary "incomes policy." This system has been in continuous operation since 1956.

The central agreements between LO and SAF typically, though not invariably, set the pattern for wage settlements in the rest of the labor market, both through negotiations each conducts with its counterparts, and in negotiations between other organizations that take their lead from what the main organizations do. While the LO–SAF agreements set the pattern, they do not determine the actual growth of earnings, even within their own jurisdictions. This is because the extent to which they can control what happens at industry and local levels is subject to significant limitations—limitations which affect LO, perhaps to a greater extent than SAF.

Aside from the state negotiating agency, SAF is the most centralized of the major labor market organizations. From its inception in 1902, it has had a great deal of authority over its component organizations and their member firms. According to its rules, all members must submit collective bargaining agreements to it for approval before they can go into effect. Offensive action against unions is subject to control as well. The SAF Executive Council can order a general or partial lockout, and no member can engage in a lockout without the Council's approval.

Firms that are struck or engage in approved lockouts are entitled to financial assistance from an "insurance fund" based on dues and the equavalent of 2 percent of member firms' wage bills, which they are obliged to provide in case of need. This fund is exclusively at SAF's disposal. Firms that violate SAF's rules are deprived of assistance from the fund and are subject to penalties ranging from fines to the ultimate sanction of expulsion. The actual centralization of power may fall somewhat short of the formal centralization of authority in SAF. But SAF clearly has a high degree of control over wage bargaining on the employers' side, which stimulates and reinforces centralization in the trade union movement.

Formally, LO is not as centralized as SAF. Nothing in LO's rules entitles it to conduct the central negotiations with SAF that have characterized each wage bargaining round since 1956. In each instance, LO has been authorized to conduct the negotiations by a separate decision of its Representative Council, made up of officials from all of the unions. Representatives of LO do have the formal right to attend negotiations by affiliated unions, and to raise issues at such negotiations that have previously arisen at other negotiations.

On the other hand, individual unions are not required to submit collective agreements to LO for prior approval. If they conclude an agreement contrary to LO policy or recommendations, LO cannot levy fines or impose other sanctions, although the sanction of expulsion is formally available against serious violation of basic organizational rules or policies. As a practical matter, however, affiliated unions cannot resort to a strike without approval of LO's executive body, for unions that do so can be denied the financial support LO is otherwise obliged to give.

The centralization of authority within LO's affiliate unions reinforces the power of the confederation. According to the standard set of rules prescribed by LO, the right to decide on strike action and approve wage agreements is vested in the national leadership of each union. The leadership is elected, but the process is often indirect, and decisions to strike or accept a contract are not subject to binding referendums. Most unions have even abandoned the practice of advisory referendums in favor of decisions taken at meetings of elected councils.

Two other aspects of LO's institutional environment also contribute to centralization within it and its affiliates. First, SAF's somewhat greater ability to make its affiliates comply with its policy makes it hard for an individual union to get an employer counterpart to deviate from a central agreement, even if both are inclined to do so. Second, Swedish labor law dating back to 1928 makes strikes over issues covered in collective agreements illegal as long as the agreements remain in force. If not settled by negotiation, disputes over such issues have to be brought to a special labor court, which consists of union and employer nominations and a neutral jurist. This tends to make strikes a weapon that only confederation and national union leaders have at their disposal, and only in bargaining over new agreements.

In contracst with SAF, the actual centralization of power is probably greater than the formal centralization of authority in LO. However, LO is perhaps most accurately viewed as an institutional arrangement through which the member unions can arrive at and carry out a common policy. It has a great deal of moral and considerable formal authority to enforce such a policy in the face of resistance by one or two unions, but it cannot impose on its affiliates a policy that most do not support. This may well be as true of SAF.

The reality of power within both peak associations is probably that policy formation is dominated by the few largest component organizations, tempered by the need to draw the others into a broad consensus. On that basis, SAF and LO have acquired the power to negotiate agreements with each other and generally to secure compliance with them among their affiliates. Each increment of centralization in one organization provides an incentive or leverage for a parallel development in the other.

Among the white collar unions, the picture is quite different. Unlike LO, TCO is not a negotiating body—it was a party to the 1956 central agreement but to none since—and it has no comparable authority over its affiliates' action in the market arena. It serves primarily to articulate and press the white collar unions' positions concerning various

public policy issues. For some time, individual TCO unions negotiated wage agreements with employer organizations. Successive moves toward joint negotiations among TCO unions in the private sector led to the establishment of a body for that purpose in 1973, a private-sector salaried employees federation, or PTK. Similar joint negotiating bodies, TCO–S and TCO–K, have been set up in the central and the local government sectors. LO had long sought to bring about the coordination of wage negotiations across confederal lines and the establishment of PTK improved the prospects for success. After negotiating two separate agreements with SAF, PTK joined with LO to negotiate the 1977 and 1978–79 agreements. However, PTK negotiated the last two agreements, for 1980 and 1981–82, separately again.

The results of the private-sector central negotiations are referred to as "frame agreements." They lay down the general contours of wage changes in the forthcoming contract period, varying from one to three years. Formally, these are only recommendations which the parties to the agreements are committed to urge upon their respective affiliates. The latter, individual unions and industry associations, negotiate the agreements that have the status of binding contracts under Swedish labor law.

In practice, these contracts follow the general provisions of the frame agreements, translating them into detailed terms for their respective negotiating jurisdictions. Local negotiations then complete the process of applying the terms to individual establishments and, in the larger ones, to specific groups of workers within them. Such local negotiations do not simply follow up on national agreements, however. They tend to go on continuously, particularly in plants where earnings depend wholly or in part on piecework or other forms of performance-based payment systems.

The scope for interpretation and continuing local negotiations in this multilevel bargaining system means that the increases provided for in the central frame agreements cannot completely determine the actual growth of earnings. In fact, those increases have only accounted for roughly half of the actual growth of earnings, averaged over the period since 1956 when the unbroken series of central agreements began. The rest has taken the form of "wage drift," defined as the difference between the actual increase in earnings and the "calculated effects of the central wage agreements on average earnings."

Drift tends to vary with the tightness of labor markets and to some extent with profits, and hence with the degree to which employers compete for labor. This, in turn, is obviously bound to affect the bargaining power of local union officials and even individual workers. Thus, the wage determination system as a whole is clearly more decentralized than it appears when attention is focused simply on the central negotiations.

It is within the framework of this wage determination system that LO has endeavored to work out a wage bargaining role for itself which is capable of reconciling the requirements of an effective economic policy and the requirements of organizational cohesion. The central negotiations would appear to provide a mechanism for gearing wage growth to the requirements of economic policy: However, the degree of decentralization that remains in the system means that the require-

ments of organizational cohesion set significant limits on the extent to which the requirements of economic policy can be met, quite apart from disagreements among the government, employers, and unions as to what the requirements of economic policy are.

LO has a strong stake in finding a way to reconcile those two requirements, especially when the Social Democratic Party is in office. That stake is ultimately a political one. To the extent that LO's wage bargaining role can meet each of the requirements, it can provide an important form of support for the party. Meeting the requirements of economic policy reinforces the party's economic performance, on which it has based its main claim to electoral support. Meeting the requirements of organizational cohesion enhances the effectiveness with which the LO unions can mobilize electoral support for the party among their own members.

The LO and its affiliates have a strong stake in providing both forms of support, for they view the party's control of the government as essential to the achievement of goals beyond the reach of their bargaining power in the market arena, especially full employment, which in turn reinforces their market bargaining power. The party, in turn, obviously has a strong stake in pursuing an economic policy which assigns to LO a wage bargaining role capable of reconciling the two requirements.

However, it has proven difficult for both the party and the unions to find the combination of economic and wage policies that can realize their common interests. In order to understand the nature of the difficulty, we turn next to how LO has perceived the two sets of requirements and the dilemma of reconciling them.

Wage Policy and the Economy

For much of the period since the system of centralized negotiations was established, most participants in the system have shared a common view of how to decide what rate of growth of wages was consistent with the requirements of the economy. Given the dependence of Sweden's standard of living on participation in the international economy, the requirements of the economy and the instrumental aim of economic policy are defined in terms of external equilibrium. Wage increases that the sector producing exportable or import substituting goods and services (the "tradables" sector) can pay without losing competitiveness are, therefore, taken as the norm for all wage increases.

For a long time, this wage norm was set according to rough rules of thumb accepted by both LO and the employers confederation. In 1969, the norm and its rationale were given systematic formulation in a document prepared by the economists of the two main union confederations and the employers confederation. Known as the "EFO model," after the economists' names, the formulation was not adopted as official policy by the confederations. Until recently, however, it served as a generally accepted frame of reference for estimates of the level of wage increases consistent with long-run external equilibrium.

The EFO model divides the economy into two sectors, the "competitive," or "C," sector that produces tradables and the "sheltered," or "S," sector that produces nontradables. Given the economy's de-

pendence on the continued competitiveness of the C sector, the requirements for that are taken as the basis for setting wages. The essential requirement is to maintain a sufficient level of investment to keep the value of the sector product at a level consistent with external equilibrium. If the initial position is one of external equilibrium, it is assumed that there will be sufficient investment in the sector to maintain its competitiveness if the relative shares of wages and profits in the sector unchanged. Constant shares will, in turn, be maintained if wages do not exceed the sum of price increases and productivity increases in the sector, which accordingly defines the "scope" for wage increases in that sector. Several additional conditions are assumed.

First, prices in the sector are set in the international market, so the sector is a price-taker. Second, exchange rates are essentially fixed, as they had been for most of the postwar period up to the formulation of the EFO model, so that international price movements are imported into the economy by the C sector. Third, productivity growth follows a trend set by exogenous factors such as scientific and technological development, so that it is not significantly affected by wage changes.

The scope for wage settlements in the C sector determines the rate of growth of wages throughout the economy—the C sector has to be the wage leader. Wage changes in the S sector are the same as in the C sector because standard rates are applied throughout the economy by the central negotiations and reinforced by market forces. Assuming lower productivity growth and standard markup pricing in the S sector, prices in it will rise faster than in the C sectors, making the domestic inflation rate somewhat higher than the rise in international market prices. This is regarded as consistent with external equilibrium as long as C sector wages remain within the scope defined by prices and productivity in that sector, thereby preserving its competitiveness. The C sector scope is not conceived as a norm that has to be met in each wage round. Rather, it specifies the "main course" around which the size of increases may fluctuate from one round to the next, as long as the long-run trend follows it.

A number of questions can be raised concerning the various assumptions and propositions incorporated into the EFO model, particularly under conditions prevailing in the international economy since the beginning of the 1970's, and we shall refer to some of them later on. For the time being, however, it serves as an indication of how a wage policy that met the requirements of economic policy has been understood by LO. Now we need to describe how the requirements of organizational cohesion have been understood.

Wage Policy and Organizational Cohesion

Whatever potential the wage determination system may have for meeting the requirements of economic policy depends on the agreements negotiated by the central organizations of unions and employers. In order for those organizations to conduct such negotiations, they must, of course, acquire the power to do so from their component units. This condition is met differently in the different organizations. LO, as noted earlier, has never been given permanent authority to conduct

the central negotiations. Its affiliates have to authorize it to enter negotiations anew at the start of each round.

Admittedly, it is now hard to conceive of circumstances in which they would not do so. Quite apart from anything else, such action would be very risky, since the highly centralized organization of private-sector employers gives the employers the capacity to coordinate their bargaining regardless of whether the unions do. However, there have been occasions when one or more unions have decided to go it alone. Thus, agreement among LO's component unions on the level and distribution of wage increases it should press for—that is, the concrete formulation of an agreed wage policy—remains an essential condition for LO's coordination of their wage bargaining through central negotiations with its employer counterparts.

The general conception on which such agreement has rested is referred to as "solidaristic wage policy." Its key feature is equal pay for equal work, regardless of employers' ability to pay. Defined in this way, solidaristic wage policy articulates a traditional norm of fairness in the labor movement: it cannot be fair for different workers to get different pay for the same work simply because they happen to work for firms that have different profitability or live in places where the balance of supply and demand for labor is different. However, if wages are to be determined on the basis of equal pay for equal work through economy-wide collective bargaining, rather than decentralized bargaining or individual wage-setting, there would presumably have to be some way of deciding which jobs are equivalent, such as a comprehensive job evaluation scheme on which there was general agreement. This condition, to which union discussion refers from time to time, has never been met.

In the absence of comprehensive job evaluation, LO's wage policy has concentrated on improving the relative position of lower paid workers through increases that are proportionately greater the lower the wage. This bias in favor of lower paid workers can roughly iron out differences in pay for work that is evidently similar, and has probably contributed to reducing differences in pay resulting from sex discrimination as well as differences in the profitability of firms and tightness of labor markets in different locations. At the same time, it also has a tendency to reduce differentials generally, presumably including differentials between different kinds of work. Thus, solidaristic wage policy has been given an imprecise but egalitarian meaning.

Understood in this way, solidaristic wage policy apparently commands very wide support, at least within the LO unions. Accordingly, it provides an effective symbolic basis for legitimizing LO's coordination of wage bargaining. We can see what it means more concretely by looking at the terms of the agreements. To be sure, the terms cannot be assumed to reflect the policy, for LO has not necessarily succeeded in embodying it in the agreements. The employers can obviously resist those aspects of the policy they oppose, with varying degrees of success under different circumstances. Besides, particular constructions of the terms may fail to yield the results they were designed to achieve. In the light of such experience, the technical construction of LO's demands and resulting terms has undergone a definite evolution. By

the 1970's, the central agreements began to display a pattern which LO saw as that toward which it had been striving during the 1960's.

Without going into the details of these agreements, we can conclude from them that solidaristic wage policy amounts to a set of relationships among wage gains by workers at different points in the pay scale, with different payment systems, and to some extent different unions, for which sufficient support can be maintained within the individual unions to enable them to agree to coordinated bargaining. It is, in short, a formula for managing distributive conflict within, and among, the unions.

For this agreement to be sustainable, there has to be enough slack in the system to permit some wage drift—i.e., it cannot be too centralized. Otherwise, coordinated bargaining would require that workers, who were in the best position to make gains, give up too much. A system that enforced the wage policy's manifest aim of reducing differentials too effectively—by keeping all workers from getting any more than the arguments specified—would be prone to a much higher incidence of wildcat strikes than the existing one. Unions subject to the greatest strain from this policy would then have the strongest incentive to opt out of further coordinated bargaining.

However, there can be too much wage drift as well as too little. This is partly because the credibility of the wage policy is increasingly undermined with increasing rates of drift. In addition, the higher the rates of drift experienced by all workers, the more evident it must be that employers are able to pay more than LO succeeded in getting through collective bargaining. The greater the gap between actual earnings increases and those provided for in the central agreements, the lower the credibility of LO's claim to represent the workers' economic interests in general. Under these circumstances, the system would be most prone to wildcat strikes by workers least able to get more than specified in the agreements, while all unions would be vulnerable to the charge of not performing their basic function. If the unions' support for coordinated bargaining is to be retained, then, LO must press for a combination of general increases and low-wage supplements that captures enough of what employers can pay to prevent wage drift from reaching levels that would result in wildcat strikes.

LO is accordingly faced with a subtle optimization problem. It has to aim at a set of provisions for wage increases that combine specified increases and a scope for wage drift in the way most likely to retain its affiliated unions' support for its negotiation of central agreements. On the face of it, there seems to be no reason to suppose that a wage package that solves this intra-organizational problem will necessarily coincide with a wage package that meets the requirements for maintaining the Swedish economy's external equilibrium. On the contrary, there is some reason for supposing that the two are unlikely to coincide.

A Union Strategy for Noninflationary Full Employment

The difficulty of reconciling the two requirements was already recognized in the early postwar years, long before the formulation of the EFO model, when LO was first confronted by the problem of inflation. Its response marked the initial stage in the evolution of Social Democratic policy toward the socialization of investment.

Contrary to the expectation in Sweden, as in most comparable countries, that high unemployment would return as the main economic problem after the end of the Second World War, full employment turned out to be relatively easy to maintain. Instead, recurrent inflationary pressures associated with full employment proved to be the most pressing economic problem. Like most other governments, Sweden's Social Democratic government tried to cope with inflation by resorting to various forms of incomes policy. Controls left over from wartime were used and others reintroduced.

In addition, the government got an agreement among all the organizations of producer groups, including LO, to freeze incomes at existing levels during 1949 and again in 1950. Any further extensions were made impossible by the inflationary pressures associated with the Korean War. The resulting termination of the freeze was followed by a wage explosion that just kept pace with the increased cost of living.

Viewing this as an unavoidable "one-time" adjustment to higher price levels, the government sought to reestablish price stability by calling for a renewal of wage restraint, though not a new freeze, in 1952. This time, however, LO refused. Instead it called upon the government to pursue an alternative strategy that had been worked out by its own economists. Referred to as the "Rehn model," after one of the economists responsible for its formulation, this strategy was adopted as LO's official policy during its 1951 congress.

The LO statement set forth two grounds for rejecting any disinflation strategies which relied primarily on wage restraint: they were bound to fail and, in the process, to undermine the union movement. No matter how much restraint the unions exercised in negotiating wage contracts, wages could not be kept from rising because the unions could not prevent wage drift—i.e., increases in excess of contractual rates. As long as there is sufficient demand and firms can afford to exceed those rates, they will do so as much as they consider necessary to attract and hold labor. Some drift is unavoidable and even desirable as a safety valve. But drift is bound to be uneven, both because of differences in firms' profitability and in payment systems.

The more drift there is the more tension inevitably develops between workers in a position to benefit from it and those who are not. Moreover, support for unions among workers in both positions is undermined the more that wage drift makes it evident that unions have failed to get as much for their members as they could. In addition to the tension this causes between unions and their members, the LO statement emphasizes, it also generates "discord between the different unions" which "will inevitably prove disastrous . . . to trade union solidarity."

A policy relying on wage restraint was, accordingly, rejected because of the threat inherent in it to rank and file support within the individual unions and to the unions' cohesion within the movement as a whole. Therefore, economic policy had to be designed in such a way as to assign to the unions a wage policy role they could carry out without undermining their own cohesion. The Rehn model offered a way to design a policy for noninflationary full employment that would meet that specification.

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The point of departure for the Rehn model is an analysis emphasizing the differences in profitability in different parts of the economy and fragmentation of the labor market into partially separate submarkets. From this, the conclusion is drawn that the full employment goal had to be disaggregated, relying on "general" fiscal policy to maintain employment throughout most of the economy and "selective" manpower policy in the remainder. While the government carried out these two kinds of policy, union wage bargaining would be coordinated by LO on the basis of a "solidaristic wage policy," understood essentially as equal pay for equal work, regardless of a firm's profitability or ability to pay. This combination of government and union policies was expected to encourage a process of structural change that would make noninflationary full employment possible. We can, accordingly, refer to this policy mix as a structural change strategy. It was supposed to work as follows.

In combination with a fiscal policy that was more restrictive than that pursued in the preceding years, the unions' standard rate wage policy would produce a profits squeeze with differential effects on different firms. The less profitable a firm was the harder it would be hit, subjecting it to more pressure to become efficient or shut down while the more profitable a firm was the less hard it would be hit, leaving it in a better position to expand. The unemployment with which workers in the least profitable firms would be threatened would be met by selective measures targeted specifically at the workers involved, and not by renewed general stimulus of demand, since such stimulus would relieve pressure on inefficient firms, while increasing inflationary pressures where labor markets were already tight. These measures would be designed principally to let workers transfer to new jobs in the expanding firms, through the provision of retraining, information, and financial support during the transition process. A vast expansion of such manpower policy measures, sufficient to shift the costs of structural change from the workers affected to the society as a whole, was the condition on which the acceleration of structural change could be accepted by the unions. To the extent that this condition was met, the proportion of efficient, low-cost firms capable of paying standard rates without putting increased pressure on prices would increase, accomplishing noninflationary full employment more effectively than any attempt to repress inflation by direct restraint of wages and prices.

There was nevertheless a place for a limited degree of wage restraint within the framework of LO's proposed approach. Provided that the government fulfills its primary responsibility for maintaining noninflationary full employment, the unions could accept the responsibility for pursuing a wage policy that reinforces government policy. This responsibility would be met by coordinating wage bargaining to avoid the kind of wage-wage spiral that could make inter-union wage rivalry an autonomous source of inflation. Thus, coordinated wage bargaining would perform an anti-inflationary function in addition to the contribution to structural change made by implementing the standard rate wage policy. This policy implies a further element of restraint insofar as unions do not press for all that the most profitable

firms can pay. Such restraint would encourage the expansion of efficient firms needed to offset the decline of inefficient firms. However, it is not at all clear that LO's policy would ensure that standard rates would be set at levels permitting expansion of sufficient efficient firms. This ambiguity raises a crucial issue.

The issue arises because the extent to which standard rates can fall short of what firms can pay is limited by the tendency for this shortfall to be made up by wage drift, with all the dangers to organizational cohesion such drift poses. If LO settles for standard rates low enough to permit a substantial level of drift, the intra- and inter-union tensions that come with it are likely to jeopardize LO's ability to retain its affiliates' support for the coordinated wage bargaining that is a central element in the whole strategy. For this reason, LO's policy statement argues that "the profits made by firms" must not "allow for much wage drift." This suggests that standard rates might have to be set so high that profits will be squeezed enough to prevent significant wage drift even in the most profitable firms. Thus, the implementation of this solidaristic wage policy might require profits to be squeezed so hard that they will not allow for sufficient growth of profitable firms to offset the contraction of unprofitable firms.

If that happens, the private sector would decline, since it produces subject to some requirement of profitability. To the extent that full employment is dependent on the private sector, such a decline could mean that that goal could not be maintained over the long run, unless growth in the public sector took up the slack. Accordingly, the question then would be what rate of shift from private to public employment is consistent with noninflationary full employment over the long run.

This question arises because Sweden's economy is, as emphasized in the EFO model, not only a market economy but also a small, open one. Thus, production for the market must include tradables whose value is sufficient to maintain external equilibrium at full employment over the long run. If the net effect of expansion and contraction of firms in the tradables-producing sector is that the value of output falls below the level required by external equilibrium, then full employment cannot be maintained over the long run. Of course, some decline in tradables output could be offset by, say, a decline in the full employment level of import absorption. The question then would be what rate of change in the shares in total output of the tradables and nontradables sectors is consistent with external equilibrium over the long run. The maintenance of the rate of change is what LO's structural change strategy is all about.

While the strategy is designed to facilitate the adaptation of industry required to maintain its international competitiveness, however, it is also designed to do so within the limits of LO's organizational cohesion. Ultimately, then, the issue is whether the wage policy on which the strategy relies to meet organizational cohesion requirements is consistent with a wage policy which meets the external equilibrium requirements.

LO's 1951 statement does not ask whether its solidaristic wage policy could be implemented only if profits are squeezed so hard that expand-

ing firms could not grow sufficiently to offset the contraction of declining firms. Rehn himself was aware that there could be a problem here. He made it clear on various occasions that the squeeze on profits integral to the whole strategy could be expected to result in a decline in business savings. While acknowledging that this could lead to insufficient investment, he held that this danger could be averted as long as the decline in business savings was offset by an increase in savings elsewhere in the economy. In his view, it was in the public sector that the offsetting savings should occur. Such an increase in public-sector savings was, in principle, built into the Rehn model by the restrictive fiscal policy through which profits would be squeezed against wages. The budget surpluses entailed by that policy would provide the offsetting increase in public savings. The resulting shift of savings from the private to the public sector would have the additional virtue of reducing the inequality of wealth. As a practical matter, Rehn suggested that the growth of savings in the public sector could be assured with greater reliability than it could in the normal budget process if the further reform of the pension system then being contemplated were designed to enable it to accumulate a larger surplus. This, as we shall see, is precisely what happened. What remains essentially unexplored in the Rehn model, as originally formulated, is how those savings can be translated into investment.

The reliance placed on public-sector savings to solve the problem of investment seems to presuppose that the problem lies at the savings end of the savings-investment process, so that it is essentially a problem of the aggregate supply of capital. What is important from this macroeconomic, and quintessentially Keynesian, perspective is that a sufficient supply of savings is assured. If that is done, and the demand for output is sufficient, investment would take care of itself: the composition of investment would be guided by the differential profitability the solidaristic wage policy would preserve even at a lower level of average profitability. Underpinning this point of view are two crucial assumptions. One is that public-sector savings can be accumulated to the extent required to maintain or, if necessary, increase the aggregate supply of savings. The other is that the accumulated public-sector savings can be channeled effectively to private firms in forms and methods consistent with the level and composition of the investment needed to maintain a tradables sector able to meet the requirements of external equilibrium. Both of these assumptions turned out to be highly problematic, posing issues central to Swedish economic policy today.

While these issues are left unresolved in the Rehn model, it clearly takes an initial step toward the socialization of investment. That step is taken in an effort to maintain noninflationary full employment consistently with the organizational cohesion on which the labor movement's power depends and on which, in turn, full employment itself is believed to be contingent. The Rehn model takes the evolution of policy only part of the way toward the socialization of investment. However, it does so unmistakably insofar as an increase in public-sector savings is essential for a solution to the problem of investment posed by the interaction of the other elements in the prescribed pattern of policy.

The Institutionalization of the Structural Change Strategy

When LO proposed its structural change strategy in 1951, the unresolved issues inherent in it were only hypothetical. They could only emerge concretely insofar as the strategy was implemented, and this was ruled out by political conditions in the early 1950's. Not only were key elements of the strategy opposed by the Farmers Party on which the Social Democratic government had again come to depend, but the Social Democratic leadership was itself unconvinced by the LO argument. By the end of the decade, both of these political obstacles had been overcome. Institutional arrangements essential to the implementation of the Rehn model were in place, and economic policy seemed to be conforming increasingly to its prescriptions.

The introduction of the system of centralized wage negotiations which we already discussed provided a means for carrying out the principal task assigned by the Rehn model to the LO—the coordination of wage bargaining on the basis of a solidaristic wage policy.

The mechanism for the selective manpower policy prescribed by the Rehn model already existed in the form of a Labor Market Board, or AMS, set up in 1948. What it took to transform it into an instrument for the policy was essentially the Social Democratic leadership's conversion to it. The initiative for this came from the Prime Minister and leader of the Social Democratic Party, Tage Erlander, in response to the renewed conflict over wage restraint between the party and LO in 1955. Viewing the conflict between them over such a basic economic issue as extremely dangerous from a political standpoint, he pushed to resolve it in favor of LO's position. This outcome was soon reinforced by the accession of a new Finance Minister, Gunnar Sträng, a former union organizer who was more open to LO's argument. AMS was then given a new director, thoroughly committed to LO's view of its function, and a vast expansion of the funds at its disposal got under way, quadrupling in real terms in the four years from 1957 to 1960.

Beginning while the Social Democratic-Farmer coalition was still in power, most of the expansion took place after its breakup. However, the expansion was quite uncontroversial, at least in its early stages, because it occurred during a recession and looked like traditional anti-unemployment policy. By the time it became apparent that AMS was being used for a new kind of employment policy that was to continue on a large scale even during boom periods, the Social Democrats were in a position to continue the policy, for they had established sustainable control of the government on a new basis. That was the outcome of a political battle over pension reform which proved to be a great deal more controversial.

As enacted in 1959, the pension reform superimposed a universal, compulsory, inflation-indexed, earnings-related supplementary pension, financed by employer contributions—i.e., a payroll tax—on a system of universal, flat-rate pensions, financed out of general taxation, that had been established in 1947. In combination with the flat-rate pension, the supplementary pension was designed to provide retirement income equivalent to two-thirds of an individual's highest 15-year average earnings.

A national pension, or AP, fund was set up to administer the new system, accumulating a large surplus during a 20-year transition period

in which the system gradually went into effect (as increasing numbers of people with increasing pension entitlements reached retirement age), and investing that surplus in the bond market. In this way, the AP fund provided the kind of extra-budgetary mechanism for accumulating public-sector savings that Rehn believed necessary to offset the anticipated decline in business savings. This accumulation of a large surplus was the feature of the pension reform most intensely opposed by business and financial interests, which attacked it as an attempt to take over control of the capital market.

Hence, LO opted for the "political alternative." Somewhat reluctant to provide that alternative at first, the Social Democratic Party gradually recognized the mobilization possibilities inherent in the pension issue, not only among its core constituency of LO members, but also among those white collar workers whose electoral support had to be won in order to retain control of the government after losing the parliamentary support of the Farmers Party. The pension issue actually provided the occasion, though not the cause, of the Farmers Party's withdrawal from the coalition. As demonstrated by the 1960 election, the pension issue did enable Social Democrats to shift their control of the government from a parliamentary coalition to an electoral constituency large enough to be able to govern alone, substantially increasing the degree of support within its own blue collar constituency and marginally increasing white collar support.

Together with the apparatus of conventional demand management, the institutional changes made in the later 1950's substantially increased the capacity of the Social Democratic government and LO to perform the tasks assigned to them by LO's structural change strategy. This did not necessarily mean that they were either able or willing to do so or, if they were, that the strategy would prove effective. From the late 1950's through the early 1960's, however, both the government and LO unions pursued policies that seemed to increasingly approximate the Rehn model, and from the performance of the economy it could easily be concluded that it was working.

For LO, which was the driving force behind the pension reform, the mechanism for public-sector savings was important but not more so than the scheme's explicit function of providing all workers with the generous pension benefits that some white collar workers, particularly in the public sector, had won. LO's decision to seek the generalization of such benefits by legislation, rather than collective bargaining, is a significant illustration of the same strategic outlook which underlies its solidaristic wage policy.

It did not believe it could win such advantageous pensions for all workers at the same time through negotiations with the employers confederation. Short of that, relying on collective bargaining would make pension provision depend on differential market positions, so that workers with the strongest bargaining power and financially strongest employers would get the best benefits. This was potentially divisive, fostering the identification of workers' interests with their particular union or employer, thereby undermining LO's organizational cohesion and the effectiveness of its claim to represent the blue collar working class as a whole.

The decisive advantage of legislation enacted by the party linked to LO was precisely its contrary potential for fostering class-wide

definitions of worker interests and identifying them with the Social Democratic labor movement's organizations in both the state and market arenas.

From the mid-1960's on, however, there was considerably greater instability and the emergence of trends indicating that the strategy was not working as well as it apparently had in the past. Whether this was because of flaws in the implementation of the strategy, its design, or both, the succession of economic disturbances culminating in the economic crisis of the mid-1970's suggested that the Social Democratic government had still not found a way to create the conditions under which LO wage policy could reconcile the requirements of external equilibrium and organizational cohesion. To understand the difficulties LO encountered in its efforts to do so and the ways in which it responded to those difficulties, we turn now to an analysis of how the wage determination system operated from the mid-1960's to the mid-1970's.

The Pattern of Wage Fluctuations: 1962 to 1976

The difficulty of reconciling the two requirements of external equilibrium and LO's organizational cohesion is most strikingly illustrated by the 1975–76 wage explosion. As we saw at the outset, a two-year agreement covering those years provided for wage increases that made hourly labor costs in Sweden rise substantially faster than they did in Sweden's trading partners. When payroll taxes are included, hourly labor costs in Swedish industry increased by 39 percent over the two-year period, the largest increase over a comparable period since the Korean War.

According to one analysis, this rise in hourly labor costs directly accounted for about half of a 27 percent increase over the two years in the unit costs of Swedish exports relative to those of its competitors on the world market. Relatively lower productivity growth accounted for another third of the cost gap, and an appreciation of the Swedish crown relative to currencies outside the snake (in which the crown was tied to the rising German mark) accounted for about a fifth. Part of this sharp rise in costs was translated into a drastic fall in profits, however measured.

Thus, capital's share of value added in the competitive sector, as defined by the EFO model, fell from its long-time high of 31 percent in 1974, after averaging about 25 percent over the preceding 23 years, to a low of less than 7 percent in 1977.[1] Profitability in industry displayed the sharpest drop at least since the 1930's. The drop in profits would have been even greater if the rest of the rise in costs had not been passed on in prices. But that led to an estimated rise in the relative price of Swedish exports by nearly 14 percent over the two years.

The result was a loss of market shares by Swedish exports over the same period estimated at 16 percent. Combined with a loss of shares in domestic markets, this produced a balance-of-payments deficit equivalent to 2.5 percent of GNP, and the sharpest declines in indus-

[1] A comprehensive revision of the data cited here was completed in 1980. Only some portions of the revision were available at the time of writing and are cited where possible. While modifying it somewhat, the revision does not alter the main features of the situation.

trial production and investment, declining by 3.4 and 17.1 percent, respectively, recorded in the postwar period.

These indicators make it obvious that the 1975–76 agreement fell drastically short of the requirements of economic stability. However, it directly followed a one-year agreement for 1974 that just as certainly, if not quite as dramatically, failed to meet the requirements of organizational cohesion. In making the 1974 agreement, LO clearly settled for much lower increases than those for which there was scope. While the agreement provided for a 5.1 percent increase in average hourly earnings of adult industrial workers in LO, wage drift added another 8.1 percent.

Thus, drift exceeded the contractual increase by 3 percentage points, more than during the life of any preceding agreement, although it was less than in the second year of the 1969–70 agreement. The high level of drift reflected the exceptionally high profits Swedish industry enjoyed as a result of the rapid acceleration of international prices in 1973 and 1974. The 31 percent share of capital in C sector value-added in 1974 was the highest since 1952, and profits reached long-time highs by all other measures.

At the same time, the high level of drift was unevenly distributed, reflecting the wide divergence of profits, with the resource based sectors benefiting especially from the commodity price boom. The clearest demonstration of the consequences this had for organizational cohesion was a wave of wildcat strikes, greater in some sectors than the more widely reported one in the Winter of 1969–70, when drift exceeded contractual increases by even more.

The moderation of the 1974 agreement, concluded more quickly than usual in January of that year, certainly can be attributed in part to a general concern, shared by LO, to avoid exacerbating the impact of the oil crisis. On the other hand, the contractual increases it provided for were probably not markedly lower than might have been expected under more normal circumstances. Over the three years covered by the previous agreement, 1971 to 1973, contractual increases had exceeded drift, profits had been lower than throughout the preceding postwar period, and unemployment higher than it had been since the late 1950's.

There was, accordingly, no question of having underestimated the scope for increases in the 1971–73 agreement. If anything, the scope might have been exceeded, redistributing income from capital to labor more than was consistent with the required growth of the EFO model C sector. In addition, a considerable equalization of wages since 1970, at least within LO, suggested that solidaristic wage policy had been achieving its intended effects. Finally, earnings exceeded consumer price increases enough to yield pre-tax growth in real wages of between 2 and 3 percent annually.

Thus, neither what rank-and-file union members were experiencing nor what union leaders knew about the relevant variables at the time were likely to result in demands much higher than those actually won at the beginning of 1974. It soon became obvious to both unions and employers that the settlement was too low, however, and higher increases were provided for in the subsequent industry-level negotiations. Even so, by the end of the year, it was clear that the organiza-

tional cohesion of LO and its affiliates had been subjected to severe strain by their conduct of wage bargaining.

The conclusion was inescapable: the level and distribution of wage increases in the next agreement would have to repair the damage. As it turned out, contractual increases did exceed drift in both years of the 1975–76 agreement, even though the level of drift was even higher in 1975 than in 1974. Over the 2 years of the agreement, contractual increases exceeded drift by 3.3 percentage points, more than in any preceding agreement period.

From the 1974 agreement to the 1975–76 one, then, LO's wage policy evidently shifted its emphasis from the requirements of economic stability to the requirements of organizational cohesion. While the combination of circumstances surrounding the shift in the mid-1970's were exceptional, as were its consequences, this kind of shift seems to be typical of LO's wage policy at least as far back as the early 1960's. The pattern displayed in the mid-1970's is clearly observable in the whole series of agreements beginning with the one for 1962–63 (see Figure V–1).

There is a consistent pattern of alternation between periods in which contractual increases are high relative to drift and those in which they are low relative to drift, which we can refer to as high and low agreement periods, respectively. There is also an alternation between periods in which the profit share rises and falls relative to the preceding period, with changes in contractual wages relative to drift and changes in the profit share varying inversely.

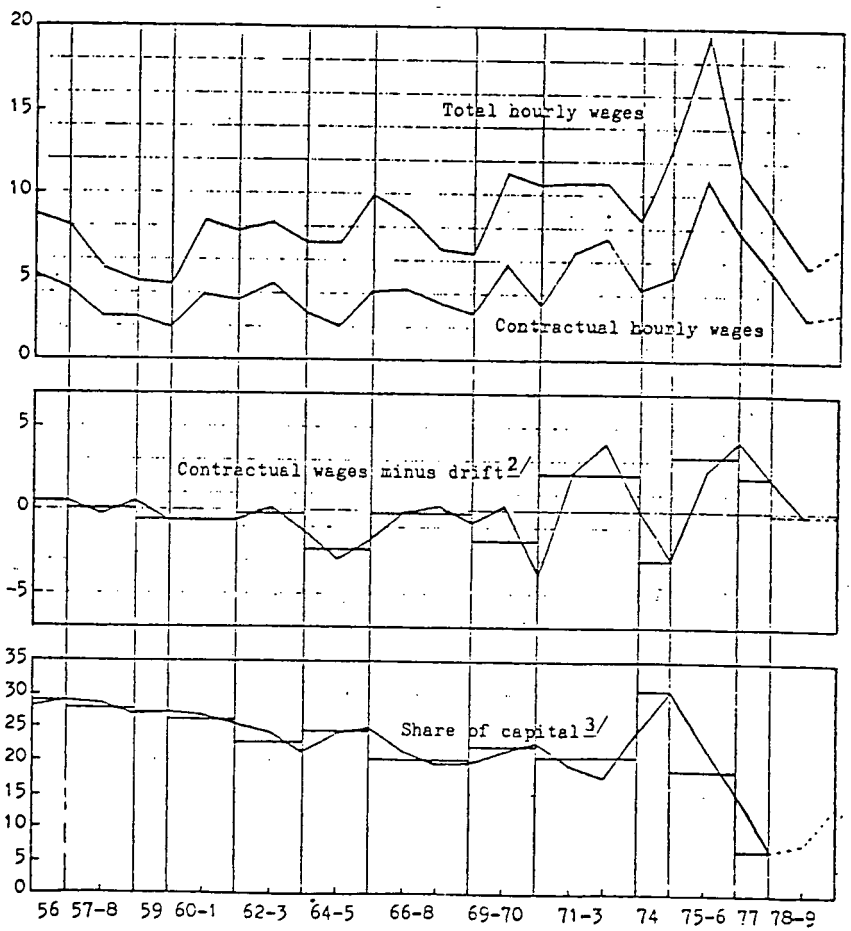
This alternation between low and high agreements seems to reflect the difficulty of reconciling the wage policy requirements of economic stability and organizational cohesion. Thus, the alternation seems to be generated by LO's efforts to resolve the dilemma by switching the order of priority in which it puts the two sets of requirements from one agreement to the next. An awareness of this dilemma emerges unmistakably from LO's wage policy report to its 1976 congress.

While envisioning a "redistribution and equalization between wages and capital income" over the long run, the report reiterates the necessity of pursuing that goal within the limits imposed by the requirements of external equilibrium. To assure that these limits are not transcended, the redistribution "must be the result of an overall negotiated settlement and not of an economic power struggle within particular sectors or individual markets."

Otherwise, gains by groups in a position to get them, coupled with compensatory efforts by others, will inevitably generate price increases that render the gains illusory and "could injure our competitiveness abroad." Thus, overall settlements, embracing all groups and not merely those within LO, are the way that the "wages share can best be defended and increased."

On the other hand, the report emphasizes that solidaristic wage policy is a "prerequisite for sustaining the necessary support for overall wage policy settlements," so that the need to take into account the "economic consequences" of wage increases "must not be allowed to take precedence over solidaristic wage policy." The risk of undermining that wage policy, on which support of overall settlements is based, increases to the extent that negotiated increases fall short of those for which there is "real scope" in the economy. The more that

FIGURE V-1.—Percentage change in hourly wages of adult industrial workers in LO, and share of capital in C sector value added, 1956–79 [1]



[1] Periods covered by individual central agreements indicated by vertical columns.
[2] Percentage point differences between contractual increases and wage drift. Positive percentages indicate contractual changes greater than drift, and negative percentages contractual changes less than drift. The average difference between contractural changes and drift during the period covered by each central agreement is indicated by horizontal lines.
[3] The average share of capital in C sector value added during the period covered by each central agreement is indicated by horizontal lines.
Sources: Wage data 1955–78 from LO Research Department, supplied by Ingvar Ohlsson; 1979 wage data estimated on basis of forecast in The Swedish Economy, 1979:3, p. 88, adjusted to include fourth quarter increase, as indicated in Table 3, note d. Capital share, 1955–77 from Statistiska centralbyran; 1978 and 1979 estimated on basis of data on manufacturing in The Swedish Economy, 1979:3, p. 131.

scope is left untapped by negotiated wage increases, the more scope there is for wage drift. The more wage drift there is, varying with differences in "the demand for labor and wage-paying ability, the more the settlement's intended effects on the distribution of income among workers will be frustrated. This "creates tensions within as well as

between different organizations' member groups," likely to be all the greater the more uneven the distribution of drift.

This is evidently what happened not only during the 1974 agreement period but during the 1964–65 and 1969–70 agreement periods as well. In each instance, LO shifted its emphasis from "economic consequences" to solidaristic wage policy. Each low agreement was, therefore, followed by a high agreement, in which profits were squeezed sufficiently to keep wage drift from exceeding contractual increases

Of course, what happened in each agreement period was the joint effect of the agreement's terms and everything else going on in the economy, including government policy. The latter clearly contributed to the extent to which one or the other of the two sets of requirements was threatened during the life of each of the successive agreements over the period considered. Thus, in the case of each agreement that turned out low, threatening organizational cohesion, government policy had failed to keep profits sufficiently squeezed to avert excessive drift. Typically, fiscal policy became restrictive too late in the course of an upswing. This permitted labor markets to become so tight and profits so high that drift reached levels threatening cohesion. To cope with the problems created or at least aggravated by fiscal policy lags, particularly when they took the form of accelerating inflation and balance-of-payments deficits, the government resorted to a sharp tightening of monetary policy.

The symmetry between low and high agreement periods is not exact and there are variations in the successive cases, some of them important. Thus, the failure to prevent the 1973–74 profits boom is attributable not so much to making fiscal policy restrictive too late, although this was a factor, as to an exchange rate policy that magnified the impact of sharply rising international prices. To blunt that impact, economists of various political persuasions urged the government to revalue the crown. This would have reduced the profits of exporting firms, particularly in the raw materials based sectors in which drift was especially high and disruptive. In retrospect, a 1979 LO report characterized the failure to revalue in the first half of 1973 as "the biggest single mistake . . . in Swedish economic policy in the last 10 years." In view of the breakdown of the postwar international monetary system, adaptation of Sweden's economy to its changing external environment clearly called for a modification of the fixed exchange rate policy adhered to in the past, and assumed in the EFO model. However, such modifications as did occur, apparently without attention to their stabilization effects, were perverse: a slight devaluation in connection with the international realignments in early 1973, followed shortly thereafter by entry into the snake, in which the Swedish crown was pulled up by the German mark after Swedish costs had already been pushed up by the wage explosion.

Exchange rate policy was first used deliberately by the new bourgeois government to affect Sweden's relative cost position in a series of three devaluations in 1976 and 1977. This, as we shall see, was a central ingredient in its strategy for coping with the crisis. However, as the 1978–79 upswing proceeded, the minority liberal government in office at the time was faced with the same problem posed by the operation

of the wage determination system that Social Democratic governments had faced in the successive upswings since the mid-1960's, and which was reflected in the pattern of alternation between low and high agreements that we have just described. Before analyzing the response to the problem in 1978–79 and the consequences it had for the present situation, it is necessary to consider some further aspects of the ways in which the Social Democratic governments and LO responded to the problem, and the solution toward which they have been moving.

Wages, Profits, Savings, and Investments

The significance of the pattern discerned in the operation of the wage determination system lies in its effects on industrial investment over the long run, and hence on the structural change needed to maintain external equilibrium. Our hypothesis is that, in combination with the policies pursued by both Social Democratic and bourgeois governments, the factors that make high agreements follow low agreements have a tendency to make wage growth accelerate in an upswing and prevent profits from remaining at a level at which they will keep investment growth going long enough to satisfy the requirements of external equilibrium.

Although this hypothesis is consistent with views frequently expressed in Swedish discussion, it must be stressed that there are too many gaps in the evidence, both theoretical and empirical, to substantiate it completely. While we shall point to the main grounds that seem to support it, and note where the main doubts lie, we shall concentrate on the way in which the problem of investment itself was perceived and responded to.

By itself, the alternation between low and high agreements need not matter. As recognized in the EFO model, for example, such fluctuations are entirely to be expected. What matters is the trend around which they occur. Thus, the successive agreements could offset each other, so that the long-run trend around which the relative shares of labor and capital fluctuate is constant, in conformity with the EFO model's "main course." Given the analysis in that model, and the assumption that C sector output is sufficient to begin with, the investment needed to maintain external equilibrium would be assured.

This is not what has happened, however. On the contrary, as can be seen in Figure V–1, there has clearly been a downward trend in capital's share of value added in the C sector since the first of the central agreements. When the fluctuations between low and high agreements became more pronounced in the early 1960's, a pattern emerged in which each new pair of low and high agreements was associated with lower profit shares than in the corresponding agreements of the preceding high and low pair, so that the profit share declined from each pair to the next.

The trend is interrupted in the 1971 and 1973 and 1974 periods, with the sharp rise in profits in 1973 and 1974, but is restored by even stronger movements in the opposite direction over the next two periods. On the basis of the EFO analysis, this should have led to insufficient investment in the C sector. And this is essentially what was perceived to be occurring already in the second half of the 1960's.

The 1970 *Long-Term Survey*, the government's normally quinquennial projection of economic trends and their implications for policy, pointed to current payments deficits in the boom years of 1965 and 1969–70 considerably larger than in the preceding postwar period as symptoms of a basic deterioration in Sweden's external position, and defined the restoration of external equilibrium as the central problem of economic policy. To solve the problem during the coming five-year period, the *Survey* estimated that industrial investment would have to grow by a 6.5 percent annual rate, more than twice as fast as in the preceding quinquennium and faster than at any time since the investment boom of 1958 to 1962.

The principal obstacle to the needed acceleration of investment that the *Survey* anticipated was a decline in profit margins averaging 1.2 percent per year during the 1960's. The fall in profits had reduced business savings to the extent that a declining portion of investment was self-financed even though the rate of investment itself had gone down. Because a large part of the required increase in external financing took the form of borrowing, the debt-equity ratio increased. Assuming no further decline in profits but no increase either, the *Survey* pointed out that a marked further decline in self-financing would have to occur if the required investment was to take place.

If financed by a corresponding increase in borrowing, the result would be an additional increase in the debt-equity ratio. Firms whose financial vulnerability was thereby increased were expected to be less willing to undertake the more risky new investments, making it likely that the increase in investment would fall short of what was needed. If so, the *Survey* concluded, "economic policy would be faced with the task of promoting the supply of risk-bearing capital, besides taking varied measures to stimulate investment propensity in private business."

Public Savings and Private Investment

If the *Survey* was right, one of the central issues left unresolved in the Rehn model, as initially formulated, had come to the surface: whether public-sector savings can actually be translated into industrial investment to the extent required to maintain external equilibrium, even if public-sector savings do grow enough to offset the decline of business savings in aggregate terms. Public-sector savings did grow more than enough to offset the decline of business savings observed in the 1960's, and the AP fund accounted for most of that growth. In fact, its growth alone exceeded the decrease in business savings. These trends are clearly displayed in Tables taken from a recent study of "Social Insurance and Saving in Sweden."

Underlying the change in the composition of savings is the change in the distribution of domestic factor income shown in Table V–1. The comparison of the five-year average increase over 1965 to 1969 with that over 1955 to 1959 is the most relevant at this point in our discussion. It shows declines in the shares of both retained income by business and income distributed to households, along with an increase in employer contributions to social insurance.

TABLE V-1.—COMPONENTS OF SWEDISH DOMESTIC FACTOR INCOME EXPRESSED AS A PERCENT OF TOTAL DOMESTIC FACTOR INCOME (5-YEAR AVERAGES) [1]

Component	1955–59	1960–64	1965–69	1970–74	1972–76
Income distributed to households of which	87.8	87.2	85.0	82.9	81.8
Compensation of employees, excluding employer contributions for social and private group insurance and other ends	60.7	63.8	65.9	67.3	67.0
Proprietors' income and rental income of persons	10.9	9.3	7.5	5.9	5.8
Dividends	.9	.7	.5	.5	.5
Other incomes [2]	15.3	13.4	11.1	9.2	8.5
Employer contributions of which	3.9	5.9	8.8	11.5	14.6
Social insurance	.7	2.6	5.1	7.3	9.8
Private group insurance	.8	.9	1.2	1.7	2.2
Other contributions to the public sector	2.4	2.4	2.5	2.5	2.6
Income retained by businesses	8.3	6.9	6.2	5.6	3.6
Domestic factor income	100.0	100.0	100.0	100.0	100.0

[1] The principal difference between domestic factor income, appearing in this table, and national income, as defined and used by the U.S. Department of Commerce, is that the present table excludes net compensation of employees from abroad and net property and entrepreneurial income from abroad.

[2] The main components of this item are net interest income accruing to households, imputed income for owner-occupied homes, and an unidentified residual. A continuous decrease in the latter lies behind the relative decline in the Other Income item.

Source: Aleksander Markowski and Edward E. Palmer, "Social Insurance in Sweden," in George M. von Furstenberg, ed., Social Security Versus Saving (Ballinger, 1980), p. 190.

Tables V–2 and V–3 show the changes in the sectoral distributions of net savings—gross savings less capital depreciation or what remains for net investment. There was a large decline in net savings of nonfinancial business as a percentage of GNP and an even larger decline as a percentage of total net savings. The same is true for household savings. Thus, there was a significant decline in private savings as a whole. The increase in public net savings as a percentage of GNP more than offset the decline in the private net savings share, so that there was an increase in total net savings in the economy. The growth of the AP fund, which comprises virtually all of the Social Insurance Funds item, accounted for two-thirds of the increase in the share of public net savings in GNP and over three-quarters of the increase in its share of total net savings.

TABLE V-2.—NET SAVING BY SECTOR AS A PERCENT OF GNP IN SWEDEN (5-YEAR AVERAGES)

Sector	1950–54	1955–59	1960–64	1965–69	1970–74	1972–76
1. Total private saving	9.1	7.8	7.4	4.9	5.1	4.7
Of which:						
Households	4.5	4.5	4.6	2.6	3.2	4.2
Nonfinancial businesses	3.7	2.5	2.1	1.4	.6	−.9
Financial businesses	.9	.8	.7	.9	1.3	1.4
2. Social insurance fund increases	0	.1	1.7	3.7	4.6	4.5
3. Central and local governments	2.9	4.0	5.5	5.8	3.9	2.8
Of which:						
Local governments	1.8	2.1	2.4	3.8	3.0	2.5
Central government	1.1	1.9	3.1	2.0	.9	.3
4. Total public saving (2+3)	2.9	4.1	7.2	9.5	8.5	7.3
5. Net national saving (1+4)	12.0	11.9	14.6	14.4	13.6	12.0

Source: National Income Accounts.

TABLE V-3.—NET SAVING BY SECTOR AS A PERCENT OF NET NATIONAL SAVING IN SWEDEN (5-YEAR AVERAGES)

Sector	1950–54	1955–59	1960–64	1965–69	1970–74	1972–76
1. Total private saving	76.2	65.8	50.7	34.0	37.9	38.0
Of which:						
Households	38.0	37.9	31.5	18.1	23.8	37.0
Nonfinancial businesses	29.9	21.3	14.1	9.9	4.0	−10.8
Financial businesses	8.3	6.6	5.1	6.0	10.1	11.7
2. Social insurance fund increases	0.	.8	11.7	25.6	33.6	38.4
3. Central and local governments	23.8	33.4	37.6	40.4	28.5	23.6
Of which:						
Local governments	16.1	17.8	16.6	26.4	22.1	19.9
Central government	7.7	15.6	21.0	14.0	6.5	3.7
4. Total public saving (2+3)	23.8	34.2	49.3	66.0	62.1	62.0
5. Net national saving (1+4)	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Income Accounts.

The growth of the AP fund is also reflected in the rapid increase in its share of lending in the so-called organized credit market—the institutions subject to the jurisdiction of the central bank. As Table V–4 shows, the AP fund's share of net lending averaged 35 percent at its peak during the early 1970's. Compared with the period just prior to the establishment of the fund, the private insurance companies' share went down by half to 13 percent, while the share of banks other than the central bank fell from 65 to 47 percent.

TABLE V-4.—DISTRIBUTION OF SUPPLY AMONG LENDING SECTORS ON THE SWEDISH CREDIT MARKET: NET FLOWS (MULTIYEAR ANNUAL AVERAGES, 1955 TO 1976; ANNUAL, 1977 TO 1979)

[In percent]

Sector	1955–59	1960–64	1965–69	1970–73	1974–76	1977	1978	1979
Public insurance	1	20	28	35	25	28	18	17
Private insurance	26	13	10	13	14	17	15	14
Central bank	4	4	6	1	9	−5	7	17
Other banks	65	55	49	47	40	53	53	40
Other	4	8	7	4	12	8	7	12
Total	100	100	100	100	100	100	100	100

Sources: 1955–1976, "Kapitalmarknaden i svensk ekonomi" (The Capital Market in the Swedish Economy), SOU, 1978: 11, p. 165, table 2.7; 1977–73, "The Swedish Economy," various issues.

All the tables also indicate the decline in the effectiveness of the AP system as a mechanism for collectivizing savings as its function of providing pensions comes into full operation. In the absence of a decision to maintain its net saver capacity by, for instance, substantially increasing the payroll tax on which that capacity is based, a reprivatization of savings can occur, as it indeed has. Such a "nondecision" is part of the pattern of policy under the governments in office since 1976 that has tended to reverse the direction taken under the Social Democrats. We shall return to this point later on, but it should be noted that a decision was made to raise the fee paid by employers into the AP fund flowed out to finance business investment. Except for small amount, 0.25 percent.

In full conformity with the Rehn model, then, there was a marked collectivization of savings in the 1960's, largely attributable to the

AP fund. Moreover, a substantial portion of the savings drawn into the AP fund flowed out to finance business investment. Except for 1970, as shown in Table V–4, about a third of the AP fund's lending went to the business sector as a whole, with about a quarter going to industry. This accounted, on average, for a little over a third of all business-sector financing on the credit market, including new issues of shares during the years from 1966 to 1971, and an average of one quarter of all such financing by industry from 1966 to 1974.

It should be pointed out that less than a third of industrial financing took place on the organized credit market over that period. Of the remainder, the largest portion, accounting for over a third, was done on the so-called "grey market," which is not subject to control by the central bank and which consists primarily of interfirm trade credits. A little under a sixth took the form of various short-term liabilities, such as pending tax, pension, and wage payments, while the remainder was divided between intrafirm credits and foreign borrowing.

Credit from the AP fund is channeled to business in three basic ways. One is by the AP fund's direct purchase of bonds issued by companies, normally only the large ones. Another is by a complicated system of "reborrowing." This gives banks or other designated lenders an automatic right to borrow from the AP fund amounts equal to loans they make to employers of up to half of the fees (payroll taxes) paid by the employers into the AP fund in the preceding year. (This period was recently extended to make the system more useful to small companies.) The third way is through a set of financial intermediaries, including some old ones revamped for the purpose and a state investment bank established in 1967. These intermediaries have been growing in importance and so something more needs to be said about them.

There are nine special financial intermediaries in existence today, six of which cater to the business sector. The state-owned investment bank, Investeringsbanken, and Företagskredit, ownership of which is divided half and half between state and the commercial banks, are the two largest, with about the same volume of lending on average. They account for roughly half of lending by all the intermediaries in this category. The volume of lending of a third, Svensk Exportkredit, which obviously provides export credits, is almost as great. These three intermediaries' combined share of total industrial borrowing on the domestic credit market rose from 6 to 17 percent between 1966 and 1974. Most of the intermediaries' supply of loanable funds comes from borrowing on the bond markets, domestic and, now, increasingly foreign, which they are allowed to undertake up to varying multiples of their own capital. The AP fund has been the major purchaser of their bonds, financing 69 percent of their outstanding loans as of 1976. Thus, the intermediaries function as a means by which the savings accumulated in the AP fund is channeled to companies, mostly small and medium ones, not in a position to tap those savings themselves by going into the bond market.

In addition to its direct contribution to business borrowing, the AP fund's presence on the credit market has evidently eased the supply of credit for business indirectly by bearing a substantial part of the burden of housing finance. Throughout the postwar period, the Social Democrats pursued an extremely ambitious housing program. It was

accelerated in 1965 when they announced the target of a million new dwelling units by 1974. This target was reached, with a little to spare, with housing construction rising to a peak rate of 13.6 units per 1,000 inhabitants, which was exceptionally high by international standards.

The apparatus of controls through which the central bank regulates the credit market was built up largely to assure the availability of credit to finance the housing program from the early postwar years on. These regulations tended to maintain a chronic scarcity of credit relative to the demand from borrowers other than the housing sector or the central government, which was the other sector whose borrowing needs were accorded priority through the controls.

During the 1950's, this meant that industry was largely shut out of the bond market. Since the other sources of finance for industrial investment were abundant—first, high retained profits, and then an increasing volume of credit in the form of deferred taxes, which we shall discuss later on—this probably imposed no serious constraint on investment. When business borrowing needs increased during the 1960's, as the 1970 *Survey* pointed out, access to the bond market was opened up to business, although it was subjected to severe credit crunches on several occasions, particularly when the government drastically tightened monetary policy in 1969–70.

The capacity of the bond market to meet business needs while also financing housing growth, though strained from time to time, was undoubtedly reinforced significantly by the growth of the AP fund. It was precisely during the period in which housing construction was at its height that the AP fund's share of total lending was at its largest. During the 10 years over which the "million program" was carried out, the AP fund accounted for an average of 37 percent of the housing sector's total annual borrowing needs, including both construction credits and mortgage finance. Over the same period, it accounted for an average of 52 percent of the annual net increment to the total volume of outstanding housing bonds, a large portion of which financed the lending by special intermediaries that provided mortgage loans.

On the basis of an econometric analysis, the study referred to earlier concluded that the AP fund's growth exceeded the decline in personal savings that could be attributed to the presence of the AP system, so that the net effect was an increase in total savings in the economy. Since the supply of credit to housing would probably have been assured in any case through credit market controls, it seems likely that business might have been crowded out of the domestic credit market, with an inhibiting effect on investment, in the absence of the AP fund.

Despite these substantial contributions to the finance of investment made by the growth of collective savings through the AP fund, it did not provide a solution to the emerging problem of financing investment that the 1970 *Survey* identified. Whereas the public-sector savings accumulated by the AP fund was channeled to industry in the form of loan capital, the need, if the *Survey* was right, was for an increased supply of equity capital. This view has been a dominant one in the discussion of the problem of investment in Sweden. To be sure, the discussion was temporarily deprived of any urgency by the

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1973–74 boom, with its extremely high profits and somewhat more moderate but substantial rise in investment.

With the collapse of profits and investment in 1977, however, the discussion was renewed with an even greater urgency, and the basic argument advanced by the 1970 *Survey* has been reiterated and elaborated in a number of more recent official and private studies. Nevertheless, the argument is open to some doubt, at least as far as it applies to the period preceding the 1970's crisis. Since our understanding of that crisis is that it is an extreme expression of tendencies already discernible over the preceding decade, it seems in order to call attention to these doubts.

Alternative Interpretations

It is not self-evident how the secular decline in the profit share in C sector value added should be interpreted. A similar decline in the profit share is observable in many comparable countries. If wage pressure has much to do with the decline, it may then be more the consequence of a close approximation to full employment common to those countries during most of the postwar quarter century than of wage determination systems that differ among them.

At the same time, the very growth that underpinned full employment may have contributed to the decline in the profits share through effects other than wage pressures. Among them may have been a decline in the cost of capital over the postwar period, as the experience of stable growth built up confidence that the growth would last, thereby reducing risk premiums and increasing the "optimum debt-equity ratio." As a consequence, the required rate of return for investment in real capital could decline.

In addition, management's willingness to bid up wages to attract labor might have increased. If so, the wage drift corresponding to a given profit share would rise. For LO to reduce drift by the same amount as in the past, as required for organizational cohesion, it would have to get larger contractual increases than in the past. Thus it would appear that contractual wage settlements were pushing the profit share down, when, in fact, the declining share of profits due to the other factors was pushing contractual wage increases up.

Under these circumstances, EFO model's norm of constant shares would understate the scope for contractual wage increases. The consequences of the declining profit share would, therefore, not necessarily be those anticipated by the EFO model—it would be possible for the system to get along quite well in spite of it.

It has in fact been argued that, over the quarter century ending in 1976, there is "no longrun trend for profitability . . . neither rising nor falling," as opposed to the declining profit share, and that "the relationship between equity capital and total capital" has not been weakened as much in Sweden as has been generally alleged. While we cannot review this argument in detail, it is based in part on an aspect of Social Democratic policy to which it is necessary to give some attention, namely the tax treatment of profits. This has been a principal way in which policy has been designed to encourage investment for a long time in Sweden.

There are several ways in which a proinvestment bias has been built into the Swedish corporate tax system: provisions for variable and accelerated depreciation, intermittent special investment tax incentives, allocations to inventory reserves, and allocations to investment reserves—the so-called investment reserve fund (IF) system. These provisions give companies a great deal of discretion in determining their taxable incomes so as to reduce their tax liabilities. The IF system is of particular interest and calls for some detailed discussion.

Originally established in 1938 (along lines proposed by the Federation of Industry), the IF system is aimed at influencing the timing of investment relative to the business cycle, shifting it from booms to recessions. It is designed to do so by exempting from corporate tax a portion of gross profits which companies are allowed to set aside when demand is high, provided that they are used for investment when demand is low. Companies did not take much advantage of the system until 1955. This was partly because there was little more to be gained from it than from the extremely generous depreciation rules in effect until then.

To induce greater use of the IF system, so as to increase its effectiveness as a stabilization policy instrument, a major revamping of the system in 1955 was accompanied by a tightening of the depreciation rules, which nevertheless remained quite generous. An additional incentive to use the IF system was provided by raising the central government corporate tax rate from 40 to 50 percent at the same time. This was cut back to 40 percent in association with the introduction of the AP system and reintroduction of a sales tax in 1960. These moves marked a shift in the tax burden from companies to households, especially insofar as the AP payroll tax is, with some apparent lag, shifted to households, reflecting an additional pro-investment bias in the tax structure as a whole.

Profits are not exempt from local government taxes, but these taxes are deductible for central government tax purposes. The overall statutory profits tax rate is a combination of the two, running at about 56 percent during the early 1970's when the average local corporation income tax was 26 percent. The effective rate, as we shall see, is much lower. The 1955 IF legislation made the system more attractive to companies in a number of other ways which need not be described here.

The main features of the system are as follows. Companies can set aside up to 40 percent of each year's pretax profits as investment reserves. Of the amount set aside, a portion must be deposited in a blocked noninterest-bearing account at the central bank. Initially set at 40 percent, this portion was subsequently raised to 46 percent. The introduction of this deposit requirement obviously made the system potentially more effective in reducing companies' liquidity during boom periods.

Companies pay no central government tax on the profits set aside if they later invest those funds under any of certain specified circumstances, of which there are three main ones. The principal one is a "general release," which occurs when the government declares that the funds may be used to finance all or specified types of investment during a designated period, ordinarily in a slump when the object is to stimulate domestic demand. General releases carry with them the incentive of an

additional reduction of taxable profits by 10 percent of the cost of investments financed by IF.

The second circumstance is a "special release" which occurs when the government allows the funds to be used by companies in particular regions or industries or even for individual investment projects—clearly lending itself to a kind of negotiated regional or industrial policy. Finally, 30 percent of any funds that have been set aside for five years can be used for certain types of investment in the absence of either of the two kinds of release.

The 1955 changes clearly had their intended effects. The number of firms with IF allocations rose from 846 in 1956 tol 6,444 in 1975. While the level of accumulated IF allocations remained almost unchanged at around 250 million Skr in the early 1950's, they jumped to 539 million in 1956 and continued to grow rapidly thereafter, reaching 6.7 billion Skr in 1975. In somewhat more meaningful terms, IF allocations increased from 0.4 to 2.3 percent of GNP over the same period. The first general release in 1958, confirming that the system would in fact work as promised, provided a strong impetus to its growth. Special releases became increasingly frequent as the government came to use the IF system more and more for regional and industrial as well as stabilization policy purposes.

The IF system clearly contributed to a substantial reduction in the tax burden on profits that occurred in the decades following its activation. From 1955 to 1975, business profit taxes as a percentage of GNP fell by more than half, from 2.9 to 1.4 percent, while the share of business profit taxes in total taxes fell even more, from 11 to 3 percent. Profit tax as a share of value added in Swedish industry (as opposed to the business sector as a whole) declined from an average of 10.4 percent in 1953–57 to 2.4 percent in 1973–75.

Whatever the reason for the reduction in the share of gross profits in industrial value added from an average of 33.6 percent in 1953 to 1957 to 24.4 percent in 1969 to 1973 (setting aside the profits boom period of 1973 to 1975, which is the last period for which data are at hand), the gross profits trend seems to have had virtually no effect on the ratio of gross savings (cash flow) to value added, which only fell from an average of 18.4 percent in 1953 to 1967 to 18.1 percent in 1969 to 1973. (It rose to a peak of 21.9 percent in 1957 to 1961, falling thereafter until it jumped to a new peak of 23 percent in 1973 to 1975.)

Clearly, the level and share of profits taxes must decline insofar as gross profits decline. However, according to the study by Jan Södersten from which the data cited here have been taken, *Bolagsbeskattningens verkninger* (The Effects of Company Taxation) SOU 1977:87, only about half of the decline in the share of profits tax in industry value added is attributable to a decline in actual pretax profits while the other half is attributable to the reduction in taxable profits made possible by the various opportunities provided by the corporate tax system. The combined effect of the various provisions was to reduce the effective tax rate dramatically, from an average of 47 percent in 1953 to 1957 to 26 percent in 1969 to 1973 and 18 percent in 1973 to 1975, the period in which the profits boom occurred and both the scope and incentive to reduce taxable profits was especially high.

The resulting decline of the average cash flow ratio of only 0.3 percentage points—from 18.4 to 18.1 percent—from 1953–1957 to 1969–1973 can be accounted for by positive changes in the tax ratio of 7.5 percentage points and in the dividend ratio of 2.9 percentage points, which together almost completely offset negative changes in the profit ratio of 9.2 points and net financial transactions ratio of 1.5 points. As an executive of one of Sweden's largest industrial companies put it, "It would be hard to develop a tax system kinder to cash flow." The extent to which the system contributed to structural change is another question, however, for since it rewards only companies that have made profits in the past and are not necessarily the ones with the best growth prospects in the future, the system would tend to have a conservative effect on the industrial structure. In addition, while it seems to favor the most profitable firms in the same way that solidaristic wage policy does—insofar as it actually works as it is supposed to—it would appear to cushion companies from the squeeze on profits on which the viability of solidaristic wage policy seems to depend.

It should be stressed that the corporate tax relief built into the tax system by the IF system and depreciation allowances, as well as most of the other provisions, does not consist of unconditional tax breaks. Companies can take advantage of them only insofar as they actually plow profits back into investment. As long as companies do meet this condition, the corporate tax system is indeed extremely generous to them. On the other hand, this is not matched by similar generosity to shareholders.

Unlike many other European countries, Sweden retains the so-called system of double taxation of company income, including whatever corporate income after tax may be distributed to shareholders as part of their ordinary taxable income, subject to the rather high income tax rates, especially at the margin, that would ordinarily apply to the relatively rich minority who hold shares. What eases the effective tax rates for people in those high brackets is the ample opportunities for financing consumption by borrowing and deducting the interest from their taxable income.

The effects of all these features of company and individual taxation on the financing of investment and, in turn, on the composition of investment are the subject of considerable controversy, to which we shall refer later on. The point here is simply that the tax treatment of profits leaves profitable companies in a substantially better position to finance further investment than would appear if one looks only at such measures as the decline in the profit share of value added to which the EFO model directs attention.

Even if the arguments concerning the causes and consequences of the declining share of profits just referred to are valid, it does not necessarily mean that the viability of Sweden's position in the international economy was not eroding in the later 1960's. It is quite possible that the EFO model's norm understates rather than overstates the investment requirements for external equilibrium. This could be the case, for example, insofar as one of the key assumptions on which the model is built, that productivity growth is determined exogenously by an autonomous development of science and technology, is incorrect.

The direction of causality between wage growth and productivity growth could, in fact, be the reverse of that postulated in the EFO model: productivity growth could be the result of rationalization and structural change undertaken in order to maintain profitability in the face of increasing wage pressures. The demand for labor-saving technology would guide technological development, and investment would be concentrated on such technology rather than on capacity expansion.

At the same time, product lines and firms would be closed down at higher levels of productivity and profitability. This might then be interpreted as substantial productivity growth and steady profitability in the firms and product lines that are left in the C sector. However, the net result might be insufficient expansion of these firms as others, unable to remain competitive in the face of higher wages, contract. The total value of C sector output might then be too small to maintain external equilibrium.

This, according to a number of analyses, including the 1980 *Survey* just issued, is exactly what happened, especially since 1967–68 when, as can be seen from Figure V–1, the profits squeeze intensified. One measure of the decline in the size of the C sector since then is the sharp drop in labor input in industry, which is roughly equivalent to the C sector, as indicated in hours worked. The employment effects were offset largely by a rapid expansion in the public sector. While this expansion certainly reflected the explicit political priority placed on increasing the provision of collective services, it has also been attributed in some analyses to an "ultra-Keynesian" policy of maintaining full employment regardless of how the wage determination system operates.

Although the resulting increase in the service component of consumption may contribute to external equilibrium because its import content is low, the resulting growth of total consumption may still mean greater demand for tradables than can be met consistently with balance-of-payments equilibrium by the declining C factor, further contributing to structural disequilibrium in the payments balance. This is aggravated to the extent that the changing composition of the C sector, with manufacturing replacing raw materials to an increasing extent, means that the import content of C sector output is increased.

An additional argument is that, while the aggregate level of investment in the C sector was too low, a significant portion of the investment that did take place in the late 1960's and early 1970's was misallocated. For example, a large amount of that investment went precisely into those raw materials-based industries and shipbuilding which turned out to be the ones experiencing the most severe structural problems after the mid-1970's.

In any case, whatever relationships among wages, profits, and investment may have been sustainable before the crisis of the mid-1970's, that very crisis created a new situation. Accordingly, the explanation of declining profit shares as a consequence of falling capital costs, as well as the other arguments that minimize its significance, would seem to apply to a period that is now over. As the Swedish economists offering that explanation themselves point out, the confidence in sustained growth that lowered risk premiums and raised debt-equity norms could

hardly have survived "the wave of instability that swept over the market economies during 1973 to 1976." Consequently, the long-term level of profitability they claim to have maintained in the past—

> . . . may prove to be too low to produce an investment boom of the magnitude required in the 1980's to solve the problem of external balance through rapidly rising industrial production and exports. In a new environment filled with uncertainty concerning raw material prices and the economic stability of the rest of the world, either an upward shift in the average level of profitability over the business cycle or institutional intervention in the economic system will presumably be required to achieve the central goal of balance in foreign trade.[2]

Accordingly, the problem on which the 1970 *Survey* focused attention has now become a serious one, even if it was not as serious a decade ago as it appeared then, and the issue involved in coping with the problem is clearly posed: to overcome the structural disequilibrium in Sweden's relation to the international economy, a substantial increase in industrial investment is needed. The issue is how it is to be brought about. As we indicated, the response toward which Social Democratic labor movement policy has been evolving is the socialization of investment or, in the language of the economists just quoted, a form of "institutional intervention in the economic system."

So far, we have only described the initial stage in that evolution, the Rehn model, which established its direction. However, as we saw, the Rehn model, at least as initially formulated and then implemented, did not work out the structural change strategy to its logical conclusion, for it left unresolved the question of how the savings shifted from private to collective institutions could be channeled into investment. The need to answer this question, sooner or later, was already recognized in LO discussion in the early 1960's and pressed increasingly since then. The main lines along which LO has sought to answer the question and the Social Democratic responses to LO's initiatives will be reviewed in the next session.

Collective Savings and Equity Capital

There were two lines along which LO sought to provide equity capital on the basis of collective savings. One was to use the institution for collective savings already in existence at the national level, the AP fund, modifying the rules governing it so as to turn it into a source of equity as well as loan capital. The other was to establish new institutions for collective savings at the level of the firm by which a portion of profits would be turned into equity capital in the form of shares held by the institutions, which would be administered by the unions.

Both institutional changes would have potentially far-reaching implications. The provision of equity capital carries with it ownership rights, including claims to control as well as income. Providing equity capital out of collective savings as sought by LO accordingly implies the growth of collective ownership. It thereby violates the terms of the "historical compromise" on which the consensus over the Swedish model rested. Not surprisingly, LO's proposals for collective capital formation, the second much more than the first, aroused intense con-

[2] Villy Bergstrom and Jan Södersten, "Nominal and Real Profit in Swedish Industry." Skandinaviska Enskilda Banken Quarterly Review, 1–2 : 1979, p. 50.

troversy, and the Social Democratic Party hesitated in adopting them. It did so only after considerable delay, and after significant compromise. Nevertheless, institutional changes along both of the lines LO pursued have become part of Social Democratic policy, carrying it considerably closer to socialization of investment. Only the first proposal—the modification of the AP fund—could be introduced before the Social Democrats went out of office in 1976. The second can only be introduced if the Social Democrats return to office. The issue of whether it should be introduced, which played an ambiguous and subordinate role in the last two elections, promises to be a focal one in the next, much as the AP system itself was in the elections of 1958 and 1960.

LO first broached the issue of AP fund share purchases in a report—not a policy statement—to its congress as long ago as 1961. The failure to give the AP fund the right to make investments in shares was criticized in the context of a general discussion of the need for greater "mobility of capital," as well as labor, in order to facilitate structural change. Taking another step beyond the Rehn model, LO argued that investment could not be left to itself even if increased public savings offset the decline of business savings, but that government planning and banking institutions were also needed to coordinate the process. In addition, LO suggested mechanisms for capital formation which it characterized as neither government nor private ownership, but as a kind of "social enterprise without owners." These were no more than habingers of the positions LO would develop in the years ahead. In the context of apparently successful economic policy and secure political power, no progress occurred.

By the middle of the 1960's, as we indicated earlier, difficulties in economic policy began to be encountered. Therefore the need for changes in policy began to be taken more seriously. The 1966 LO congress formally called upon the government to give the AP fund the right to purchase shares. It also saw the rights thereby acquired as an instrument of an industrial policy needed to guide structural change, although little was said about what that policy should be. Much was said about the need to protect workers more fully from the impact of technological and structural change than they had been, despite the massive expansion of manpower policy.

This reflected a growing reaction against the high mobility, geographical as well as occupational, on which the structural change strategy had been predicated. The costs of the mobility were proving to be greater than anticipated, and they were not being shifted from the individuals involved to the society as completely as expected. The discontents aroused by the impact of accelerated structural change were evident not only within the unions but more generally, and were being articulated politically by critics to the right and left of the Social Democrats.

The political potential of these discontents was dramatically demonstrated by a sharp setback inflicted on the Social Democrats in the 1966 local government elections, cutting their share of the vote to 42 percent, the lowest since 1934. In the aftermath, the party leadership concluded that it was the party's neglect of the "negative effects of structural rationalization" that was largely to blame for their losses.

This, more than the difficulties experienced in managing the upswing in 1965–66, triggered a stream of policy initiatives aimed at better control of the economic process. Most of these initiatives were combined under the rubric of a "new industrial policy," or "economic development policy,"—the latter conveys the broader meaning of the Swedish term a little better. The declared aim was to assure full employment and growth by encouraging structural change, while meeting the demand for security and greater equality in income, wealth, and influence. This was said to imply four tasks: (1) to assure the supply of capital to enterprise, (2) to improve and strengthen the society's economic planning resources, (3) to stimulate technical research and development, and (4) to use state enterprise as an active instrument of industrial policy.

The new policy meant the establishment of several new institutions. The first was the state investment bank. Authorized at the outset to borrow up to five times its capital, provided by the budget and originally set at 500 million Skr, the Bank was expected to serve as a means by which AP fund savings could be more actively and selectively used for industrial investment than in the past. In particular, it was supposed to provide long-term loan capital for investment projects, especially in areas of advanced technology, bearing the risks which existing suppliers of capital were unwilling to bear. Other new institutional arrangements included a new Ministry of Industry to oversee the implementation of industrial policy, a Board of Technical Development in which governmental support for industrial research and development was consolidated, and a State Enterprise Holding Company to rationalize and expand the motley group of state-owned industrial companies.

The government also intensified its efforts in already-established policy areas that had a direct bearing on the discontents manifested in the 1966 election. In housing policy, the government set up new procedures for physical planning and for credit allocation. A "delegation for housing finance" was established which will be described later on. Also, new banking legislation was introduced to break down segmentation and increase competition on the supply side of the credit market by authorizing universal banking. In manpower policy, there was a large infusion of funds. And this was only the beginning of a major reorientation of manpower policy, which reached its full strength only in the 1970's.

The new industrial policy was rushed into place largely to demonstrate a capacity to cope with the problems leading to the 1966 election debacle. It was accompanied by an intensive effort to mobilize the party rank and file around the new policy, including a special party congress on the subject in 1967 and concentration of attention on it at the regular 1968 congress. This effort seems to have paid off: the election in 1968 gave the Social Democrats the second of the only two majorities they ever won.

The economic results were meager, however. In part, they had to be, for the measures taken could only have significant effects over an extended period. Also, there was a goodly portion of error in the trial-and-error process of learning to do what some other countries had been doing for a lot longer. Meanwhile, short-term stabilization policy was

not able to prevent the instability that had appeared in the middle 1960's from reappearing again at the end of the decade. This time, the consequences made themselves felt most acutely in a threat to the Social Democratic labor movement's power in the market rather than in the state arena.

A wave of wildcat strikes starting in the northern state-owned iron mines spread to other parts of the country in the winter of 1969–70. This jolted the LO leadership into the recognition that reactions against its emphasis on centralized wage policy were making the unions' authority vulnerable, because of neglect of workplace issues as well as wage restraint. There were two responses. First, they launched an offensive against existing restrictions on the unions' power to deal with workplace issues, and to strengthen the legal protection of job security and health and safety. Second, they renewed the drive for institutional mechanism to supply equity capital in the form of collective savings and through them for influence over investment decisions. These two themes were the focus of LO's 1971 congress.

As far as workplace issues were concerned, LO's initiatives reinforced the reorientation of manpower policy that had begun in the mid-1960's. The theme was taken up and pressed by TCO as well, providing the Social Democratic government with an opportunity to pursue policies in response to interests defined as common to wage earners as a whole. The result was a stream of legislation on employment security, the work environment, and trade union rights, culminating in a 1976 law on "joint determination" that entitled unions to engage in collective bargaining on the whole range of workplace and enterprise issues previously declared out of bounds by the employers. In all, this amounted to a significant modification of the structural change strategy, shifting the emphasis from adapting the labor supply to jobs shaped by managerial criteria, to an adaptation of jobs to criteria defined by labor, both through manpower policy and collective bargaining.

The AP fund's role as a source of equity capital was set within the framework of a general discussion of how investment should be financed at the 1971 congress. A resolution by the metalworkers union stated the central issue this way: "how increased resources can be provided for investment without having negative effects on the distribution of wealth." The motion cited the 1970 *Long-Term Survey's* analysis, stressing the need for increased investment and also for increased equity capital to finance it. But it declared that the need for capital formation in the 1970's could not be met as in the preceding decades, when financing investments largely by profits increased the concentration of wealth and power among the few "who dominate ownership in banks and industry."

Other resolutions and a wage policy report stressed the need for alternative mechanisms for capital formation on the related ground that the existing mechanism tended to undermine solidaristic wage policy. This was beginning to happen for the first time in that differentials between high and low paid workers were evidently being narrowed as a consequence of the central agreements to a greater extent than they were by market forces, thereby create strains both where wage drift occurred and where it did not. The passage of these motions

set two processes in motion: an intensification of pressure on the government to tap for equity capital the collective savings already available at the national level in the form of the AP fund; and the design of another form of collective savings at the enterprise level, to be considered at the next LO congress in 1976.

Soon after the 1971 congress, LO presented its views on the AP fund to the government in a long memorandum. Invoking the 1970 *Survey's* argument as evidence of the need for increased industrial investment and for equity capital to finance it, the memorandum stressed the importance of how the investment was brought about.

First, there was the matter of allocation. The assurance that investment would go where needed to preserve industry's international competitiveness could be provided only with the aid of planning over a longer time perspective than market signals provide. While large corporations understood this the planning could not be left to them; the whole society's future was at stake, and so the society had to have a much more effective role in the planning process. More had to be done than industrial policy had accomplished thus far.

Second, there was the matter of financing. The memorandum built on the 1970 *Survey's* argument that the main need was for more equity capital. The choice was whether to meet that need from private or collective savings. The private options were rejected on the ground that they are inadequate and have unacceptable consequences from both the allocative and the distributive point of view.

Internally generated private savings are inadequate because profits are too low, but letting them increase enough to provide the needed capital is no solution. This would permit excessive self-financing, rendering firms insensitive to stabilization policy and exerting a conservative effect on industrial structure. It would also increase the already high concentration of wealth and power. This runs counter to trade union movement demands both for a reduction in inequality and a "real influence not only on the volume (of investment) but also on how and where it is carried out."

Financing investment out of external private savings is similarly rejected. The supply of such external savings was found to be inadequate on the ground that industry only financed 4 percent of its investment during 1965 to 1969 by raising equity capital on the stock market. To increase the supply would again presuppose further increasing inequality.

This leaves collective savings as the only adequate and acceptable source of investment finance. Since collective savings was already available in one form, the AP fund, it should be put to use without waiting until other forms, such as LO was considering, were designed. Various technical arrangements for doing so were reviewed without insisting on any of them. The main thing was to go ahead.

This time LO got results, although it took two or more years before they materialized. A capital market commission, appointed in 1968 to review the effects of the AP fund, as provided in the legislation establishing it, was assigned by the government to look into LO's proposal and come up with a recommendation. The outcome was the establishment of a new unit in the AP system for the purpose of purchasing shares with money drawn from the rest of the system. This

new unit is referred to as the Fourth Fund, distinguishing it from the other three funds, with separate boards but a common administration, into which the AP fund was organized. The Fourth Fund, which went into operation in January 1974, has both a separate board and separate administration.

Initially, the Fourth Fund was authorized to purchase shares up to a limit of 500 million Skr. This was only a little over 5 percent of the fees paid into the AP fund in that year alone, and a bare 0.7 percent of the AP fund's total accumulation. On the other hand, the amount is substantial relative to the rather small Swedish stock market, where international transactions in shares are severely limited.

The net amount of equity capital raised on the stock market averaged only 564 million Skr a year during the 1960's, not much more than the Fourth Fund's limit. That limit was doubled in 1976, by which time the Fourth Fund had purchased 700 milion Skr worth of shares in a total of 26 companies. This included substantial holdings in some, including a 5 percent holding in Volvo, on the basis of which it had representatives on the boards of six companies including Volvo. Originally, no limit was placed on the proportion of any company's shares it could hold. A limit of 10 percent of the voting rights in any single company was imposed in 1979, which is still twice the limit on insurance company holdings.

Meanwhile, an LO committee carried out the assignment of designing an institutional arrangement for providing equity capital out of collective savings at the enterprise level. It came up with a collective profit-sharing scheme, referred to as the Meidner plan, after LO's senior economist who headed the committee (and whom Rehn credits as coauthor of the 1951 LO policy position). As adopted by the 1976 congress, the basic idea of the scheme is that some percentage of profits, say 20 percent, earned by all private firms above some specified size, be transferred in the form of new, directed issues of shares to a system of "wage earners funds," set up and administered by the unions. The portion of profits allocated to the funds would constitute new equity capital, remaining at the firm's disposal for investment. Instead of accruing to private shareholders, however, the new wealth thereby created would become the collective property of all wage earners.

Dividend income, like the shares, would not be distributed but used for a variety of services for all workers, such as education and the technical support which unions need to make effective use of the voice in workplace and enterprise decisions they had recently won. The voting rights and the claims to wealth that go with share ownership would also accrue to the funds. In time, the funds would gain controlling shares in their respective firms.

Essentially, the scheme can be understood as a way to make it possible for the unions to pursue a wage policy capable of reconciling the requirements of economic policy and organizational cohesion—that is, the same dilemma to which the Rehn model was addressed. How was the scheme expected to do so? To the extent that the growth in equity capital resulting from reinvested profits accrued to the funds instead of the original owners, other things being equal, investment would take place without a corresponding increase in the owners' wealth. Wage settlements permitting an increase in retained profits that are

reinvested on this basis would, therefore, not imply a corresponding transfer to private shareholders of wealth unions do not extract for their members in the form of wages.

Thus, if the share of profits allocated to the funds is 20 percent, profits could rise, increasing equity capital by that amount "without having negative effects on the distribution of wealth." Other things are not equal, of course, but whether their net effect would be to reduce or increase the original owners' wealth is a much disputed issue which cannot be pursued here.

In principle, the partial collectivization of business savings is designed to affect the link between profits and shareholders' income in the same way as solidaristic wage policy is designed to affect the link between profits and wage earners' income: that is, to weaken the link. This should make it easier to insulate wages from profits—a firm's ability to pay—and thereby easier to reconcile solidaristic wage policy with an increase in investment that is induced and partially financed by an increase in profits.

The scheme is by no means expected to enable all of the needed investment to be financed out of business savings. An increase in external finance, including equity capital, is assumed to be necessary as well. This too is expected to come out of an increase in collective savings, but at the national rather than enterprise level. The mechanism for this, of course, is taxation, and the AP fund is one variant of it. However, as the AP fund's growth levels off and even declines, and the consolidated public-sector surplus it largely accounted for is replaced by deficits, it becomes difficult to rely heavily on "tax-financed industrial expansion" in the foreseeable future.

The room for maneuver is consequently narrowed if the normal operation of the wage determination system makes it impossible to raise the needed equity capital through private savings. Major reliance would then have to be placed on the new form of collective savings at the level of the firm urged by LO, at least until the capacity of taxation to serve as an instrument for collective savings at the national level is restored.

The political conditions for restoring that capacity and especially for establishing collective profit sharing are remote. LO's proposal would mean the gradual but inexorable erosion of private property institutions as the basis for financing and controlling firms. Throughout the industrial core of Sweden's economy, private ownership would be displaced by something like "social enterprise without owners."

The Social Democratic Party leadership embraced this idea rather reluctantly, preferring to rely on the older form of collective savings channeled into the public sector by taxes and then back out to industry through a variety of public or semi-public intermediaries, together with some modicum of planning and selective industrial policy for allocating the capital. The party's initial discomfort and equivocation about LO's proposal, which was put on the political agenda not long before the 1976 election, probably contributed something to its defeat, though not much.

In the years since 1976, joint LO-party committees have been struggling to work out a mutually acceptable form of wage earner funds that might also be technically feasible and politically viable.

At the same time, an official commission appointed by the last Social Democratic government has also been considering alternative ways of doing what the Meidner plan was intended to do—or not doing it at all, as the business organizations and the conservative party have urged, while the middle parties, not surprisingly, have tried to stake out a position in between. The issue has been the focus of continuous discussion in the policy arena, occasionally flaring into intense controversy. As for the Social Democratic Party, it has evidently come around to the conclusion that there can be no solution to the problem of investment without at least some form of wage earners funds.

While the most recent version prepared by the joint LO-party committee, presented to the government commission and forthcoming LO and party congresses, is considerably watered down compared with the Meidner plan, it preserves the principle of collective rather than individual profit sharing, with trade union participation in the administration of institutions holding the shares. This participation would take place at the enterprise level and in a number of regional funds.

However, the scheme includes, in effect, a restoration of the AP fund's capacity as a mechanism for collective saving. The main source of money for the wage earners' funds would be an additional 1 percent payroll tax, which would be invested in shares, or then bought on the market or new issues directed to the funds. Allocations from company profits to the funds in the form of new issues of shares would also be made to the funds.

However, these would only correspond to some percentage of "excess" profits—profits above some level specified as normal. While smaller in magnitude, implying a much slower transfer of ownership than envisioned by the Meidner plan, this nevertheless does address the problem posed for solidaristic wage policy insofar as it fails to "take out" in wages all that a company can afford to pay. The proceeds from the funds would go to the AP fund, bolstering its lending capacity and defining the pensions it pays as the stake that individuals have in the scheme. This, as we shall see, is very similar to the requirement which the liberal minority government imposed on the AP Fourth Fund in 1979. Indeed, the latest version of wage earners funds might be viewed as a larger, more elaborate Fourth Fund.

While the tactical maneuvering over the issue of collective profit sharing cannot be described here, it should be noted that the position taken by TCO unions is critical to the political outcome, making them the target of intense pressures. In any case, with the Social Democrats out of office, there is no immediate prospect for any collectivization of business savings and probably none for any reversal of the trend toward the reprivatization of savings generally. Still, the present joint LO-party proposal marks a clear step, however, cautious, in the evolution of Social Democratic labor movement policy in the direction of the socialization of investment. We turn now to the rather more ambiguous evolution of policy in the opposite direction under the governments in office since 1976.

The Pattern of Economic Policy Since 1976

The dimensions of the economic crisis into which Sweden was slipping were only gradually becoming evident by the time of the 1976

election. Nonetheless, the cost gap was defined by the new government as the central economic problem as soon as it came into office. Its response took shape more slowly, however, not only because the deterioration still had some way to go and because it took some time to recognize its full extent, but also because the government's options were narrow. Many looked to it to restore the "effectiveness of markets" which the Social Democrats had allegedly impaired, particularly by their increasingly interventionist policies since the late 1960's, but also by the credit market regulations elaborated since the early postwar years. However, the new government and its two successors have so far not taken a drastic turn to the market like that of the Thatcher government in Britain and at least announced by the Barre government in France.

The political constraints against such a course were compelling. Unlike the Thatcher or Barre governments, the Swedish bourgeois governments had to reckon with a cohesive and credible alternative government. Under the circumstances, the first bourgeois governments in nearly half a century could not afford the political risks of appearing less concerned about full employment or the economic security of pensioners and others than the Social Democrats.

In addition, the divergence of views within the coalition has been sufficiently wide to preclude any such drastic action. The principal institutionalized base of support for the bourgeois coalition is, of course, the private business community, but the conservative party has the closest ties with business. Even so, there are no formal links between the conservatives or either of the other two parties and the national organizations of business, except for a strong residual association between the Center Party and the farm proprietors organization. The liberal party is the least well endowed with an extra-party organizational base. At the same time, the electoral constituencies of both middle parties inevitably include union members, and this makes it necessary for them to maintain a political profile that distinguishes them from the conservatives as well as from the Social Democrats. For example, they could not participate in a coalition government headed by a conservative prime minister, which has ruled out such a government even though the conservatives became the largest of the three parties in the 1979 election.

These were hardly the political conditions under which a sharp break with the past pattern of policy was possible. On the other hand, the cumulative effect of measures not taken as well as those taken would seem to add up to a pattern of policy pointing in a direction quite different from the one in which Social Democratic policy has been evolving. Thus, the trend toward greater reliance on collective savings to finance investment has evidently been reversed, although the bourgeois governments' policies have by no means been consistent in this respect.

Given the political conditions narrowing the first Faelldin government's options, on the one hand, and the increasing severity of the economic crisis, on the other, the main thrust of the government's effort to cope with the crisis was to improve Sweden's relative cost position without allowing open unemployment to increase. This was attempted by combining devaluation and austerity with large expenditures on measures to maintain employment. Whether this approach would have

worked in the absence of the new round of oil prices in 1979 and other troubles in its international environment is not clear, but after a brief improvement in 1978, the economic situation in Sweden seems to be at least as serious now as it was in 1977, if not worse.

Although Sweden's relative cost position may not be as bad, the balance-of-payments deficit is greater now than it was in 1977, while the central government budget deficit is far larger than ever before, betraying the persistence of problems that seem beyond the reach of policy. Several years have in fact gone by without much in the way of the investment in internationally competitive sectors needed to solve the underlying structural problem.

The present government is evidently unwilling to seek a solution to that problem along the lines on which Social Democratic policy had been evolving since the introduction of state institutions for channeling collective savings into industrial investment in the 1960's. At the same time, it is faced with substantial risks, economic as well as political, if it presses its preferred alternative of relying primarily on market forces to channel private savings into industry. Thus, it appears to be unable to pursue a consistent strategy for coping with the underlying economic problems that reached critical proportions since the mid-1970's.

The Initial Response to the Crisis

The main ingredient of the new government's effort to cope with the cost gap was devaluation, combined with measures to make the devaluation work. Whether it worked would depend on how much of its export price effects were offset, first, by price increases by firms trying to restore their margins and, second, by wage increases stemming from union efforts to preserve real wages in the face of the domestic inflationary effects. Given the conventional wisdom that Swedish firms are price takers on international markets plus the expectation that they would try to take advantage of the devaluation to recapture lost market shares, the first contingency was not considered a problem.

How the wage determination system operated was, accordingly, seen as the crucial factor on which the success of the government's strategy depended. The government rejected the idea of a "social contract" that some had urged on it, but which had in any case been ruled out by both sides of the labor market. Instead, the government counted on a combination of economic policies to diminish both the capacity and desire of the unions to press for compensatory increases, and on stiffened employer resistance to such increases.

The devaluation was carried out in three installments. A small initial devaluation in October 1976 was not combined with any major policy changes, and even the January 1977 budget was essentially an expansionary one. However, devaluations in April and August (which were accompanied by withdrawal from the snake) were parts of packages marking a major shift in economic policy. The brakes were put on domestic consumption and prices were temporarily frozen, after which they were subjected to advance notification requirements.

The scope for lower export prices created by devaluation combined with reduced domestic demand were expected to improve export performance, while the price restrictions limited the devaluation's inflationary effects and hence the pressure for compensatory wage

increases. In addition, the government sought to reduce labor cost pressures on export and domestic prices directly by eliminating the general payroll tax (not the AP contributions and other social charges). Since this would have been expansionary in the absence of offsetting budget measures for which there was little room, it was delayed and stretched out, taking place in two stages at the beginning and middle of 1978.

At the same time, the government had to blunt the employment effects of its restrictive policy lest it leave itself open to attack on the issue of unemployment. To that end, it resorted to the whole range of manpower policies built up by the Social Democrats, including those introduced most recently, adding to them and vastly expanding expenditures in an effort to keep open unemployment from increasing. In effect, this was a partial extension of the Social Democratic effort to bridge the recession, keeping the traffic going in the same direction in the employment lane of the bridge, as it were, while reversing it in the demand lane.

The Social Democrats had introduced new measures to maintain employment within firms by providing wage subsidies to produce for inventory and to "train" workers who would otherwise be laid off. This was on top of the whole array of, by then, traditional techniques of manpower policy and IF releases. Moreover, the employment security legislation enacted a few years earlier increased "labor hoarding" by delaying lay-offs and dismissals and otherwise making them more difficult, while increasingly flexible and generous provisions for early retirement made it easier to leave the labor force. The three-party coalition continued and expanded all these programs, increasing the size of employment subsidies and adding large loans and grants to companies in serious trouble. It even brought up a number of them, especially in steel and shipbuilding, introducing a degree of "ashcan" or "lemon" socialism without precedent in the decades of Social Democratic rule.

In these ways, the level of open unemployment was kept remarkably low, rising from a low of 1.6 percent in 1975, to 1.7 percent in 1977, and a peak of 2.2 percent in 1978, before slipping back to 2.1 percent in 1979. However, depending on how it is calculated, the addition of "hidden" unemployment in the form of workers in manpower programs, those whose wages were subsidized and those who dropped out of the labor market, could bring total "real" unemployment in 1977 to between 7 and 10 percent, or even higher if one counts the workers who would have been unemployed if not for the steel and shipbuilding rescue operations. In the latter industry alone, 10 billion Skr was spent over the years 1976 to 1980 (the government's own estimate was higher).

The total cost of the effort to hold down open unemployment is difficult to ascertain. Spending on all manpower programs, including production for inventories, rose to 2.4 percent of GNP in 1977, compared with the previous peak of 1.9 percent in 1972 and an average of around 1 percent in the 1960's. Central government transfers to firms, part of which are included in manpower policy totals, but excluding a variety of cheap loans, credit guarantees, and partial or complete purchase of firms, doubled as a percentage of GNP from 1.2 to 2.4 from 1975 to

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1978. A somewhat more inclusive estimate of subsidies to industry puts them as roughly equal to the whole amount of capital's share of value added in industry in 1977, so that "gross profits before subsidies," so to speak, were nonexistent in that year.

Whatever the amounts, the subsidies contributed to a continued real growth of central government expenditures at an average annual rate of 5 percent in the years 1976 to 1979. The budgetary consequences were dramatic when combined with a real decline in central government revenue averaging 3.5 percent per year over the same period. Budget deficits reached 9.6 and 10.4 percent of GNP in 1979 and 1980, respectively. Low growth of the tax base, resulting from low economic growth in those years, naturally accounts for a large part of this. Average annual GNP growth went down from 3.2 percent to 1.6 percent between the periods 1965 to 1974 and 1975 to 1979, which is to say that the deficits reflected the combined effects of the employment maintenance and demand restriction components of the government's strategy.

However, the decline in revenue also reflected reductions in tax rates. This includes the elimination of the general payroll tax already mentioned and income tax reductions both in the rate structure and by the introduction of indexation. No estimates of how much the tax reductions contributed to the drop in the rate of growth of revenue are at hand. But regardless of how the growing budget deficits are accounted for, they pose one of the two problems with which credit policy has had to deal, as we shall see in the next part.

Whatever the other consequences of the government's strategy for dealing with the cost crisis, it seemed to accomplish its intended effects to a considerable degree. The unions' militancy and bargaining power may not have been dampened as much as they might have been if there had been a marked rise in open unemployment. Nevertheless, the redistribution of income from labor to capital that an effective devaluation implied was accommodated in the next two central wage agreements, one for 1977 and another effectively covering 1978 and 1979. While the complex interaction among the government and negotiating organizations is essential to understand why this happened, we can only record the outcome.

From 1977 through 1979, industrial workers' hourly earnings rose by close to 23 percent, of which about 13 percent was contractual increases and a little over 10 percent was drift. Since the cumulative rise in the consumer price index was nearly 29 percent, industrial workers took a cut in real, pretax earnings of about 6 percent. This offset about half of the jump in their real wages during the preceding two years. The average annual growth rate of real wages over the whole 5-year period was thereby reduced to a little over 1 percent. By keeping wages increases significantly lower than they would have had to be to compensate for the devaluation's domestic price effects, the wage determination system evidently permitted much of those effects to be absorbed by a cut in real wages, preventing a price-wage spiral that could easily have dissipated the devaluation's intended external price effects.

Thus, with the help of what the Budget Minister called "the responsible agreement reached in the private labor market in 1978,"

the government had apparently managed to bring off one of the few effective devaluations among the many that have been attempted. The extent to which the government's strategy was successful, and at what price, have been the subject of considerable controversy, however. With no further increase in Swedish industry's relative hourly wage costs and even a slight reduction in 1979, the extent to which the overall cost gap was closed depended on how much additional improvement the devaluation and productivity growth could bring. On one estimate of the net effect of these factors, Sweden's relative cost level was still 10 percent higher in 1979 than in 1973, while on another, the cost gap was eliminated.

Whatever the improvement in costs, some of it was used to reduce export prices and the rest to restore margins. Between half and almost all of the rise in Sweden's relative export prices from 1973 to 1976 is estimated to have been eliminated. Not much of the lost market shares have been restored, however; the estimates range from virtually none to a little over a quarter. The rise in exports that did occur led to some recovery of industrial production. Manufacturing profits also turned up in 1978, but they leveled off in 1979 without even recovering to the pre-crisis low of October 1972. None of this was enough to keep the decline of industrial investment from accelerating to 22 percent in 1978, while a rise of 4 percent in 1979 is ascribed entirely to public sector firms. Private sector industrial investment was projected to rise once more only in 1980. Full year data for that year were not available at the time of writing.

What the preceding discussion suggests is that the government made some headway in coping with the cost dimension of the crisis in the short run, but that the extent to which it has been able to cope with the structural dimension is in doubt, both with respect to the process of structural change itself and those aspects of the cost problem whose solution over the longer run is a prerequisite for mastering the structural problem.

With respect to the first, it has been argued that the government relied on excessively restrictive macroeconomic policy to make devaluation work, resulting in extremely low capacity utilization, deepening the collapse of investment, and thereby retarding the adaptation of Sweden's industrial structure to the irreversible changes that have been taking place in the basic pattern of comparative advantage. With respect to the second, which particularly concerns us, the pattern of policy relied on to cope with the cost crisis left unsolved the problem of preventing a new cost crisis from developing.

While the wage determination system evidently permitted enough redistribution of income from labor to capital to make devaluation work under conditions of very low capacity utilization and profits, the question remained whether it would permit the further redistribution likely to be needed for investment to take place on the required scale.

This question was repeatedly raised in discussions of Sweden's economic prospects during 1979. It was frequently answered with the apprehension that wage pressures would accelerate as capacity utilization and profits approached levels at which sufficient investment was likely, thus threatening to open up a new cost gap, slow exports,

squeeze profits, and cut short the recovery of investment now needed more than ever. To the extent that such fears were predicated on a recurrence of the mid-1970's sequence of profit and wage explosions, they were undoubtedly exaggerated, for there seems to be little prospect of any early repetition of the pattern of inflationary boom followed by deep recession that gave rise to the crisis in the first place. On the other hand, if our hypothesis concerning the alternation between low and high central wage agreements that seems to be built into the wage determination system is correct, and the tendency of this alternation is to squeeze profits over the long run, there was good reason for apprehension.

The pattern up to the 1975–1976 agreement was admittedly interrupted over the next two agreements, in the sense that they were each successively lower. Perhaps this should rather be interpreted as a stretchout of the pattern following the extremely high 1975–76 agreement. Although the 1977 agreement was much lower than the preceding one, the relationship of contractual increases to drift was more characteristic of a high agreement. The wage explosion agreement may have been so high that it could not be fully offset in the next one, so that only the 1978–79 agreement can be said to be a low one. In any case, both the wage explosion and "responsible" agreements of 1978–79 were to be expected in view of the pattern of fluctuations observable for some time.

Conceivably, the stretchout might have been continued by another low agreement for 1980 and perhaps beyond. This is probably what it would have taken for the recovery of industrial investment barely beginning in that year to continue, if not to the level that is really required, at least enough to make a dent in the structural problem. Moreover, such investment might be sufficient to replace the vicious cycle of declining utilization leading to declining capacity by a virtuous cycle in the opposite direction, easing the cost problem by increasing both productivity and pushing back the inflationary frontier of full capacity utilization. What would happen in the 1980 round of wage negotiations would therefore be crucial, presenting the first real test of whether the government was capable of keeping the cost gap from reopening.

In order for the government to meet that test, it would not necessarily have to pick up where the Social Democrats left off and introduce wage earners' funds. But it would have to create conditions under which unions would be willing and able to keep nominal wages from pressing costs to the point where they squeeze still-low profits up against international prices once again. That would require an income tax reduction package with a distributive profile acceptable to the unions and very effective restraint on prices.

It would probably also require steps to keep the recovery of profits, which would inevitably be uneven, from generating significantly more wage drift. Finally, it would require some way by which unions could be assured that the increased profits would in fact be plowed back into investment, and some sterilization of the wealth effects, on some permanent basis rather than through any device akin to the IF system. This was a tall order, but it was one that could be filled without the encroachment on property institutions that wage earners'

funds would entail—a limit no bourgeois government could be expected to breach.

Even if the government had created the conditions for a stretchout of the low agreement period this way, its extension beyond the term (however long) of an agreement negotiated in 1980 could hardly be expected. On the contrary, it would seem all the more likely that a new high agreement would follow as long as the factors shaping the operation of the wage determination system in the past continued to do so. This is what we should expect in the absence of an "institutional intervention in the economic system" such as some collectivization of the claims to asset growth generated by the reinvestment of profits. In other words, the fundamental issue would not go away indefinitely, but it could be grappled with under considerably more favorable economic circumstances, under which it might even be possible to arrive at a new "historical compromise." This, however, is not how it turned out.

The Lost Opportunity?

As Americans know from one of those rare occasions when events in Sweden break into our news media, the country's economy was brought to a standstill for 10 days in May, 1980, by a massive strike and lockout involving a quarter of the labor force. This was the first work stoppage on anything like the scale since 1909. The question this major event raises for us is whether the dispute itself and the settlement by which it was ended testifies to the government's inability to create the conditions under which the wage determination system could operate to permit a continued recovery. We can only ask the question and point to some considerations that would enter into the answer because we do not have an adequate basis for more than that.

The effect of the agreement reached at the end of the dispute on Sweden's relative cost position cannot be stated on the basis of the information at hand. An estimate of the resulting increase in hourly earnings is available, as is an estimate of productivity growth, indicating an increase in manufacturing unit labor costs of 8.6 percent from 1979 to 1980, compared with an increase of 4.0 and 1.5 percent between 1977 and 1978 and from 1978 to 1979, respectively. An increase of this magnitude looks as if it could reopen the cost gap, but this obviously cannot be determined without the relevant comparative data. However, it is safe to say that an increase closer to that in the previous 2 years would have been more favorable from a cost standpoint.

The question then is whether the conditions for such a lower increase could have been created if the government had acted differently. There are two distinct sets of issues here. The first concerns the specific sequence of actions, or inactions, by the government immediately prior to and during the negotiating process. Most observers consulted, on both the union and employer sides, are agreed that the government made mistakes that helped put the unions and employers (including the government itself) on a collision course, and then precipitated a settlement that was higher than was necessary to bring the dispute to an end.

Except for the level of the settlement in the public sector (made in advance of the private sector and thus contrary to the notion that

the latter, in which the tradables production takes place, should be the wage leader), most of the mistakes referred to do not concern the economic substance of what was done. Instead, they have to do with such things as a failure to indicate clearly in advance the government's economic policy intentions, on the basis of which the negotiating parties could decide on their own positions, changes in the government's position, mixed signals, and the like, all of which might reflect the tactical difficulties of policy formation in a coalition government.

The other set of issues concerns the whole pattern of policy pursued over an extended period prior to the new wage round. One of these has to do with how the government managed the upswing in 1979 and whether its policy presents yet another instance of failure to keep the upswing under control once it was underway. In part, the question is raised by the rapid acceleration of inflation. The rate rose from 7.8 percent in 1978 to 9.7 percent in 1979, taking the year as a whole, but went up to the highest monthly rate since the Korean war between December 1979 and January 1980, just when the negotiations were beginning. Although the new round of large oil price increases in 1979 received a lot of attention, it accounted for less than a fifth of the increase in the consumer price index. At the same time, GDP grew by 3.4 percent in 1979, the fastest since 1974, and unemployment declined from 2.4 percent in the first quarter to 1.8 percent in the last. The stimulative effect of fiscal policy during the year is estimated at 3.8 percent of GDP, higher than in any of the preceding 5 years. The other side of this fiscal stimulus was a central government budget deficit that rose from 8.5 percent of GNP in 1978 to 10.5 percent in 1979, precisely in a phase of the business cycle when a decline in the deficit might have been expected. Finally, there was a sharp deterioration in the balance of payments from virtual equilibrium in 1978 to a deficit of 2.5 percent of GDP in 1979.

This combination of indicators makes it appear that the government's fiscal policy was excessively expansionary, especially toward the latter part of the year. If so, a failure to turn fiscal policy toward restriction soon enough was once more a destabilizing factor, as it had been in so many previous upswings. This impression is reinforced by the fact that credit policy had to be made increasingly tight during the course of the year to counteract the effects of the budget and balance-of-payment deficits on domestic liquidity and foreign exchange reserves, as we shall see.

This looks like the typical pattern of resort to monetary policy when fiscal policy fails to bear its burden. In this instance of mistimed fiscal policy changes (which can perhaps be said of the restrictive turn in fiscal policy in 1980 as well), the effect on contractual wage pressures seems to have acted primarily through inflation rather than through wage drift. While wage drift remained below contractual increases in 1979, price increases went over the threshold for reopening negotiations that was included in the 1978–79 agreement. In addition, as just pointed out, prices continued to rise rapidly as the new wage round began.

It is precisely because that new wage round was probably more sensitive to prices than wage drift that it might still have been possi-

ble to create the conditions for a lower settlement without having to grapple with the thorny problem of collective profit sharing. But this makes the distributive implications of the policies pursued by the government all the more pertinent. The questions that arise concern the government's policies on taxation generally as well as on private versus collective capital formation. The reductions in marginal tax rates and indexation of income taxes, at least as those measures were constructed, have been strongly attacked by the unions as redistributing income in favor of higher income recipients.

In particular, they claim (and various economists confirm) that the indexation system builds in past inflation and makes high nominal wage increases necessary just to prevent lower paid workers from falling farther behind relative to higher income recipients. If this is so, it hardly facilitates the kind of wage agreements that make it easier to keep the cost gap from reopening.

We turn, finally, to the questions that arise in connection with the government's approach to the problem of financing investment, with which we are particularly concerned. As we saw earlier, there are various indications of a reprivatization of savings. Data covering more recent years show a marked strengthening of the trend. In 1970, public-sector net financial savings as a share of GNP was 4.1 percent while the private-sector share was −4.9 percent, the difference corresponding to a small balance-of-payments deficit of −0.8 percent. In 1979, the public-sector share was −2.7 and the private-sector share was 0.6, corresponding to the much larger balance-of-payments deficit of −2.5. Thus, the surplus and deficit positions of the sectors are reversed, so that the private sector moves from a substantial deficit to a small surplus position, while the public sector moves from a substantial surplus to a smaller but still important deficit, corresponding to the larger balance-of-payments deficit.

In very crude terms, this looks like a drastic reversal of the trend under the Social Democrats toward increasing public savings to offset the decline in private savings. Private savings have become a more abundant source of capital for investment than public savings, so that the returns on the investment accrue to those whose private savings finance the investment. Insofar as the distribution of income, savings, and wealth is unequal, in ascending order, whereas the distribution of individual claims on public savings—e.g., pension rights—is much less unequal, investment seems to depend more on sources of finance into which inequality is built than it did before.

While it does seem that the capacity of the public sector to supply capital for investment has deteriorated relative to the private sector, one is obviously not entitled to make inferences about the distributive implications of such shifts in large aggregates, as those cited above, without examining the operation of the savings-investment process in detail. In fact, when one looks at the policies pursued in this area by the bourgeois governments, the pattern becomes more ambiguous. Thus, the Fourth Fund's capacity to supply equity capital was diminished by one measure but increased by others.

Legislation enacted in 1979 requires the Fourth Fund to turn over 80 percent of the earnings from its shareholdings to the first three AP funds instead of using it to increase its holdings. On the other hand, the upper limit on the amount it could draw from the AP fund for the

purchase of shares was raised from 1 to 1.25 billion Skr in 1978 and raised again to 1.85 billion in 1980. This way of channeling collective savings into equity capital had evidently become acceptable to the bourgeois government. It did point out that the presence of the Fourth Fund supported the stock market, making it easier to market new issues to other potential purchasers. Moreover, it was declared that the new limit brought the Fourth Fund to the maximum size it should have. If further use of this method is called for, the establishment of a fifth fund should be contemplated.

There is a similar ambiguity with respect to the original AP fund. As we noted, its effectiveness as a mechanism for collective savings is bound to decline as the level of pension payments rises. How much of a decline there is depends on what is done about payments into it. Shifting the Fourth Fund's earnings into it obviously helps, though it means strengthening the loan capital capacity of the AP system at the expense of its equity capital capacity. It will be recalled that there was also a small increase in the payroll tax earmarked to the AP fund. Neither of these measures can arrest the rapid decline in the importance of the AP fund's position on the credit market, as a whole, that is already evident, however.

To restore the share of collective savings in total savings, or even arrest its decline, would require large changes in fiscal policy that would reduce the consolidated public-sector financial deficit as well as increase the flow of funds into specific institutions such as the AP funds or alternative mechanisms that might be established. There is no indication that the present government is in the process of restoring the capacity of public savings to supply capital to investment, even if its declared aim is to cut the central budget deficit. Conceivably, that could be accomplished without altering the relative importance of public and private savings.

When it comes to decisions in favor of providing equity capital out of private savings, there is much less ambiguity. A bill just put before the parliament proposes new arrangements, including tax relief, to encourage workers to purchase shares in the companies they work for on an individual basis. The amount of equity capital raised this way might not be very great, but the arrangements could well draw off some support for collective share ownership proposals like those of LO, which might be just the point. However, a broader approach to encouraging the supply of equity capital out of private savings is embodied in the report of a government commission recommending the reduction or elimination of double taxation of corporate income. Such a measure would most clearly run counter to the Social Democratic labor movement approach to the finance of investment. Thus, it was sharply criticized as benefiting a very small group in which wealth is already highly concentrated and which cannot be expected to be much enlarged. A reservation by the LO representative on the commission put the point as follows:

> In a situation in which demands are made for restraint in wage income, it is absurd to contemplate further tax reliefs for unearned income, especially since large tax subsidies for share savings have already been implemented . . . . In view of the general demands for restraint and for economizing on public expend-

itures, implementation of the commission's proposal would be a direct provocation.[3]

It is worth noting that a leading liberal party member of parliament declared his opposition to such a measure on similar distributive grounds as well, reflecting the divisions within the coalition (and within the liberal party) over the issue of how investment should be financed.

What the preceding discussion suggests is that, in important respects, the pattern of policy pursued by the bourgeois governments since 1976 is ill-designed to create the conditions under which the wage determination system can operate consistently with the requirements of external equilibrium, given the power and policies of Sweden's unions. The possible "mistakes" in the course of wage bargaining rounds or errors in the timing of stabilization policy may be less important in this connection than the general thrust, ambiguous and halting as it may be, toward the reprivatization of investment. If so, there may be no escape from deepening stagflation, and an intensification of the symptoms with which credit policy has to try to cope. We turn in the final part to a description of how that is done.

Credit Policy as Crisis Management

Contemporary Swedish credit policy, as we noted earlier, has been concentrated primarily on coping with the interrelated problems posed by large deficits in the central government budget and current balance of payments. In order to deal with these problems, the Riksbank, Sweden's central bank, relies on a battery of instruments through which the credit market has long been subjected to a high degree of control. Among the most important of these are controls over the volume of lending, the composition of bank and insurance institutions' portfolios, the interest rate structure, and foreign transactions. This apparatus of regulation grew up as part of the broad pattern of policy pursued by the Social Democrats during their years in office.

Throughout that period, the private banking community in particular, along with many economists, had been very critical of the system of credit market regulation. A return to a more market-oriented credit policy was anticipated when the bourgeois parties finally came into office. Much to the dismay of the critics, and in spite of a strong inclination to move in this direction within the bourgeois coalition, this has not happened. On the contrary, the legislative authority for credit market regulation was renewed in 1977 and the Riksband has made vigorous use of the array of instruments which consequently remained at its disposal.

In doing so, the Riksbank has been acting in accordance with the new governments' policies, which is what it is expected and required to do. The continued reliance on the apparatus of regulation reflects the view generally shared by the present economic policymakers that it is necessary in order to manage the current crisis pending solutions to the underlying problems. In the absence of such solutions, it is be-

[3] Stimulans av aktiesparandet Ds B 1980 : 11, pp. 199–200, 201.

lieved that dismantling the controls in favor of a more market-oriented policy, such as one that relies primarily on interest rates to equilibrate the supply and demand for credit, not to speak of the more radical monetarist prescriptions, would have perverse effects, making the problems even worse.

To explain how the apparatus of credit market regulation is currently used to perform the crisis management tasks that fall to the Riksbank, we shall present a case study of credit policy in 1979, the last full year for which data are available at the time of writing. The measures taken during the year will be set in a longer time perspective when this can help clarify matters, and subsequent developments will be noted as far as possible. Before proceeding with the case study, it will be useful to have a brief description of the Riksbank and its relations to the government, and of the principal institutions to which its actions are directed.

The Riksbank and the Government

Credit policy in Sweden is clearly understood to be part of the government's economic policy, even though it is the Riksbank that implements it. This is assured by both the formal rules and political realities that define the Riksbank's role. The Bank is referred to in the constitution as an agency of the Riksdag, Sweden's parliament (unicameral since 1971). The Riksdag's authority over the bank is exercised through a seven-member Board of Commissioners of the Riksbank, six of which are selected by the Riksdag and one by the government. The commissioner selected by the government is the president of the board.

The entire board is selected for a term of 3 years, coinciding with the term of the Riksdag. All members are subject to removal during their term of office, however, by the Riksdag in the case of six it selects and by the government in the case of the president. The government removed a president once in the 1950's. The board, in turn, selects the governor of the Riksbank from among its members. In addition, it selects a deputy governor either from among its members or outside. The members of the board are ordinarily but not exclusively, members of the Riksdag. Thus, six of the present board members, including the president, are members of the Riksdag, while the seventh, who is governor of the bank, is not. It was actually in order for him to become the governor that he was selected for membership on the board.

Decisions on credit policy measures are formally made by the board, which is, in turn, accountable to the Riksdag. In principle, the measures the Riksbank can take have been specified in statutes enacted by parliament at various times, codified in a law on credit market instruments passed in 1974. Limited in its duration for 3 years, this is the statute referred to earlier that was renewed for another three years through 1981. The statute authorizes the government, upon the request of the Riksbank's board, to give the Riksbank the power to issue binding directives to the various credit market institutions, for limited periods or until further notice, concerning specified aspects of their operations.

In fact, much of the credit policy measures taken by the Riksbank do not have the force of law; they are just "recommendations." However, the existence of provisions in the law that could make those measures legally binding has ordinarily enabled the Riksbank to secure compliance—and to impose financial penalties for failure to comply—without the statutory provisions being put into force. Indeed, as the commercial banks' association has complained, the Riksbank is able to take the measures on a continuous basis without being subject to the time limits that would apply to some of the measures if they were legally binding.

Since the Riksbank is formally an agency of the Riksdag, its policies depend on the distribution of seats among the five, highly disciplined parties in the Riksdag. Thus, it is the party or parties that command a majority that determines the composition of both the Riksbank's Board of Commissioners and of the government. The partisan composition of the Riksbank's board corresponds approximately to that of the Riksdag. Accordingly, there is now one member of the parliament on the board for each of the three bourgeois parties that form the coalition government with a one vote majority, and three board members who are Social Democratic members of parliament. The seventh board member, the governor, is not a member of parliament and is given no party designation.

However, he obviously provides the bourgeois parties with a board majority, having been appointed Under Secretary of State by the conservative Minister of Economic Affairs in 1976, and having held that post until he was chosen to head the Riksbank by the bourgeois coalition that returned to office in 1979. The extent to which board decisions are brought to a vote in which it divides along partisan lines has not been ascertained, but it does happen that the minority goes on record as opposed to a position taken by the majority. In any case, the government is effectively assured of the majority on the Riksbank board as long as its majority in the Riksdag is also maintained. In short, power over credit policy is ultimately in the hands of the government.

This is not to say that the Riksbank simply carries out the government's instructions. On the contrary, its board and governor are expected to exercise their judgment as to what the course of policy should be. The governor, in particular, depending on his personality and reputation, can be a powerful member of the inner circle that shapes economic policy, exerting a substantial influence in his own right. To some extent at least, a governor in that position may pursue policies somewhat at variance with the government's preferences, with the government being reluctant to engage in public dispute with the governor. Still, it is understood that the Riksbank is to take no significant measure without consulting the government in advance, even if it is not the kind for which the government's authority is legally required, and that the measure is not to be taken if the government is definitely opposed to it.

In fact, there are weekly consultations between the Riksbank and the ministers responsible for economic policy through which the actions of the bank and government are continuously coordinated.

The Banks and the Insurance Companies

Aside from the Riksbank itself, the banking sector falls into three main categories, in descending order of importance: the commercial banks, savings banks, and association banks. There are 14 commercial banks, all joint stock companies, divided into three groups. The first consists of the four major banks that operate nationally. Post-Kredit Banken, owned by the state, is the largest, followed closely by the two largest private commercial banks, Skandinaviska Enskilda Banken and Svenska Handelsbanen. Together, these three account for about three quarters of all commercial bank assets. Götabanken, roughly a quarter as large as the others, is the fourth in this group.

Eight regional banks comprise the second group, and two special banks comprise the third. One of the latter is the Sparbankernas Bank, which functions as a clearing bank for the savings banks as well as engaging in commercial banking operations, and which has assets slightly under those of Götabanken. The other is the Foreningsbankernas Bank, which performs the same function for the association banks along with commercial bank business and has assets roughly on the scale of the regional banks or less than a quarter of Götabanken's.

Altogether, the commercial banks accounted for almost 18 percent of total lending on the domestic credit market in 1979. The nearly 1,400 savings banks are semipublic nonprofit foundations, supervised by boards of trustees of which half the members are appointed by local governments and half are co-opted from depositors. Mostly small, the largest savings bank has a little less than half the assets of Götabanken. The association banks are former agricultural credit associations which are now open to the public generally. The savings and association banks accounted for around 10 and 2 percent, respectively, of lending in 1979.

The nonbanking sector may be divided into three categories as well: the public insurance institutions, the private insurance institutions, and the "general public"—essentially nonfinancial companies and households. Only the first two categories are credit market institutions over which the Riksbank has direct influence. Of the two, the first consists of three formally separate funds in the national pension, or AP, fund system referred to earlier. The three funds have a common administration and can be treated as a unit for our purposes.

As noted earlier, there is a Fourth Fund, with a separate administration, which operates solely in the share market while the other three only provide loans. Over a transition period beginning in 1960, during which the system gradually went into effect, a large surplus available for investment was built up on the basis of payroll taxes that rose more rapidly than the payment of earning-related pensions the system was designed to provide. At the peak of its growth in the early 1970's, the AP fund accounted for over one-third of all lending on the domestic credit market.

By 1979, however, its share had already declined to 16 percent. The private insurance institutions include the ordinary private insurance companies of various kinds, the cooperative movement's insurance com-

pany, and several institutions that run private schemes providing supplementary pensions and other fringe benefits. One of the latter, the Swedish Staff Pensions Society, or SPP, is the largest in this category of credit institutions with assets around one-fifth of those of the AP fund. The private insurance institutions as a group accounted for a little under 14 percent of all lending on the domestic credit market in 1979, somewhat under the AP fund's share.

The Tasks of Credit Policy

As indicated above, the principal symptoms of Sweden's contemporary economic crisis to which the Riksbak's efforts are directed are the deficits in the central government budget and current balance of payments. While these deficits were not as high in 1979 as they are estimated to be in 1980, they were substantial. In 1979, the central government budget deficit was approximately 44 billion Skr, corresponding to 9.6 percent of GNP, and the balance-of-payments deficit was about 11 billion, or 2.5 percent of GNP.

The main tasks with which the Riksbank was consequently confronted were to limit the liquidity growth generated in the course of financing the budget deficit and to limit the decline in foreign reserves associated with the payments deficit. Domestic liquidity is reduced by the drain on reserves, but that had to be limited in order to maintain the exchange rate of the crown relative to the basket of trade-weighted currencies against which it was fixed after the 1977 devaluation. This devaluation had been regarded as a necessary and in any case unavoidable response to the cost gap.

However, it is accepted that the possibilities for a successful further devaluation, whose export price effects are not rapidly wiped out by its domestic inflationary effects, are generally minimal. Maintaining the exchange rate at the new parity or, more precisely, avoiding further devaluations, has therefore become a basic target of credit policy. From this perspective, the drain on reserves is itself a consequence of liquidity growth rather than a remedy for it, so liquidity growth had to be limited directly while offsetting the resulting drain on reserves as much as required by exchange rate policy.

There were essentially two ways in which the Riksbank sought to limit the liquidity growth stemming from the need to finance the budget deficit. First, it tried to limit the extent to which the banks' lending capacity was increased as a result of the deficit by getting as much of it as possible financed outside the banking system. Second, to the extent that this could not be done, it tried to limit the expansion of the banks' lending directly. As shown in Table V–5, out of the total budget deficit of 44 billion Skr, 35 billion was financed on the domestic credit market and 9 billion abroad. Of the 35 billion Skr financed on the domestic market, slightly over half was borrowed from the nonbanking sector and slightly under half from the banking sector. The instruments by which the Riksbank brought about this distribution are described in the next section.

TABLE V-5.—THE SWEDISH CREDIT MARKET, 1978 TO 1979

[Million kronor, net flow]

Lenders	Borrowers					
	Central government	Local governments	Housing	Business	Households	Total
1978 Sweden:						
Bank of Sweden	5,004	−1	−1	7	14	5,023
Commercial banks	14,428	438	4,052	3,235	4,929	27,082
Savings and cooperative banks	455	−33	2,640	1,991	3,818	8,871
Private insurance companies	3,244	174	3,460	4,330	----------	11,208
Public insurance companies	4,705	336	3,947	3,916	----------	12,904
The general public	3,317	247	539	1,039	----------	5,142
Central Government	----------	----------	3,984	2,952	1,470	8,316
Total	31,153	1,161	18,531	17,470	10,231	78,546
Abroad:						
Through banks	----------	----------	----------	2,418	----------	2,418
Other	2,014	576	----------	877	----------	3,467
Total	2,014	576	----------	3,295	----------	5,885
Total	33,167	1,737	18,531	20,765	10,231	84,431
1979 Sweden:						
Bank of Sweden	14,549	----------	----------	−7	179	14,721
Commercial banks	1,694	622	5,844	3,776	4,168	16,104
Savings and cooperative banks	1,036	−249	3,353	1,778	5,039	10,957
Private insurance companies	3,985	74	4,603	3,577	----------	12,239
Public insurance companies	5,080	1,014	3,525	4,668	----------	14,287
The general public	8,585	−100	342	1,486	----------	10,313
Central Government	----------	----------	4,200	5,940	1,600	11,740
Total	34,929	1,361	21,867	21,218	10,986	90,361
Abroad:						
Through banks	----------	----------	----------	6,922	----------	6,922
Other	9,042	120	----------	−4,798	----------	4,364
Total	9,042	120	----------	2,124	----------	11,286
Total	43,971	1,481	21,867	23,342	10,986	101,647

Source: Bank of Sweden.

Allocating the Government Debt

The principal means through which the Riksbank tried to affect the distribution of government debt between the banking and nonbanking sectors is a system of annual "agreements," as they are somewhat misleadingly referred to, between the authorities and credit market institutions. In these agreements, the latter undertakes to carry out "recommendations" issued to them by the former concerning the distribution and conditions of lending to the principal categories of borrowers to which priority is given, mainly the central government and housing.

There are ordinarily three such agreements each year. The first is between the so-called "delegation for housing finance" and all the banks. Represented in the delegation are the six central government institutions concerned with housing policy—the Budget, Economic Affairs, and Housing ministries, the agencies responsible for administering housing and labor market, or manpower, policies, and the Riksbank. Its task is to work out a plan for financing the volume, composition, and location of housing construction in the forthcoming year on which the government has previously decided in the light of eco-

nomic, budget, and credit market projections and the political considerations it regards as relevant. The government's decision is embodied in its budget and housing bill early in the next year, and the delegation's plan is presented to the banks in the form of a recommendation by the Riksbank at about the same time.

In the agreement reached in January 1979, the banks undertook to make available the loans needed to finance the new housing and related construction planned by the government. They also committed themselves to increase their holdings of housing bonds, issued by mortgage institutions, to provide long-term finance for completed housing, by a total of 6 billion crowns, distributed among the three categories of banks in specified proportions. This was followed by a separate agreement among the banks concerning the distribution of construction loans.

Once the banks' share of construction and long-term housing finance during the years ahead is established, the remainder is allocated to the nonbanking credit institutions. The significance of this for our present purpose would seem to be that the larger the banks' share of housing finance, the less need there is to get the insurance institutions to finance housing and the more scope there is for them to finance the budget deficit.

The level of insurance institution lending to these two priority categories of borrowers and the distribution between them is settled in two additional agreements. One is between the Riksbank and the AP fund, which refers to the fund's investment in government securities as well as housing bonds. The 1979 agreement, reached in mid-March, provided that the AP fund would place 5 billion Skr in the former and 4 billion in the latter. It also provided for reconsideration of these guidelines in the event of a substantial change in circumstances.

Finally, there is the agreement between the Riksbank and representatives of the insurance companies trade association and the cooperative insurance company. This agreement takes still another form, consisting of two components. One is a "placement quota" that specifies the percentage of new loans that are to be made to the priority borrowers. The other fixes the amount of loans to housing in absolute terms.

In the agreement reached in late March 1979, the placement quota, which varies for different kinds of companies, was raised by 5 percentage points over the 1978 levels, reaching 75 percent for life insurance subsidiaries of the major companies. The total for housing loans in 1979 was set at 3 billion, accounting for a little under half of the insurance companies' aggregate quota, with the rest of the quotas to be filled either by housing bonds or government securities. With respect to the "nonprioritied" remainder of their lending, the insurance companies were called upon to lay "the greatest weight on contributing to industry's financing." In addition, the private insurance institutions accepted the recommendation with the reservation that it be reexamined if there should be a marked change in circumstances. This reservation was subsequently invoked and, in June, the Riksbank relaxed the major life insurance companies placement quota by 2 percentage points to 73 percent.

The Riksbank's recommendations to the credit market institutions concerning the distribution of their lending are an example of the kind

of policy measure which is not legally binding but with which the institutions ordinarily comply in the knowledge that, if they do not, the Riksbank may be granted the power to compel them to comply. So while negotiations over the recommendations do take place and can be tough and protracted, as in the case of the private insurance companies' 1979 placement quotas, the recommendations are tantamount to instructions. There is a specific provision in the law on credit market instruments authorizing the government to give the Riksbank the right to impose "placement obligations" on banks and insurance companies if this is regarded as necessary to meet the priority sectors' borrowing requirements.

It proved possible to secure compliance with the recommendations in this area without having to put this provision into effect until 1980. In that year, however, the Riksbank requested that it be put into effect after the private insurance companies refused, for the first time, to accept its recommendations. The government partially complied, allowing the Riksbank to prescribe placement obligations for the insurance companies but not for the banks, as the Riksbank had requested.

The resort to legally binding regulation in 1980 reflected the increasing strains resulting from the problem of controlling the liquidity growth generated by an even larger budget deficit. Thus, while the AP fund did not refuse to accept the Riksbank's 1980 placement recommendation, the further increase in the proportion of its new lending it was called upon to make to the government elicited from it a strong reservation. In it, the first three AP fund boards promised that they would "do their best to follow the Riksbank's recommendation, but that in the event that there was a shortage of capital for productive investment, the boards consider it their obligation to finance such productive investment in order to assure future pension payments."

The AP fund's attitude undoubtedly contributed to the Riksbank's invocation of the law. At the same time, the credit institutions' objections, as well as the Riksbank's call for legally binding authority, puts pressure on the government to take fiscal policy initiatives to diminish or reverse the growth in the budget deficit that makes it increasingly difficult to limit its inflationary consequences with the credit policy instruments that are available. The government can refuse to strengthen the Riksbank's power to deal with the problem, as the government did in giving the Riksbank narrower power over the composition of lending than it sought, but then it is the government that clearly takes on the responsibility for the consequences.

The Riksbank's influence over the credit institutions' investment policy is reinforced by its control over bond issues. This is another area in which the government has standby authority to make regulation legally binding but has not needed to—the pertinent provision in the law on credit policy instruments has not been put into effect.

In practice, no bonds are issued without prior approval of the Riksbank, which passes on their timing, interest rate, maturity, and amortization terms, as well as whether they should be issued at all. This means that the borrowing efforts of the priority sectors can be supported by holding back or completely shutting out everybody else from the domestic bond market, leaving those wishing to purchase bonds no alternatives except those issued by the priority sectors. Controls on foreign

transactions enable the Riksbank to determine whether to make available the alternatives of borrowing or lending on foreign credit markets, at least as far as long-term capital transactions of the kind involved here are concerned.

Control over industrial bond issues, though not others, has recently be relaxed. The Riksbank declared in April 1980 that interest rates on industrial bonds could vary in accordance with the state of the market, risk, maturity, and other conditions. In addition to retaining control over the volume and distribution of industrial bond issues, however, the Riksbank indicated that it would continue to keep tabs on the industrial bond rates while retaining comprehensive control over all other interest rates. Such control is relied on heavily as an instrument for influencing short-term as well as long-term international capital flows.

The placement ratios, together with control of bond issues, are the most clearly selective elements in Swedish credit policy. It is stressed at the Riksbank that the selectivity is confined to allocation between the priority sectors and all the rest, with no selectivity exercised within the nonprioritized sectors. The admonition to the insurance companies to give preference to industrial bonds may be viewed as an element of selectivity within the nonprioritized sectors, but its significance is minimal—at least for the time being when industrial demand for credit is relatively low. When there was a queue for industrial and other bonds in the past, it was left up to the commercial banks to decide which issues to offer each time it was their turn to do so. Thus, the selective element served primarily as an instrument of housing policy in the past. Even if it still serves the purpose of housing policy today, it now seems to be used primarily as a means for getting as much of the central budget deficit financed outside the banking system as possible.

What, then, did the Riksbank accomplish in this way? In 1979, the nonbank part of the credit market that could be reached through the placement recommendations, the insurance institutions in other words, accounted for 9.1 billion Skr out of the 44 billion budget deficit. In 1978, they accounted for 7.9 billion Skr out of a 33 billion deficit. Thus, they increased their purchase of government securities by about 1.2 billion, or around 15 percent. On the other hand, the increase in the deficit was much larger, so that the portion of it they financed in 1979 was smaller than in 1978, 21 percent compared with 24 percent. Nevertheless, relative to the growth in their lending capacity, the Riksbank may have succeeded in imposing a greater part of the burden on them, depending on how this is calculated.

According to the Riksbank credit market data to which we have been referring so far, the share of government securities in the private insurance companies' new lending was significantly greater in 1979 than 1978, 33 percent as opposed to 29 percent. On the other hand, the same data show that the share of government securities in the AP fund's total lending was slightly lower in 1979 than 1978, a little under 6 percent as opposed to a little over 6 percent.

However, according to the AP fund's own figures—which the Riksbank itself used more recently in formulating its 1980 recommendations to the AP fund—the share of government securities in its total new lending was also significantly greater in 1979 than 1978, 34

percent as opposed to 31 percent. This increase, by the same number of percentage points as in the case of the private insurance institutions, brought the annual growth in the AP fund's lending to the government to the highest level in the fund's entire history.

The Riksbank's placement requirements for 1980, which were made legally binding, increased the pressure on the insurance institutions. The increase in its holdings of government securities that the AP fund was required to make in 1980 was an even larger proportion of its new lending than in 1979, bringing the proportion to 41 percent. At the same time, the 75 percent ratio, which the Riksbank set at the beginning of 1979 and backed off of in midyear and which the insurance companies rejected for 1980, was reimposed on them.

On the face of it, therefore, it appears that the Riksbank's regulation of the insurance institutions' investment policy did serve as a means for getting a somewhat larger part of the budget deficit financed in the domestic credit market outside the banking system than might otherwise have occurred. However, we cannot really tell if this is so without a much more systematic analysis that incorporates the alternative investment opportunities open to the insurance institutions, an analysis we unfortunately cannot provide.

The rest of the nonbank part of the domestic credit market, the general public, is beyond the reach of any regulations through which the Riksbank can compel it to absorb any part of the government debt. Indeed, this sector exists as part of the so-called organized credit market with which we have been concerned only as an accounting device. In reality, it seems to be open-ended: it engages in an unknown amount of borrowing and lending in the unregulated "grey market" that flourishes alongside the organized credit market and, evidently, in response to the regulations imposed on the latter. The existence of the grey market obviously poses problems for the kind of credit policy pursued in Sweden, and we wil return to them. There were, nevertheless, some things it proved possible to do to increase the extent to which the budget deficit was financed by the general public.

Most of this was accomplished through the sale of premium and savings bonds to individuals. The former are small denomination lottery bonds offering a low level of tax-free interest plus the chance of large winnings taxed at well below the average income tax rate. The savings bonds are ordinary bonds offering somewhat higher tax-free interest. Various efforts to make investment in these two kinds of government securities more attractive were evidently successful, for the total for both nearly doubled from 1978 to 1979. The 6 billion Skr figure for 1979 accounted for 13.6 percent of the budget deficit. This aspect of credit policy was largely a matter for the government rather than the Riksbank, although the Riksbank was consulted in the process of formulating the policy.

The remainder of the deficit that was financed on the nonbank part of the domestic market, 2.6 billion Skr, was almost entirely accounted for by 2.4 billion that the government borrowed, or really borrowed back, from state-owned companies. This was simply money the state had provided the companies, in the form of grants or loans, but which was not yet being put to use. The measure was thus a temporary, makeshift one taken by the government rather than a permanent instrument of credit policy.

This makeshift step brought the portion of the budget deficit financed by the general public in 1979 to 8.6 billion, or 19.5 percent of the total, compared with 3.3 billion, or 9.2 percent of the total, in 1978. Combined with the insurance institutions' contribution, this brings the portion of the deficit financed on the nonbank part of the domestic market in 1979 to 17.7 billion, or 40.2 percent, compared with 11.2 billion, or 33.7 percent, in 1978.

Limiting the Expansion of Bank Lending

Accordingly, 17.3 billion of the 35 billion Skr financed on the domestic market was left to be financed within the banking system. The bulk of this, 14.5 billion, took the form of Riksbank purchases of government securities, so that other bank purchases of such securities accounted for only 2.7 billion Skr. Insofar as the Riksbank's lending to the government worked its way into deposits in the other banks, however, it threatened to add substantially to their lending capacity. Two things were done to limit the impact of the budget deficit via this route. One was an effort to divert some of the flow of cash financed by the government's borrowing in the Riksbank from deposits in the other banks and back into the Riksbank. The other was an effort to limit the growth in the bank's lending capacity directly.

The first involved the use of a device for soaking up excess liquidity building up in nonfinancial companies. It is called a "liquidity equalization account" and was established by a law enacted in June 1979. This is an account that nonfinancial companies can open at the Riksbank into which they can deposit funds at either of two advantageous interest rates, depending on how long the funds are left in. To qualify, a large initial deposit and minimum balance (100,000 Skr) are required. A maximum was set at twice the amount of money allocated by a company to the investment reserve fund over the 2 years 1979 and 1980.

The IF fund, as previously noted, is an element in the company tax system designed to shift the timing of investment by exempting from central government tax a portion of gross profits, up to a specified limit, that companies are allowed to set aside during booms provided they are used for investment during recessions. One of the conditions is the deposit of part of the profits allocated to IF in blocked accounts at the Riksbank which, of course, gives the IF system a liquidity limiting effect. This effect is reinforced in the liquidity equalization account system byy defining the upper limit for deposits in such an account in such a way as to provide an incentive to maximize IF allocations. Something like the liquidity equalization accounts had in fact been tacked onto the IF system once before in 1960–61.

The new version offers companies a minimum interest rate, referred to as the "basic rate," set at specified points above the discount rate. The margin was successively increased from 1.25 to 2.75 percentage points in order to keep pace with the so-called "special deposit" rate which banks pay for very large deposits, ordinarily at least a million crowns, made for periods as short as a week. The special attraction of liquidity equalization accounts is the addition of a tax-free bonus rate of 2 percent on top of the basic rate for amounts remaining in the accounts until March 1981.

Funds withdrawn from the accounts prior to that date, subject to 2 months' notice, do not qualify for the bonus rate. Despite this restriction and the fact that the accounts were only available in the second half of 1979, companies had poured 3.2 billion Skr into them by the end of the year. This was slightly more than the amount by which the growth in companies' bank deposits in 1979 fell short of their growth in 1979. Thus, the accounts evidently achieved their aim of offsetting a portion of the liquidity effects of the budget deficit, keeping an amount equivalent to 7.3 percent of the deficit from adding to the banks' lending capacity or contributing to the outflow of reserves.

While this helped significantly to neutralize the liquidity effects of the budget deficit, the part of it financed by borrowing at the Riksbank still generated an important flow of cash into bank deposits. It was therefore still necessary for the Riksbank to try to hold down the resulting growth in the banks' lending capacity if the effects were to be further neutralized.

The principal instrument on which the Riksbank relied to accomplished this is a kind of reserve asset ratio which is referred to as the liquidity requirement. This is defined in terms of a ratio between certain specified assets and liabilities. The principal eligible assets now are cash, government securities, and housing bonds, while the principal liabilities are total deposits and authorized but unused credit lines and guarantees. The liquidity ratios are set separately for each of the major banks and categories of smaller banks. These variations are designed not to achieve any selective effects but to make the "burden" of the liquidity requirements fall evenly on banks whose liabilities differ in composition and growth.

Although the Riksbank formerly issued the liquidity ratios as recommendations, the pertinent provision of the law on credit policy instruments has been in force ever since the law went into effect in January 1975 so that the ratios are now legally binding. When the Riksbank makes a change in the liquidity ratios, it also announces the effect it is intended to have. This is stated in terms of the growth rate in nonpriority lending by the banking system as a whole or by specific categories of banks. In the case of the banks, this refers to all lending other than that for housing construction, except for lending refinanced by borrowing abroad. This growth in banks' "other lending" is the key target variable at which changes in liquidity ratios are aimed.

The liquidity requirement works as follows. Since banks have no desire to hold any more cash than necessary, they will try to meet their required liquidity ratios by holding a sufficient amount of interest-bearing eligible assets. They ordinarily try to keep their actual liquidity ratios a few percentage points above the required ratio. This "surplus liquidity," as it is called, provides them with some room for maneuver. Accordingly, if the required ratio stays unchanged, the banks have no purchase eligible assets in whatever proportion to their other lending may be necessary to keep their actual liquidity ratio in the desired relation to the required ratio and, in any case, to keep it from falling below the required ratio.

The amount of lending for which a bank can use a given increment in deposits is, therefore, diminished by the amount it has to divert for

such purchases. The amount of lending possible from the same increment is obviously diminished further if the required liquidity ratio is "special fee' if they fail to meet their required ratio, measured monthly against the average of their actual liquidity ratios over the preceding 12 months. Most recently, the special fee was set at an annual rate of 8 percent of the amount by which their eligible assets would have to be increased to meet the required ratios.

For 1979, the Riksbank set the target at a growth of between 8 and 10 percent for "other lending" by the banking system as a whole. To achieve that goal, changes in the required liquidity ratios were made on three occasions during the year. In March, the required ratios of the three largest commercial banks were raised by one percentage point to 37 percent, while those of most other banks went up by two percentage points to levels ranging from 27 to 37 percent.

A second round of increases, differently distributed, went into effect in July. In December, a change in the method of calculating liabilities had the effect of bringing about a slight further increase, while additional increases in the specified ratios to go into effect the following January were announced. At that time, the range was raised to between 29 and 38 percent. It was raised again to between 31 and 40 percent in July 1980 and to between 35 and 41 percent in November of that year—the highest levels yet.

Changes in the required liquidity ratios are made in response to developments monitored continuously. The extent to which the target growth of other lending is likely to be hit is gauged on the basis of how close the banks are to their required ratios and the projected flows from financing the budget deficit. While the commercial banks' surplus liquidity was declining in the early months of 1979, of their other lending continued at an annual growth rate of 12 percent, considerably above target. This triggered the March and July increases in the required ratios.

As a result, the actual liquidity ratios of several banks was brought under their required ratios and the average for all commercial banks was brought down to just a little over the required ratios by the third quarter. This was followed by a reduction in the growth of other lending during the last quarter that was sharp enough to bring the growth of commercial banks' other lending for the year as a whole down to 8.5 percent, in the lower portion of the target range. Savings banks' other lending was brought down to a 9.9 percent growth rate, just within the target range. It appears that, in this respect, the Riksbank's changes in liquidity ratio requirements served their intended purpose.

The Payments Deficit and Foreign Reserves

While the preceding measures seem to have clearly brought about the desired results for the year as a whole, it was only toward the latter part of the year that those measures directed at the growth of liquidity through the expansion of bank lending took hold. The growth of liquidity in the first half of the year was accompanied by an outflow of foreign reserves to which the Riksbank felt compelled to respond directly.

Over the first six months, private-sector transactions produced an accelerating outflow that exceeded 5 billion Skr, equivalent to over a

quarter of reserves at the beginning of the year. Since the recorded deficit in the current balance of payments over the same period was 3.4 billion, private sector capital flows were evidently adding to the outflow accounted for by the payments deficit. (Due to deficiencies in the payments statistics which tend to make them exaggerate deficits, the capital flows component may have been larger.)

The outflow could not continue at the same rate for long without threatening to reduce foreign reserves to the point where a devaluation would be unavoidable. Given the policy of maintaining the exchange at the parity at which it had been fixed in 1977, it was necessary to keep the decline in reserves from reaching that point. Essentially, that meant that the outflow had to be partly offset by capital inflows. Thus, the payments deficit had to be at least partially financed by foreign borrowing and the additional short-term capital outflows had to be reduced if not reversed. There was little possibility of financing the payments deficit by private-sector borrowing.

The growth of business liquidity relative to the very slow growth of investment, combined with the availability of credit at interest rates that were falling relative to the rapidly rising rates abroad, made it possible and preferable for business to finance itself without any net borrowing from abroad. As far as the short-term capital outflows were concerned, the option of direct controls was not available.

In contrast with the controls exercised by the Riksbank over long-term capital transactions across Sweden's borders, it does not exercise any direct control over short-term transactions, which largely take the form of trade credits, and would run into great difficulty if it attempted to. Under the circumstances, the most readily available remedies were government borrowing abroad and an increase in domestic interest rates. Both were pursued.

Much of the private-sector outflow during the first half of 1979 was in fact offset by government borrowing abroad, limiting the decline in foreign reserves to 1.3 billion Skr. Over the year as a whole, the government borrowed a total of about 9 billion Skr, offsetting roughly three quarters of the private sector outflow of 12.2 billion so that the decline in foreign reserves was held to 3 billion. Additional Riksbank transactions reduced the actual decline to 2.6 billion Skr. However, the government's borrowing would presumably have had to be greater in the absence of measures to raise interest rates along with the other steps taken to tighten credit policy.

As noted earlier, interest rates are subjected to detailed control in Sweden. This is another of the areas in which the law on credit policy instruments gives the government the authority to make the Riksbank's measures legally binding but in which that authority has not been invoked until very recently. The Riksbank was given the right to issue binding directives concerning upper limits on the interest banks and insurance companies can charge on their loans at the same time that it was given that right concerning insurance companies' investment policy. Previously, the Riksbank regulated the interest rate structure through recommendations on interest both on deposits and on loans, which it monitored closely on the basis of detailed monthly reports which credit market institutions make under a general legal obligation to provide the Riksbank with the information it needs.

Changes in the Riksbank's discount rate are part of the interest rate regulation process, but the process extends far beyond that and the part played in it by the discount rate is different from the function the rate performs in most countries. The discount rate does serve as a reference point to which other interest rates are related, but it is not necessarily or even typically the rate at which banks borrow from the Riksbank. Swedish banks no longer do so by rediscounting. Instead, banks borrow from the Riksbank in the form of loans secured by Treasury bills and bonds, and the rate they pay tends to be higher than the discount rate. When the Riksbank makes it necessary for the banks to borrow from it, it does so in order to force interest rates up quickly, while retaining control over the structure and extent of the rise. For that purpose, it does not rely only on the discount rate. In addition, it uses a device called the "cash ratio requirement."

The cash ratio is defined as the ratio between the funds in banks' checking accounts at the Riksbank plus cash on hand and the banks' liabilities, calculated on the same basis as for their liquidity ratio requirements. Like the latter, cash ratio requirements have been legally binding since 1974, prior to which they usually had the status of recommendations. Insofar as banks' cash holdings are not likely to be much in excess of the required cash ratio, an increase in the required cash ratio may put them in a position where they have to borrow from the Riksbank in order to meet it, at least in the short run.

While banks can always borrow from the Riksbank, they can do so at the prevailing discount rate only up to a limit defined in terms of some specified portion of their equity capital. For any borrowing above that, the banks have to pay an additional penalty rate of some percentage points over the discount rate. Since the ratio of their equity capital liabilities is not likely to exceed their cash ratio by much, if at all, any borrowing they do at the Riksbank can readily put them in the position where they have to pay the penalty rate. By combining changes in all of these variables, the Riksbank can have a sharp impact. This is just what it did in July 1979.

The package of measures the Riksbank then announced comprised four components. First, the discount rate was raised from 6.5 to 7 percent and a corresponding rise was allowed in long-term rates. Second, the commercial banks' cash ratio requirement was raised from 2 to 4 percent. Third, the limit at which the penalty rate applies to bank borrowing at the Riksbank was lowered from 75 to 50 percent of their equity capital. And fourth, the penalty rate itself was raised from 2 to 3 percent. Within about two weeks after the cash ratio variables were changed, bank borrowing at the Riksbank had been forced up into the "penalty rate zone," and domestic money market rates went up correspondingly.

The Riksbank conducted a similar operation, although changes were made in only two of the variables, in November. At that time, an increase in the discount rate from 8 percent (to which it had been raised in September) to 9 percent was accompanied by a new increase in the required cash ratio from 4 to 6 percent. A further increase in the discount rate, from 9 to 10 percent, was accompanied by another increase in the required cash ratio, from 6 to 8 percent in January 1980. The cash ratio was dropped back to 2 percent the following

April, apparently because it was no longer necessary to achieve a rapid rise in interest rates.

At this point, in the Riksbank's view, it was "important to prevent an uncontrolled interest rate growth process," so that the emphasis was shifted back to regulating the whole structure of interest rates. Thus, it was at this time that the Riksbank got the right to set legally binding upper limits on the interest banks and insurance companies could charge and to impose placement ratios on the insurance companies. The Riksbank's request for the whole package of compulsory powers, including the power over bank placement ratios which it did not get, was in fact prompted by a dispute over interest rates with the insurance companies, which began to issue indexed loans contrary to the Riksbank's strong objections. Attacking one of the symptoms of inflation by indexing loans was condemned by the Riksbank as the wrong way to deal with the underlying problem, producing undesirable allocative effects and impairing the effectiveness of credit policy.

As evidence for the effectiveness of its interest rate policy in 1979, including the cash ratio measures, the Riksbank pointed out that the spread between the discount rate and special deposit rate referred to before increased from 1 to 2.5 percentage points over the course of the year. It stressed the particular relevance of the special deposit rate for short-term capital movements since "that rate directly affects companies' behavior with respect to payments abroad." In other words, the relative attractiveness of making short-term investments at home and of financing trade by borrowing abroad are both increased by a rise in the special deposit rate, thereby tending to reverse the direction of short-term capital movements.

Generally, the increase in domestic interest rates seems to have had the intended effect: it kept the outflow of foreign reserves from running too far ahead of the balance-of-payments deficit. While the total outflow during 1979 was 12.2 billion, the payments deficit was 11.2 billion. For the year as a whole, the difference of 1 billion, attributed to private sector capital transactions, was smaller than it apparently had been for the first half of the year alone.

Financing the budget deficit by foreign borrowing to the extent that it was in 1979—about a fifth of the total—equivalently diminished the amount that had to be financed on the domestic market. Since less of the budget deficit had to be financed on the domestic market, the task of getting as much of it as possible financed outside the banking system and of limiting the extent to which the banks' lending capacity was expanded in the process of financing the rest were both eased.

To perform these tasks when all or nearly all of the budget deficit would have had to be financed on the domestic market would have required an even tighter credit policy than the one that was pursued. This would have imposed even heavier burdens on the lending capacity of the nonbanking credit market institutions and put an even greater strain on the Riksbank's ability to regulate bank lending than was the case. Moreover, the wider economic consequences would probably have been undesirable. Higher unemployment would have been difficult to avoid, and the industry investment on which a solution to the underlying economic problem is believed to be contingent would

have been further inhibited. As it was, some tightening of credit policy had evidently been necessary to keep the decline of foreign reserves within limits consistent with foreign exchange policy, but the tightening would undoubtedly have had to be much greater if the main burden of keeping foreign reserves at the required level had not been borne by the government's borrowing abroad.

Nevertheless, the very need for the government to engage in such borrowing to the extent that it did in 1979 pointed to the magnitude of the "two imbalances" in the Swedish economy and the fundamental problems underlying them. Those two imbalances continued to grow in 1980, reflecting the persistence of the underlying problems. As indicated at the outset, the budget deficit is estimated to rise from 9.6 to 10.4 percent of GNP between 1979 and 1980 and the payments deficit from 2.5 to 4.0 percent. The increased payments deficit implies further growth in government borrowing abroad, which has in fact been substantial during the first half of the year. While this can continue to ease the tasks of neutralizing the budget deficit's liquidity effects, the amount still to be financed on the domestic market implies that the tasks may further strain the capacity of the available instruments to perform them.

Thus, as we saw, the Riksbank felt compelled to seek compulsory powers over credit market institutions' interest rates and investment policy and also to raise liquidity ratio requirements to their highest historic levels in 1980. At the same time, it exhibited continued concern over the establishment and growth of new forms of credit facilities beyond the reach of the controls at its disposal. The development of such facilities, referred to as the "grey market," tends to be accelerated whenever the Riksbank uses the regulatory apparatus to tighten credit policy.

For example, a major form of grey market credit facility, trade credits granted by nonfinancial companies to each other, clearly varies inversely with the availability of credit on the organized market. Since such companies are not credit institutions under the law, the rates and other conditions of their lending are not subject to the Riksbank's authority.

The Riksbank has nevertheless tried to use the controls it has or create new ones so as to limit the extent to which this and other kinds of grey market facilities can counteract its policy. In 1977, the Riksbank ruled that if a nonfinancial company wants permission for a bond issue, no less than 80 percent of any placement of its liquid assets would have to be in bank deposits. It thereby sought to draw into the regulated market some of the funds that might otherwise have gone into the grey market. The introduction of liquidity equalization accounts in 1979 can be seen partly as an effort to attract funds away from the grey market as well as from the banks and foreign placements. Finance companies engaged in factoring, leasing, and credit card operations, another form of grey market facility that grew rapidly in the 1970's, were declared to be credit market institutions subject to the regulations applicable to such institutions by legislation enacted in 1980.

In 1980, then, the interaction of two of the main symptoms of Sweden's economic problems, the large budget and payments deficits, con-

tinued to define the tasks of credit policy with which the Riksbank sought to cope by using the regulatory apparatus at its disposal. Not all of that apparatus has been put to use in the most recent period which we have been reviewing. In particular, compulsory ceilings on the growth of the banks' other lending, as opposed to controlling lending through liquidity ratio requirements have not been imposed. This had been done in several earlier periods, the most recent of which was for six months beginning in October 1976. Most of the other instruments have been put to intensified use as the magnitude of the symptoms has grown, while the scope of the apparatus has been expanded in various ways to counteract the erosion of control by developments in the grey market.

A Summing Up: Credit Policy Issues in the Context of Crisis

The more strenuous reliance on regulations to control the credit market has given renewed impetus to the criticisms typically advanced against the regulations in the past by many economists and particularly the banking community, reinforced somewhat by the revival of monetarist doctrine. To be sure, there is not much sentiment for holding Sweden's economy hostage to some monetary aggregate. Thus, in the most recent annual report on the economy by a private research organization, a group of eminent Swedish economists point to the problem posed for monetary targeting by the fact that the monetary aggregates which are controllable by governments and central banks have no stable relationships with nominal national income, while those which do have such relationships are not controllable. While the problem might not be insuperable for a large country, they argue, monetary targeting is ruled out for a small country like Sweden because it would wreck havoc with its exchange rate.

Since the money supply is highly sensitive to what happens to the balance of payments when exchange rates are fixed or managed, monetary targeting presupposes floating exchange rates. But this turns a "small country's exchange rate into a plaything in the hands of the foreign exchange market's giants." Switzerland is cited as a case in point, where monetary targeting had to be replaced by exchange rate stabilization in order to keep the rate from being "driven up to a level at which hardly any domestic industry could survive." They could well have cited the British case.

What the critics call for instead is the deregulation of the credit market to enable the price mechanism to function effectively in it. Once interest rates are allowed to move freely to adjust the demand and supply of various kinds of credit, in their view, the detailed controls used to manage the flow of credit at disequilibrium interest rates can be dispensed with. This position has been pressed especially insistently by the banking industry. Its basic complaint is that the banks have been deprived of the essential function of channeling finance to industry which they performed historically, and which they are best equipped to perform, and turned into dumping grounds for government securities and housing bonds which could not otherwise be sold.

In more specific and subdued terms, the banks' complaint was spelled out in a joint memorandum to the government by the organizations of the three categories of banks in reply to the Riksbank pro-

posal to renew the law on credit policy instruments for 3 years through 1981. Arguing that the various instruments provided for in the law were supposed to be used only for limited periods under exceptional circumstances, the memorandum charges the Riksbank with having used the instruments continuously and simultaneously to build up a complicated network of controls that impairs both the credit market's effectiveness as an allocator of capital and the effectiveness of credit policy as an instrument of stabilization.

The network of regulations is so complex that the effects of specific measures cannot be disentangled, making it impossible for the Riksbank to fulfill the requirement that they be "competitively neutral" as between different institutions, while the overall effect of the regulations has been to make savers and lenders subsidize borrowers. The absence of a bond market in which households and businesses participate, in turn, deprives open market operations of their utility as an instrument of stabilization policy. Meanwhile, the grey market is continuously developed, placing financial transactions beyond the reach of the instruments on which the Riksbank has to rely.

The remedy that is advocated is an elimination of the detailed control of interest rates which deny the banks the flexibility required to equilibrate the supply and demand for credit among all lenders and borrowers. This would bring all financial transactions within a single market where the costs of alternative uses of credit can be effectively compared and where the volume of transactions could be effectively tailored to the requirements of macroeconomic stability.

In countering this position, the present governor of the Riksbank, Lars Wohlin, does not gainsay the ultimate desirability of shifting from detailed regulations to general instruments. He insists, however, that to dismantle the regulations under present conditions would only make the economy's underlying problems worse. The gist of his argument is that, in order to rely principally on general instruments such as the discount rate supported only by cash ratios and open market operations, interest rates would have to go so high, with such perverse effects, that the problems underlying the budget and balance-of-payments deficits would be aggravated. The main reason is the differential sensitivity of different kinds of economic activity to interest rates. To begin with, housing has been almost totally insulated from interest rate changes. It is financed at rates to borrowers well below prevailing market rates so as to assure the supply of housing in accordance with goals decided in the political arena, in which housing continues to be given high priority.

To assure the necessary finance, it is still necessary for the banks and insurance institutions to purchase whatever volume of housing bonds is required, but they are now paid market rates so as not to subject them to an onerous penalty for doing so and to avoid the serious strains that would otherwise result in the domestic credit market in view of its increased exposure to the international credit market. The difference between the rate to borrowers and lenders is made up by interest subsidies out of the budget. What this means is that the higher the market interest rates, the more budget expenditures on interest rate subsidies there has to be, so that, other things being equal, the budget deficit will be higher.

Second, households have become substantially less sensitive to interest rates because of high inflation, high marginal income tax rates, and the full income tax deductibility of interest payments. These make it pay to borrow in order to finance consumption, since they lower the real interest rate to less than zero for up to very high nominal interest rates for upper bracket taxpayers. Wohlin estimates that, for average income levels, the nominal interest rate would have to rise to 35 percent before the real rate exceeds zero while, for high income levels, the nominal rate would have to rise to over 50 percent.

Other sectors are significantly shielded against interest rate changes because of institutional arrangements that enable them to compensate for increases in interest costs. Thus, agricultural prices are set by annual negotiations between the government and agricultural organizations on the basis of the principle that farmers' incomes should keep pace with those of other groups. Increased interest costs to farmers will accordingly be compensated directly by higher prices or indirectly by higher subsidies, the latter of course being budget expenditures that add to the deficit. Local governments are in a position to compensate themselves for higher interest costs by raising local income taxes.

The only sector that is said to be highly sensitive to interest costs is that producing traded goods. Since it is exposed to international competition, it has difficulty in compensating for increases in interest costs as well as labor and other input costs. Increased interest rates would, therefore, hit the traded goods sector, consisting primarily of industry, the hardest. Its international competitiveness would be reduced, worsening the balance-of-payments deficit, not only in the short run but long run as well, as declining sales and profits inhibit investment. Consequently, the traded goods sector—which is already too small—would be further reduced, deepening the structural disequilibrium between the Swedish and international economies.

Meanwhile, rich households, local governments, and subsidized enterprise which would be less hard hit would be able to maintain their command over resources. Insofar as saving in those sectors are channeled into investment according to the market logic of highest returns and lowest risk, it would go into real estate and speculation in commodities like gold and collectibles rather than into industry with its currently low profits and high risks. Thus, as Wohlin concludes, "We will get a reallocation of resources which is the opposite of what the economy requires."

As Wohlin sees it, the important issue is not credit market regulation as such but how to get the kind of reallocation of resources that is required. A "well functioning credit market" could bring such a reallocation about in the absence of the existing apparatus of regulation under appropriate conditions, but it would do the very opposite under present conditions. This leaves basically two choices. One is to leave the present conditions unchanged. In that case, there is no alternative but to continue relying on the apparatus of regulation, which has to be extended further and further to keep up with the creation of new ways of getting around it. The other is to change the conditions in such a way that the relative profitability of different kinds of investment would induce a pattern of investment more consistent with the requirements of the economy.

While unequivocally preferring the second option, the governor of the Riksbank insists that it can only be pursued if the government makes necessary changes in fiscal policy. In his view, such fiscal policy measures would have to achieve two broad objectives. One would be to reduce the budget deficit and hence the need for credit market regulations to counteract the resulting inflationary pressures. This he views as requiring primarily a reduction in the growth of public expenditures. The other objective would be to increase the sensitivity of interest rates in those sectors now largely insensitive to them and to improve the rate of return on investment in industry relative to other investments. This he views as requiring reductions in marginal income tax rates and changes in the tax treatment of both interest costs and interest income, as well as increased incentives for investment in shares relative to other forms of investment.

If the necessary fiscal policy changes are made, it would then, but only then, be possible to shift from the direct controls on which credit policy now relies to general instruments, for only then would a well functioning credit market be capable of bringing about the reallocation of resources on which the future of Sweden's economy depends.

The government's response to the banking community's call for the deregulation of the credit market was to appoint a committee of inquiry to make a thorough comparison between a continuation of credit market regulation and a shift to a "free credit market." There does not seem to be a great deal of difference between the Riksbank and the government over this issue, however. The governor of the Riksbank tends to emphasize the need for making fiscal policy changes before credit market regulations can be relaxed, while government officials tend to emphasize the possibilities for relaxing regulations without waiting for all the fiscal policy changes to be carried out. At the same time, as we saw, the government has gone along with most of the Riksbank's requests for tightened controls, while the Riksbank has also taken occasional steps to loosen up some controls, such as those on long-term interest rates.

There is general agreement between Riksbank and government on the thrust of the fiscal policy changes that are required to open the way for the second opinion—i.e., to create the conditions under which a well functioning credit market will bring about the required reallocation. Essentially, those are the kind of changes that are designed to make it possible to provide industry with an increase in equity capital out of private savings. The consensus among the key economic policymakers currently in power concerns this fundamental issue of how increased industrial investment is to be financed. The issue of credit market regulation is thus subordinate to this issue of credit policy in its broadest sense. But it is over this issue, as we have tried to show, that there is the most significant division between the major actors in the Swedish political economy, the present government, and its principal supporters, on the one hand, and the Social Democratic labor movement, on the other.

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