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# U.S. EXPORT COMPETITIVENESS

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**HEARING**  
BEFORE THE  
**JOINT ECONOMIC COMMITTEE**  
**CONGRESS OF THE UNITED STATES**  
NINETY-SIXTH CONGRESS  
SECOND SESSION

—————  
JULY 29, 1980  
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(III)

# U.S. EXPORT COMPETITIVENESS

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TUESDAY, JULY 29, 1980

CONGRESS OF THE UNITED STATES,  
JOINT ECONOMIC COMMITTEE,  
*Washington, D.C.*

The committee met, pursuant to notice, at 10 a.m., in room 5110, Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senators Bentsen and Roth.

Also present: Louis C. Krauthoff II, assistant director-director, SSEC; Charles H. Bradford, minority counsel; and Kent H. Hughes and Mayanne Karmin, professional staff members.

## OPENING STATEMENT OF SENATOR BENTSEN, CHAIRMAN

Senator BENTSEN. Ladies and gentlemen, this hearing will come to order.

The United States faces, I believe, its toughest economic challenge since World War II. At the end of World War II, America was the world's unrivaled leader politically, economically, and in the military sense. For three decades following the end of that war we remained the world's major trading force. A trade surplus was looked on as a part of the natural course of events for America. But we continued to rest on those postwar laurels when they were already beginning to wither.

In 1971, we experienced the first trade deficit in this century. The deficits have continued and they have deepened over the course of the decade. We have reached a point in our economic history where to achieve a surplus in merchandise trade it requires a cheap dollar coupled with a recession at home and relative economic prosperity overseas.

This chart [indicating] shows part of our problem. It compares what the Japanese and the Germans have achieved in terms of trade in manufactured goods to our own performance. It's a sobering story.

In 1979, we suffered a slight deficit in industrial trade. At the same time, Germany had a surplus of almost \$60 billion while the Japanese surplus was well over \$70 billion.

There are several elements of strength still left in our international position. Our agriculture and our high technology goods still meet world-class standards. Much is also made of the large and growing surplus in the sale of international services, but even there I see a cause for concern. We have often neglected or hamstrung our service industries and, in any case, much of our surplus comes from repatriated profits. I am not content to see America become an aging dowager clipping coupons from investments of the past.

I suspect that our lagging trade performance has many causes. Among the industrial nations we are the only one that doesn't have a truly organized, aggressive trade policy. Where others are carefully honing their export skills, we are just as likely to use our economic strength to achieve a variety of political goals.

Our economy has fallen into some very difficult times. Behind the bad news of the current recessions hovers a downward trend in productivity, slow growth in investment and an aging industrial plant. We have been slow to learn from our industrial partners who are moving aggressively to challenge our current lead in high-technology products.

The Japanese are doing an outstanding job of it and, with the government banks and industry working together, have put billions of dollars into challenging us in such fields as computers and semiconductors.

Before continuing I will, without objection, place Senator Roth's opening statement in the hearing record at this point at his request.

#### OPENING STATEMENT OF SENATOR ROTH

I would like to thank the chairman, Senator Bentsen, for conducting this hearing on a most critical issue: the state of U.S. competitiveness. Today's session points out one of the most serious problems facing our country today—the United States is no longer the world's leader in international trade. By identifying the roots of our falling productivity, our loss of technological lead and our eroding world market share, this hearing can help us reverse our decline and enable us to regain our international preeminence and, most importantly, our domestic economic vitality.

We can see the effects of our decline in competitiveness in all areas of our economy. We see them in persistent trade deficits, for example. For the period 1976 to 1979, we exported \$100 billion less than we imported. In 1980 alone, we may see our negative trade balance reach as high as \$40 billion.

We see them in our declining global market share. From 1956 to 1979, the U.S. share of world trade in manufactures declined from 25 percent to 16 percent.

Moreover, in areas in which we had formerly been internationally competitive—areas such as steel, fabricated metals, automotive equipment, consumer electronics, appliances and machine tools—we have seen imports climb precipitously. Indeed, the share of imports in domestic consumption has risen to the point that imports are displacing American workers and firms in key U.S. industries.

Many of our trading partners, particularly Japan and West Germany, are overtaking us in the race to export. In 1979, exports represented only 7.7 percent of the Gross National Product of the United States. In Japan, exports had a 10 percent share, and in West Germany, they represented 23 percent. Even more telling is that, in 1976, we exported approximately 23 percent of all goods produced in the United States. The Japanese exported 36 percent and the West Germans, 55 percent.

The superior export performance of the West Germans and the Japanese relative to their production arises from the great priority that those countries' governments, businesses and labor place on exporting and competitiveness. We must place this same high priority on international trade if we are to regain domestic economic health, international economic strength and long-term security for U.S. workers.

We must all remember that export activity generates employment. For every \$1 billion we sell overseas, we provide jobs for 40,000 American workers. Georgetown's Center for Strategic and International Studies estimates that approximately 3.5 million U.S. jobs are associated with the export of manufactured goods. We must raise this export-related employment, however, if we are to provide jobs for the 20 million Americans who will enter the work force over the next ten years.

One of the most effective means of restoring U.S. international competitive strength is through a coherent and consistent national export policy that places

trade at the top of our list of national priorities. For too long, export objectives have been sacrificed to the achievement of other goals be they foreign policy-related or matters of domestic expediency. We have confounded and burdened our exporters with contradictory tax policies, onerous antitrust policies, cumbersome bureaucratic machinery and ever expanding regulatory policies. As a result, rather than promoting exports and greater efficiency through increased capacity utilization, our policies have acted to discourage trade.

To remedy this situation, the government must provide an improved institutional structure that promotes exports. Last year, I proposed the formation of a Department of International Trade and Investment, with a Cabinet member who would push trade objectives as a national priority. I continue to support the formation of such a department and will vigorously pursue the achievement of this objective to ensure our export success. In addition, we must amend our laws that hinder international competitiveness.

The government can work hard for changes, but we must have business' and labor's support and active participation in the export effort if we are to be fully successful.

Through consensus, cooperation and enhanced communication, business and labor can greatly advance the cause of improved productivity and trade performance. Business and labor have cooperated in Japan and West Germany, and we can all see the results. Business in those countries have placed the maintenance of job security and involvement of labor in the decision-making process on a par with the making of profits. Moreover, workers in Japan and West Germany understand that improvements in productivity through technological advance need not cost them their jobs. The sense of security translates into a greater will to cooperate.

We in the United States also must cooperate and learn to share ideas if we are again to become a successful, predominant global economic actor.

This hearing can ultimately help solve the trade problems that confound us. I am confident that through discussions like these and meetings conducted on a more informal basis at the plant, firm and community level, we will reach the consensus we need to turn this country around.

Senator BENTSEN. We are very fortunate this morning to have three excellent witnesses who have an understanding of the broad question of U.S. export competitiveness: William Verity, president of the U.S. Chamber of Commerce of America, who's played a leading role in moving this country toward the development of an active export policy; Michael Aho, Director of the Office of Foreign Economic Research in the Department of Labor, is a long-time student of America's shifting trade fortunes. Over the past few months he has worked intensively on the administration's forthcoming study of U.S. export competitiveness. We are also very pleased to have with us William Rapp, vice president of Morgan Guarantee Trust. As a close observer of Japanese economic policy, we expect Mr. Rapp to give us a hard look at what lessons we can learn from foreign experience. I might say, Mr. Rapp, it's kind of a sobering and leveling process to have the Japanese come in to testify and tell us how they did it.

I'd like to start off this morning with Mr. Verity.

**STATEMENT OF C. WILLIAM VERITY, JR., CHAIRMAN OF THE BOARD, ARMCO, INC., MIDDLETOWN, OHIO, AND CHAIRMAN OF THE BOARD, CHAMBER OF COMMERCE OF THE UNITED STATES OF AMERICA, ACCOMPANIED BY JOHN L. CALDWELL, VICE PRESIDENT, INTERNATIONAL, AND HOWARD WEISBERG, DIRECTOR, INTERNATIONAL TRADE POLICY**

Mr. VERITY. Thank you, Mr. Chairman.

I am Bill Verity, chairman of Armco and also chairman of the board of the Chamber of Commerce of the United States of America, and I

have with me in support of any questions that might be asked John Caldwell, who is vice president of the International Chamber, and Howard Weisberg, director of International Trade Policy.

I would like to commend you, Mr. Chairman, for your opening remarks because it seems to me you have set the stage very well for what our problems are and perhaps some of the things we need to do to get out of the problems that we have.

I have prepared a statement which has been filed with you.

Senator BENTSEN. Without objection, it will be printed in the hearing record at the end of your testimony.

Mr. VERITY. We have prepared a condensed statement which I would like to read and would be happy to answer any questions that you might have.

I'd like to start out by talking about what I believe is one of America's most pressing problems—sagging performance in world markets and with it a devastating trade imbalance. It's our increasing failure to trade around the world that accounts in large measure for a weakened dollar and strained relations with allies, the general loss of political leadership, and a specific loss of jobs here at home.

Exports do create jobs. It's estimated that they currently support one out of every eight jobs and that each additional \$1 billion in volume comes to 40,000 new jobs.

Mr. Chairman, I believe that America must move now to become again the yankee trader of old. To do this requires nothing less than a major congressional overhaul of our Government's export policy. I'm especially pleased to appear here today because in recent weeks such a major solution has emerged in the National Export Policy Act of 1980, S. 2773 and H.R. 7479. I am personally convinced that support for this comprehensive bill is crucial to the health of our economy and I'm also pleased to report to you that on June 19, 1980, the U.S. Chamber's board of directors unanimously endorsed the general purpose and thrust of this act.

Rather than commenting on the entire bill, I would like to single out five major areas that we believe warrant immediate action.

We need export financing facilities more in step with those of our competitors. In a world where comparable products, services and technologies are widely available, financing terms are often the single most persuasive factor in securing U.S. export sales. Yet we continue to lose markets to our foreign competitors because our Export-Import Bank cannot match the financing arrangements of its European and Japanese counterparts.

The problem is dramatized by the fact that not only is Eximbank out of funds for fiscal year 1980 but already carrying commitments for more than \$2 billion for fiscal 1981 and \$1.6 billion in fiscal 1982. We project a need in fiscal 1980 for direct loan funding of at least \$7.2 billion and in 1981 of \$8.1 billion, and these figures do not take into account anticipated needs to finance trade with the People's Republic of China.

A supplemental appropriation is clearly needed to enable the Bank to continue its operations for the balance of this fiscal year. Failing this, export volume and with it jobs will go to our competitors. Part of the problem for Eximbank derives from its inappropriate treatment as a part of the foreign assistance budget. Eximbank is a tool

which allows America to compete. It doesn't belong in a foreign assistance budget.

We also believe that international export financing practices must be effectively harmonized. The international arrangement on officially supported export credits has not brought United States and foreign exporters into a competitive balance. Subsidized interest rates and mixed credit competition are freely pursued. The arrangement should be changed so as to effectively control or eliminate predatory export financing practices.

This goal could be met by: One, minimum interest rates which approximate commercial rates; two, an end to mixed credits; three, the inclusion of such sectors as aircraft and nuclear power which are presently outside the agreement; four, enforcement provisions; and five, the participation of new industrialized countries such as Brazil, South Korea, and Taiwan which utilize government support to export financing.

Until such time as predatory financing practices are eliminated, the U.S. Chamber supports proposed legislation such as the Competitive Export Financing Act of 1980 which is S. 2339 and H.R. 6596 which provides the Eximbank with the authority and the resources to meet all export credit competition.

The second issue that we would like to discuss is the Trading Company Act which we believe is imperative. General purpose trading companies do not widely exist in the United States and this is not the case with our trade competitors.

Legislation now under consideration with the Congress would place U.S. exporters, especially the small businessman, in a stronger competitive position by providing a one-stop source for the full range of services which are required in order to sell abroad. Key provisions of this legislation must clearly state exemption from U.S. antitrust laws; allow bank investment in trading companies; earmark government seed money for startup costs; and extend to such companies specific tax incentives.

The Foreign Corrupt Practices Act must be clarified. As members of this committee learned from their study mission to East Asia this year, the Foreign Corrupt Practices Act has created more problems than it has solved. Although difficult to quantify, it's clear that the act is costing the U.S. economy a significant amount each year in lost exports.

The U.S. Chamber is currently conducting a survey of its member companies as well as the American Chamber of Commerce abroad for the purpose of compiling information on the impact of FCPA on U.S. business. The U.S. Chamber does not condone corrupt business practices in any form. However, our moral imperialism, unilateral position of American attitudes, serves only to close doors. We fully support the Joint Economic Committee's joint resolution, Senate Joint Resolution 161 and House Joint Resolution 532 calling upon the President to press for an international code and requesting a report on the results of negotiations. Unfortunately, the prospects for internationalizing the FCPA either through a United Nations convention or an OECD arrangement are almost nonexistent in the immediate future.

The volume of comments received by the SEC on its proposed rule for the accounting provisions was the largest negative response in



SEC's history and clearly suggests that something is wrong with this provision of the act. The vagueness and ambiguities of the bribery provisions have caused some companies to abandon certain overseas markets.

In addition to language difficulties, there are jurisdictional problems with the FCPA. There's divided jurisdiction between the SEC and the Justice Department for section 103. The Justice Department has promulgated halfhearted guidance for the FCPA in the form of business review procedure regulations. The SEC refuses to be bound by the Justice Department's clearance and is unwilling to clarify its enforcement policy priorities.

The best course for making the FCPA more effective in allowing U.S. business to be competitive appears to be Senate bill 2763 recently introduced by Senator Chafee and cosponsored by the chairman of this committee. It resolves numerous problems. Particularly constructive is the provision removing the SEC from the enforcement of section 103. The SEC's mandate is to protect investors, not to police commercial business activities. In the debate on how best to amend the FCPA, we believe further attention must be given to the concept of reason to know. The Chamber is working on this and, Mr. Chairman, we would hope within a reasonable period of time to have some policy statements in this regard.

Tax policy must play a supporting role in export expansion. That is not now the case. A major problem concerns the taxation of Americans' employment abroad. The cost to U.S. firms of employing U.S. workers overseas has risen dramatically over recent years. Rising tax costs have forced many U.S. employers to reduce the number of American workers or replace them with foreign nationals. This trend has serious adverse consequences for the U.S. exports.

Increased tax costs hit particularly hard at service industries, one of our most rapidly growing areas of export trade. Despite passage of the 1978 legislation amending section 911 of the Internal Revenue Code, problems regarding the taxation of foreign-earned income remain. We applaud and support this committee's call for the congressional tax committees to convene hearings on section 911 and 913, their impact on trade, their implementation by the IRS, and proposed legislative remedies, and we hope that that action can happen soon.

Needs of small business seeking to export have received constant attention. While some progress for tapping the export potential of small- and medium-sized business has been made, much more must be done to sell the export possibilities and benefits to these companies.

In addition, the legislative proposals for trading companies and one-stop export service centers and other possibilities for encouraging small business participation in export should be included, Eximbank financing programs for small- and medium-size businesses to provide working capital, simplified credit approvals, and guarantees for export financing, a reduction in the paperwork requirements for foreign transactions, the extension of Small Business Administration assistance for small businessmen to U.S. citizens living and working abroad, improved DISC treatment for small businesses; and a program to bring more foreign distributors and customers to the United States so as to establish direct personal contact with U.S. small businessmen in their own familiar industry trade shows.

Gentlemen, progress in these five major areas would contribute significantly to creating a comprehensive and consistent national export policy.

Now the private sector has an equally important role to play in this regard. Let me comment on two major initiatives that come from the chamber's list of priorities and mine as chairman in this most crucial election year.

The translation of a national export expansion policy into action must of course require the active involvement of companies and the vast network of chambers of commerce trade associations and other membership organizations that serve business in this country. We must put to rest what I call the policy that exports are an option to pursue after we fill the domestic market.

With this in mind, the chamber has been studying the feasibility of creating a limited but specialized export promotion and development staff that would operate in close cooperation with government export agencies, particularly the Department of Commerce. A closer working relationship between district commerce offices and local and regional chambers of commerce could do much, for instance, to extend the reach of existing Government programs to some of the 250,000 small- to medium-size businesses with untapped export potential.

Finally, it's one thing to identify the critical components of a national export policy and quite another thing to see them enacted into law. As chairman of the chamber, my top priority is the building of a political constituency for exports among voters at the local level. The chamber has initiated this year the first phase of a national three-prong grassroots program called "Let's Rebuild America in the 1980's." The call for congressional action on a national export policy and our specific support of the National Export Policy Act of 1980 is one of this program's three major elements.

My message to chamber membership and media as I travel throughout the country is that we must restore yankee trader know-how.

In conclusion, I believe that the National Export Policy Act of 1980 correctly identifies the key elements of a comprehensive policy. It also provides a focal point around which to rally the political support necessary for meaningful congressional action. We pledge to you the support and resources of the U.S. chamber which is eager to see this country become again the yankee trader of old.

Thank you very much, Mr. Chairman.

Senator BENTSEN. Thank you, Mr. Verity. That's a very helpful statement and I agree with much of what you said about the disincentives and certainly support the efforts to try to reduce them.

[The prepared statement of Mr. Verity follows:]

#### PREPARED STATEMENT OF C. WILLIAM VERITY, JR.

I am C. William Verity, Jr., Chairman of the Board, Armco, Inc., and Chairman of the Board of the Chamber of Commerce of the United States, on whose behalf I am appearing today. Accompanying me are John L. Caldwell, Vice President, International, and Howard Weisberg, Director of International Trade Policy for the U.S. Chamber.

The U.S. Chamber's membership of over 95,000 small, medium, and large businesses, 1,335 trade associations, over 2,700 state and local chambers of commerce, and 44 American chamber of commerce overseas has a large stake in fostering a strong U.S. economy and a vigorous competitive position in world markets. For

this reason, we welcome the opportunity to appear before this distinguished Committee to express our views on the need for and components of a national export policy.

The United States is likely to experience this year the largest trade deficit in its history, perhaps as high as \$40 billion. This intolerable performance is, in part, a consequence of our weakened competitiveness and inadequate efforts to promote exports. The adverse impact of this declining presence in world markets on our economy and the threat to our future as an international political and economic power are of serious concern to us. In our judgment, we must vigorously pursue a national policy to increase U.S. exports.

Toward this objective, the National Export Policy Act of 1980 (S. 2773 and H.R. 7479) was recently introduced in both houses of Congress. We welcome this initiative to provide a legislative context for a comprehensive review of specific measures that address different aspects of trade policy. On June 19, 1980, the Board of Directors of the U.S. Chamber adopted a motion endorsing the general purpose and thrust of the National Export Policy Act of 1980.

Today, rather than commenting on the entire bill, I would like to single out five critical areas that need priority legislative attention—(1) export financing; (2) trading company legislation; (3) the Foreign Corrupt Practices Act; (4) tax policy to stimulate exports; and (5) small business participation in exporting. If significant progress can be achieved in these areas, we will have the beginnings of a comprehensive national export policy. I will also highlight some of the efforts necessary from the private sector to expand exports, for this side of the picture is as important as the legislative.

#### FIVE PRIORITY INCENTIVES AND DISINCENTIVES

##### *A. Export financing*

A point that we at the U.S. Chamber, as well as many other organizations concerned with U.S. trade performance, have made time and time again is that in a world where comparable products, services, and technologies are widely available, the terms of financing are often the single most persuasive factor in securing a U.S. export sale. Yet, we continue to lose foreign markets to our trade competitors because our Export-Import Bank cannot match the financing arrangements of its counterparts.

The problem is dramatized today by the fact that Eximbank has run out of money for direct loans. In January, it became apparent that because of insufficient resources, the Bank would have to significantly cut back on its future commitments. By April, it was clear that, even with this reduced level of activity, there would be no funds available for direct loans after June 1. Not only is Exim out of funds for fiscal 1980, but it is already carrying commitments for more than two billion dollars into fiscal 1981 and \$1.6 billion into fiscal 1982.

In testimony before the International Finance Subcommittee of the Senate Banking Committee in February, the U.S. Chamber projected a need in fiscal 1980 for direct loan funding of \$7.2 billion and for fiscal 1981 of \$8.1 billion. These projections were based on conservative estimates by major exporting companies and do not take into account anticipated needs to finance trade with the People's Republic of China. Between underestimates of Exim's needs by the Administration, congressional efforts to balance the budget, and present congressional disfavor with foreign assistance (where, inappropriately, Exim funding has been placed), the Bank is left in fiscal 1980 with an inadequate direct loan authorization of \$3.75 billion. A supplemental may raise the figure to \$4.1 billion, which is also the authorization amount expected for fiscal 1981. After subtracting the two billion dollar carryover, the residual for 1981 is only \$2.1 billion.

The Chamber has urged a balanced budget for years, but not at the expense of cost-effective programs like Eximbank, which contribute to rather than take away from GNP, employment, and, for that matter, federal revenues. The Treasury Department has reported that for 1977 and 1978 seventy percent of the total exports which Exim financed directly represented additional sales which might not have been made if Eximbank financing had not been available.

Part of the funding problem for Exim derives from the budget treatment accorded the Bank. Exim's annual authorization is a part of the foreign assistance appropriations funding and, therefore, suffers from current congressional adversity toward foreign aid and the consequent low ceilings placed on that budget function. Eximbank is in effect a domestic "assistance" agency and, as

such, belongs in a different budget category. The U.S. Chamber is presently preparing a position paper to assess various alternatives for treating Exim's annual authorization. Among the possibilities are to place Exim (1) off budget; (2) within a credit budget; or (3) within a trade budget. We will share our conclusions on this subject with the Congress as soon as possible. Our objective is to avert a recurrence of the present budgetary dilemma.

Eximbank's budget impact would be neutralized were there to be an international harmonization of exporting practices. If an agreement could be reached which lets interest rates go to commercial levels, the subsidy element (the difference between the prevailing rate and the Exim rate) in Exim financing would disappear and the Bank would become primarily a source of loan guarantees rather than direct credits. The International Arrangement on Officially Supported Export Credits has not been successful in bringing U.S. and foreign exporters into competitive parity with respect to export financing. Subsidized interest rates and mixed-credit competition are freely pursued, in spite of their costs to governments. If the Arrangement is to be changed so as to effectively control or eliminate predatory export financing practices, the following objectives must be attained:

- (1) minimum interest rates which approximate commercial rates;
- (2) an end to mixed credits;
- (3) the inclusion of such sectors as aircraft and nuclear power, which are presently outside of the agreement;
- (4) enforcement provisions; and
- (5) the participation of countries such as Brazil, South Korea, and Taiwan, which utilize government-supported export financing.

Until predatory financing practices can be eliminated, the U.S. Chamber supports proposed legislation such as the "Competitive Export Financing Act of 1980" (S. 2339 and H.R. 6596), which provides Eximbank with the authority and resources to meet all export credit competition. The intention of this legislation is not to encourage the continuation of predatory practices, but to send a clear signal to our foreign competition that we are serious in our commitment to bring an end to costly and inequitable subsidies. At the same time, the legislation would contribute to the ability of U.S. exporters to compete effectively for needed overseas business.

A fact of economic life is that once a country establishes its presence in a foreign market in a particular product or service, it is difficult for another country to gain a foothold in that market. There are a number of relatively stable developing countries with market potential for U.S. exporters which are ineligible for Eximbank financing because of the Bank's repayment criteria. These criteria are not always in keeping with the realities of current market conditions and the necessity for U.S. export expansion. The "Export Expansion Facility Amendments of 1980" (S. 2340 and H.R. 6595), if enacted, would meet the need for the allocation of funds to higher-risk developing countries.

Finally, on the subject of export financing, we believe that efforts must be increased to secure better financing arrangements for small and medium-size business. Demand is increasing for the discount loan program, which is designed to provide fixed-rate financing for transactions less than \$2.5 million, even though the interest rate is significantly higher than the direct loan rate and, therefore, internationally noncompetitive. Because authorizations are diminishing, Exim has initiated an onerous fee system in order to discourage demand for the program. In addition, there is no fixed-rate program in the United States for transactions between \$2.5 and \$5 million even though our competitors are providing financing in this range. It is clear that Eximbank needs to develop specific programs for small and medium-size businesses interested in exporting.

#### *B. Trading company legislation*

Let me now turn to legislative proposals to promote the formation of export trading companies. At the outset, I would like to make two general observations. First, sophisticated, general purpose trading companies do not widely exist in the United States; however, they could become a valuable asset to the U.S. exporter by providing a "one-stop" source for the full range of services which are required in order to sell abroad. Second, the various legislative proposals now under consideration in the Congress would create a uniquely American version of the trading company concept which preserves our traditional notions of antitrust, banking activity, and governmental support for commercial endeavors, while simultaneously recognizing the necessity for the U.S. exporter to be placed in a stronger competitive position internationally.

The legislation provides incentives and lessens disincentives in four key areas in the formation of trading companies by providing: (1) a clear statement of exemption from U.S. antitrust laws; (2) the permissibility of bank investment in trading companies; (3) governmental financial support for start-up and expansion costs; and (4) the extension to such companies of certain tax incentives.

### *1. Antitrust provisions*

Antitrust law finds its justification in promoting a desired level of competition within the domestic economy. However, its application extraterritorially often produces the sole result of lessening the U.S. exporter's competitiveness in foreign markets. The Webb-Pomerene Act has not effectively relieved the burden of the extraterritorial application of domestic antitrust law, as evidenced by the fact that Webb-Pomerene associations account for less than 2 percent of total U.S. exports. Compliance with the Act is difficult, costly, and subject to uncertainty regarding the scope of permissible activities which will preserve the antitrust exemption.

Current legislative proposals dealing with export trading companies and export associations address existing deficiencies in the antitrust exemption in three key areas.

First, the antitrust exemption would become applicable to the service sector, from which approximately 65 percent of the GNP is derived and which presently accounts for about 70 percent of domestic employment.

Second, the bill would create a more realistic standard of eligibility to qualify for the antitrust exemption. While the bills under consideration retain their predecessor's requirement that the purpose of the organization be export trade, they recognize that certain activities have unavoidable, though minimal, domestic consequences. Accordingly, the new standard would require a showing that activity will not result domestically in a "substantial lessening of competition or restraint of trade" and will not "unreasonably enhance, stabilize, or depress prices within the United States" (emphasis added).

Third, the legislation would create specified certification procedures for the purpose of assuring the business community that cooperative export activities will not later become subject to antitrust liability. The entire certification process should be implemented in a manner which is consistent with the legislative intent of encouraging the formation and operation of trading companies and associations. Therefore, the information required for certification by the Department of Commerce should neither represent a bureaucratic obstacle to the formation of such organizations nor deprive them of the flexibility of action needed to function effectively abroad.

### *2. Banking provisions*

The proposed bills would eliminate some of the existing prohibitions against banking involvement in commercial activities by allowing limited investments by U.S. banks in export trading companies. Banking participation is an important component of the legislation, because banks now deal with large numbers of small and medium-sized companies with undeveloped export potential, thus providing a valuable route for communicating export opportunities. In addition, banking organizations, through their foreign branches and correspondent relationships, offer a wide range of contacts abroad and a ready source of expertise in international trade practice. Also, the financing component of an export transaction is often its most crucial element. Banks of many of our major trading competitors hold equity interests in export trading companies and are therefore able to provide effective and essential trade financing. We believe that U.S. bank participation in export trading companies will enlarge the range of trade services which such companies can offer, as well as improve their competitiveness.

In endorsing banking participation in export trading companies, we realize the demarcation which has traditionally existed between commercial and banking operations. This proposed legislation does not signify an end to this basic policy of separation of functions, but rather creates a limited exception in instances where a U.S. commercial enterprise is engaged solely in export trade. The definition of an export trading company in the bills precludes its use as a vehicle for investment in domestic industries. Furthermore, the legislation provides only for limited investments by U.S. banks, subject in most instances to prior approval by federal bank regulatory agencies and subject also to certain safeguards and conditions. Both the regulatory supervision and imposed banking safeguards eliminate the possibility that U.S. banks in their activities with export trading

companies will overextend their capital reserves, grant preferential loan treatment, increase substantially their credit risk, or pursue a course of action which will result in a conflict of interest or unsound banking practices.

### 3. *Government financial participation*

The proposed bills recognize the heavy expenses associated with start-up and expansion activities. Funds appropriated to meet these expenses are vital to the overall sustained viability of trading companies in this country, and we hope that after a brief experience with the enacted law, more funds will be authorized than are presently called for, since the cost of setting up just one small overseas branch office can easily exceed one million dollars. The designation of the Economic Development Administration and the Small Business Administration as the administering agencies for these funds underscores the fact that export trading companies have particular relevance as trade promotion vehicles for small business. The Chamber also endorses the establishment of a guarantee program by the Export-Import Bank for export trading companies.

### 4. *Taxation provisions*

We believe that the extension of DISC eligibility to export trading companies partially addresses the need to provide a more favorable tax climate for potential exporters. Extending the DISC eligibility to the service sector would stimulate the formation of export trading companies and ensure their long-term growth, while eliminating the requirement of segregating artificially the export service receipts of an export trading company.

### C. *Amend the Foreign Corrupt Practices Act*

The U.S. Chamber does not condone corrupt business practices in any form. However, as members of this Committee learned from its study mission to East Asia earlier this year, the Foreign Corrupt Practices Act (FPCA) has created more problems than it has solved, and has left U.S. business at a significantly competitive disadvantage. Although difficult to quantify, it is clear that the Act is costing the U.S. economy a significant amount each year in lost exports. The U.S. Chamber is currently conducting a survey of its member companies, as well as of the American chambers of commerce abroad, for the purpose of compiling information on the impact of the FCPA on U.S. business and those necessary and accepted business practices which are carried out by our trade competitors in spite of local legal restrictions. When this study is completed, it is our intention to use it to demonstrate to the Congress that the FCPA in its present form has sacrificed the effective export of products and services for the ineffectual export of ethics.

Our unilateral imposition of laws often serves only to close doors for U.S. business, even if our action is taken to serve some other principle. For the FCPA in its present form to be internationally effective, while not serving as a major deterrent to U.S. exporters, it must become an international standard. In other words, what is needed is a harmonization of international business conduct.

We fully support the JEC joint resolution (S.J. Res. 161 and H.J. Res. 532), calling upon the President to press for an international code and requesting a report on the results of negotiations. We also take note of the declaration of the recent Venice Economic Summit Meeting committing governments "to work in the United Nations toward an agreement to prohibit illicit payments. . . ." Unfortunately, the prospects for internationalizing the FCPA, either through a United Nations convention or an OECD arrangement, are almost nonexistent for the immediate future. Most developed countries are content to reap the benefits of prohibitions on U.S. businessmen, and the developing countries generally are satisfied with the status quo. Add to this the fact that the United States has few "chips" to bargain with, and it becomes clear that the United States faces a difficult task in trying to persuade other nations to share our approach to the improper payments problem.

The volume of comments received by the SEC on its proposed rule for section 102, the accounting provisions, was the largest negative response in SEC history and clearly suggests that something is wrong with this provision of the Act. The vagueness and ambiguities of the bribery provisions, sections 103 and 104, have caused some companies to abandon certain overseas markets. The U.S. Chamber in a recent submission to the Securities and Exchange Commission (SEC) pointed out five critical terms or concepts that need further interpretation: (1) the extent of protection of good faith business transactions afforded by the word "corruptly"; (2) some reasonable limitation on the events or circumstances

which might give a company "reason to know" that an intermediary is making questionable payments; (3) guidance when a company transfers no value to an entity making questionable payments; (4) clarification of the circumstances under which companies may be liable for the acts of their officers, directors, employees, agents, or stockholders; and (5) examples of the duties of a foreign government employee deemed "essentially ministerial or clerical" within the definition of "foreign official."

In addition to language difficulties, there are jurisdictional problems with the FCPA. There is divided jurisdiction between the SEC and Justice Department for section 103. The Justice Department has promulgated halfhearted guidance for the FCPA in the form of business review procedure regulations. The SEC refuses to be bound by the Justice Department clearance and is unwilling to clarify its enforcement policy priorities.

There is little likelihood that the Justice Department or the SEC will contribute to the lessening of the adverse impact of the FCPA on U.S. business. The best course for making the FCPA more effective and allowing U.S. business to be more competitive appears to be legislative. S. 2763, recently introduced by Senator Chafee and cosponsored by the chairman of this Committee, would make significant inroads into the problem areas of the FCPA. Most notably, the bill provides for: (1) the addition of a materiality standard to the accounting and auditing provisions; (2) the inclusion of a requirement of knowing falsification or wrongful intent (scienter); (3) the transfer from the SEC to the Justice Department of the jurisdiction to enforce civil remedies under section 103; (4) the specification that the FCPA is not violated if the conduct is lawful under applicable foreign law; (5) improvements in Justice's business review procedure; and (6) modification of section 162 of the Internal Revenue Code to make the FCPA the applicable standard for nondeductibility of overseas payments.

There is a difference of opinion as to whether the concept of materiality is included in section 102 of the FCPA. If it is not, any transaction, no matter how small, would be subject to this provision. Companies are also required to keep their records "in reasonable" detail. The cost of recording every transaction in reasonable detail could add enough to business overhead to affect price competitiveness. Preliminary assessments suggests that the scienter and materiality provisions in the Chafee bill will be helpful in alleviating some of the problems created by the accounting provisions, without undermining the rationale for enacting the provision. We will be reviewing these proposed amendments with corporate financial executives and comptrollers, members of the accounting profession, and certain professional committees to fully delineate the appropriate parameters for amending section 102.

Particularly commendable is the provision removing the SEC from the enforcement of section 103. The SEC's mandate is to protect investors, not to police those business activities abroad which do not impact on shareholders. The latter strains the limited resources of the agency and is unnecessarily duplicative, since it is the Justice Department's responsibility to enforce the laws of this country.

The provision specifying that the FCPA is not violated if the conduct is lawful under applicable foreign law seems to us to be a natural and obvious clarification. There is absolutely no disincentive to one of our trade competitors to refrain from conduct which is perfectly lawful under the foreign jurisdiction.

In the debate on how best to amend the FCPA, further attention must be given to the concept of "reason to know." If the United States is to engage in international commerce, there will have to be substantial interaction between U.S. businessmen and foreigners. In some cases, local law requires foreign countries to retain the services of in-country representatives. We are concerned with what is required by the "reason to know" standard with respect to persons, such as local representatives, over whom a U.S. company exercises no control. We are attempting to formulate a specific proposal that addresses this issue.

Finally, we agree that improvements to Justice's business review procedure are in order. For example, documents submitted in accordance with the regulations should not be used for any other purpose than for FCPA clearance. Rather than ask Justice to improve its guidance, better results would ensue were a non-enforcement body with some trade expertise to develop guidelines under the FCPA. This seems appropriate since the issues are much broader than those on which Justice has expertise and will undoubtedly require the input of such departments as State and Commerce. The newly created Trade Policy Committee, with its broad representation, could serve as an appropriate body, particularly since Justice is a member.

For the above reasons, subject to our formulating suggestions to improve the proposal after drawing on the experience of our members, the U.S. Chamber supports Senator Chafee's S. 2763.

#### *D. Export-related tax policy*

Tax policy can and should play a significant role in a comprehensive approach to export expansion. The U.S. Chamber has long advocated tax changes to foster capital formation, in the belief that an improved investment climate in this country will increase productivity, create jobs, reduce inflation, and improve our ability to compete for international markets. At the same time, tax impediments to the achievement of an improved trade position must be identified and corrected.

##### *1. Taxation of Americans employed abroad*

The costs to U.S. firms of employing American workers overseas have risen dramatically in recent years, in large part because companies often must provide "tax equalization" programs for these employees. Rising tax costs have forced many U.S. employers to reduce the number of their American workers or to replace them with foreign nationals. This trend has serious adverse consequences for U.S. exports. American workers responsible for purchasing goods or services for their companies are more likely to specify U.S. products in fulfilling job requirements abroad than would their foreign counterparts. Increased tax costs hit particularly hard at service industries, one of our most rapidly growing areas of export trade. The products sold by these industries are heavily dependent upon technical knowhow and managerial expertise of U.S. employees who often have to live in a foreign location to provide the service. Hence, increased tax costs are particularly damaging to service industry competitiveness.

The Foreign Earned Income Act of 1978 amended section 911 of the Internal Revenue Code to permit qualifying taxpayers who reside in a "camp" located in a "hardship area" in a foreign country to elect to exclude from gross income up to \$20,000 of foreign earned income during the taxable year. The law also added section 913 to the Code, which allows a deduction to taxpayers employed abroad for qualified cost-of-living differentials, housing expenses, schooling expenses, home leave travel expenses, and "hardship deductions." These deductions under section 913 are not available to taxpayers who elect the section 911 exclusion.

With the enactment of the Foreign Earned Income Act of 1978, the U.S. Chamber was hopeful that U.S. taxpayers working overseas and their employers would be given some relief from what had become excessively burdensome U.S. taxes. This has not happened, even though, as reflected in the Act and its legislative history, Congress clearly intended to put U.S. workers abroad in a position comparable to Americans working in the United States and not at a disadvantage with other foreign workers.

Despite passage of the 1978 legislation, however, significant problems regarding the taxation of foreign earned income remain. The June 26, 1980, report of this Committee's East Asia Study Mission succinctly reflects this situation by stating "... the adverse trade impact of section 911 and 913 of the Internal Revenue Service Code has not been fully appreciated." We applaud and support this Committee's call for the "congressional tax committees to convene hearings on section 911 and 913, their impact on trade, their implementation by the IRS and proposed legislative remedies." We submitted testimony to the Subcommittee on Taxation and Debt Management of the Senate Finance Committee on June 26, 1980. The U.S. Chamber is eager to participate fully in this and all other congressional committees' efforts to promptly correct the serious deficiencies in the U.S. system of taxing our overseas workers.

##### *2. Domestic International Sales Corporation (DISC)*

Another aspect of U.S. tax law that is vital for promoting U.S. exports is the Domestic International Sales Corporation (DISC). Since its inception in 1971, the U.S. Chamber has supported the widest possible use of DISCs.

The DISC provisions contribute to the growth of domestic employment related to exporting. By setting up a DISC, U.S. exporters can defer taxes on certain amounts of export-related income. Many U.S. companies that now use the DISC mechanism have substantially increased their exports, thus creating U.S. jobs. Moreover, use of a DISC allows firms that are too small to operate through foreign subsidiaries to enter the export field. The tax deferral may not be large in many cases, but the cumulative benefit provides a substantial increase of working capital for further export development. On the whole, the DISC provisions have



encouraged exports, and DISC exports have generally grown at a faster rate than non-DISC exports.

### *3. Research and development*

It is often argued that because the United States is a leading exporter of technology and know-how, the adoption of tax measures specifically designed to promote research and development will result in substantial increases in U.S. exports. The U.S. Chamber believes that enlargement of research and development activity in the United States is a matter of prime national importance, and that government should take steps to encourage an increase in expenditures by businesses to this end. Existing tax impediments to R & D activity should be identified and corrected. The adoption of specific tax incentives for R & D should be carefully studied, however, to determine if such measures would provide the most efficient and equitable means to promote this activity. The improved investment climate in this country which would result from the adoption of tax measures to stimulate capital formation such as capital cost recovery and further cuts in corporate tax rates would go a long way toward promoting increased R & D activity and restoring America's ability to compete abroad.

### *E. Small business participation in exporting*

For the last few years, we have been hearing about those 20,000 plus small businesses in the United States with untapped export potential. While some progress has been made, there is still a great deal more to be done in "selling" the export possibilities and benefits to small and medium-size businesses. All of the finest export services and supporting trade legislation are worthless, if business interest in exports is lacking.

We understand that the Commerce Department is preparing a major advertising campaign to promote exporting, and the U.S. Chamber and other associations continue to encourage their members to become involved in trade. The concepts for small business involvement that are being promoted by the Chamber include the following:

- (1) A trading company is an ideal vehicle for small business with no trade experience to get its products into international commerce.
- (2) Webb-Pomerene associations allow for a pooling of resources and a sharing of risks for venturing into foreign markets.
- (3) The simplification of trade procedures so as to lessen high compliance costs.
- (4) "One-stop" export service centers in regional offices of appropriate federal agencies, providing both information and promotion, have obvious advantages to both exporters and potential entrants into international trade.

Other possibilities for encouraging small business participation in exporting include:

- (1) Eximbank financing programs for small and medium-size businesses to provide working capital, simplified credit approvals, and guarantees for export financing;
- (2) A reduction in the paperwork requirements for foreign transactions;
- (3) The extension of Small Business Administration assistance for small businessmen to U.S. citizens living and working abroad;
- (4) Improved DISC treatment for small businesses; and
- (5) A program to bring more foreign distributors and customers to the United States so as to establish direct personal contact with U.S. small businessmen in their own familiar industry trade shows.

### PRIVATE SECTOR EFFORTS TO EXPAND EXPORTS

A national export expansion policy involves more than the creation and direction of government programs to facilitate exports. It also requires the active support and commitment of the vast network of chambers of commerce, trade associations, and other membership organizations that serve business in this country.

It is not possible here to review the entire range of export services presently offered by private business organizations. Suffice it to say that the record is clear that they are generally of a very high order. As any member of congress knows, in his or her district there are local chambers of commerce, international trade centers, and other similar organizations that perform as clearing houses and catalysts for export development activity. One aspect of this role is the traditional relationship between U.S. Department of Commerce, field offices, and local chambers of commerce working together to develop business awareness of gov-

ernment export services. Another aspect concerns the array of purely private services provided by business organizations to facilitate the export activities of their members.

#### *Business-government cooperation*

The point we wish to emphasize is that government should utilize fully the resources of American business organizations in its programs to stimulate business interest in export activity. This is more a matter of emphasis and reinforcement than a call for any new initiatives, as the wide range of government export and development and promotion programs is already closely integrated with private sector organizations.

One example of effective collaboration is the export multiplier program. However, this program focuses more on export performance than on the education phase where there are relatively few effective vehicles for coordinating government and private efforts. For instance, there is at present no national advertising program designed to demonstrate the benefits of export business. The U.S. Department of Commerce has plans for just such a program. Among ways in which the private sector could play its part would be the widest possible dissemination of the messages as public service spots in the print and electronic media.

There are other government export programs requiring close private sector collaboration that would justify additional resources. For example, the Foreign Buyers Program is outstanding in concept as a practical means of facilitating export sales. However, budget considerations have cut this program to the bone.

Another excellent program that may fall short of its potential because of inadequate resources is the Tailored Export Marketing Plan (TEMP). For the first time, this program provides U.S. companies with access to the sort of individualized counsel that has previously been available only to foreign competitors. However, the full potential of this program is jeopardized by an insufficient allocation of resources.

#### *Export development unit*

The Chamber recognizes that it is one thing to indicate shortcomings in existing export programs but quite another to come up with the necessary means to achieve the desired results. With this in mind, the Chamber has been studying the feasibility of creating a specialized export promotion and development unit that would operate under Chamber auspices. This unit would be charged with maintaining private sector liaison with government export agencies, including the congress, and with organizing and managing complementary programs on behalf of business. For instance, the unit could determine how best to utilize existing business organization resources to maximize the effectiveness of the Foreign Buyer program—including the involvement of staff and financial resources, as appropriate. Another concern would be a contributory role in the Tailored Export Marketing Plan. The premise underlying the Chamber's consideration of the new unit is that a subject as important and complex as export development requires the imaginative, specialized, and energetic commitment of human and financial resources from the private sector to complement government efforts.

As stated, the proposed export promotion and development unit is presently in the formative stage. Member corporations are being consulted respecting its program of work and as to their willingness to pledge financial support. While it is too early to indicate the precise form of the final arrangement, the Chamber is confident that the unit will be organized, staffed and operating within the next few months.

#### CONCLUSION

There are a great many components that go into a national export policy. To day I have addressed some of the most pressing issues. In the future the U.S. Chamber will be speaking out on such other critical export-related areas as export controls for national security and foreign policy, agricultural exports, government organization, and the extraterritorial reach of domestic laws.

There is now an awareness of the gravity of the U.S. trade posture in today's world and the need for a national effort to turn it around. The debate has begun on the necessary action plan, and the proposed National Export Policy Act of 1980 provides an excellent vehicle and focal point for that discussion. Now we must all work together to identify and analyze the details of the problem areas and recommend and press for those actions necessary to restore the U.S. presence in the international economic order. By "we," I mean government, business, and labor.

The U.S. Chamber would like to see more efforts along the lines of the recent government mission headed by Deputy Secretary of Commerce Luther Hodges to South America to promote U.S. interests in the Yacyreta Hydroelectric Project. Because of this initiative, U.S. companies are still in the running for this project. If some of the business is awarded to U.S. companies, the bottom line is profits for U.S. firms, jobs for U.S. labor, and tax revenues for the government. With that kind of bottom line, shouldn't we all be pushing for a national export policy?

Senator BENTSEN. One thing I was pleased to hear you say was that you were working toward building a political constituency for exports where it isn't just an optional thing for a business to do. It seems to me that there ought to be a commonality of interest between labor and business on exports. That's the only way you're going to keep jobs at home. Otherwise, we find ourselves in the position of being a colony that exports raw materials to be processed someplace else.

In the series of hearings that the Joint Economic Committee held in the Far East, we dealt with a type of witness that we don't normally see here. We dealt with the American representatives of business abroad. Some of them had lived there 10 or 20 years trying to sell American products. They complained about their home offices almost as much as they complained about our Government and its disincentives. Their complaints reached a point where I told some of them they ought to be wearing ski masks as they testified. They talked about the fact that, in attempting to penetrate a foreign market, American management at home too often would not forgo profits for a couple years until they developed name identification in their service centers, as the Japanese have done here. American management has also often been slow to adapt a product to fit the foreign market.

They gave us one example that I thought was rather interesting. They said you see Mercedes cars in Japan but you don't see any Cadillacs, and they tell you why.

They said any fellow who can afford to buy a Cadillac or a Mercedes in Japan also has a driver, and they said the best seat in the Cadillac is the driver's seat, but the Mercedes turned around and made the best seat in the Mercedes they sold abroad the back seat. This is the kind of example we run into.

The President of South Korea told me they were trying to buy products from us. They asked for a bid on 250 cement-mixing trucks but they didn't get one bid from the United States. After I returned from the Far East, I went to the Commerce Department and finally got one bid that turned out to be complementary. The Japanese came in and took the job.

But there's plenty enough blaming to go around—the Government and its disincentives, and American management having such a vast market at home they didn't think they had to worry too much. There's notably great exceptions in American management who have done a marvelous job in exports.

So I'm just delighted that you're working to try to develop that kind of constituency and make it so much easier to implement and pass this kind of legislation.

Mr. Verity, you wear two hats. You're also president of a major U.S. steel company. What do you think we need to do there? There's

an industry that's having a problem and I hear some of these people who say, "Well, what we ought to promote is a new, exciting industry, while some of these old industries ought to just go down the tube." I think that's insane when you talk about something like steel that's so basic to the largest economy in the world. Where would we be in defense, in automobiles, and many of the other things? What can we do about the steel industry other than try to be protective, which doesn't seem to me to be a long-term solution?

Mr. VERITY. Well, I would agree with you, Mr. Chairman. I don't think that protection is going to do anything for our country and our big problem of international trade. The steel industry, because of many forces but particularly because of the way we are taxed and the disincentives that have been built into noninvestment, we find that we have not invested in new technology and modernized to the degree that we might. Actually, the U.S. steel industry is more competitive than is presented. We can compete and produce the steel cheaper than the Europeans. We are not competitive with the Japanese in third country markets, but we are competitive with the Japanese in this country.

What we really need to do for the steel industry is to take a look at our tax laws to see if there isn't a way to provide incentives for investment through such things as capital cost recovery and investment tax credits, energy credits, as a means of getting some money up front so the steel companies are able to make the investments that they want to make.

The other thing that I think we do have to take a look at is that there are more and more steel companies around the world that are either controlled by their governments or owned by their governments and often the objective of those companies is not profit but production, and I do think that this Government and the industry should work together and try to reinstitute a trigger price mechanism that will keep foreign steel companies from putting steel in here below their costs which is against the rules of GATT and against our own laws.

But fundamentally, I think that the plight of the steel industry is much like the plight of exports. We just have not done what Americans have done historically in searching out markets, trying to dominate that market, being the yankee trader of old. I'm very pleased, Mr. Chairman, to tell you that around this country wherever I go there is a growing interest in export trade. In Omaha, Nebr. last week we had several trade unions and union members there for the purpose of seeing how they could work with the Chamber on exports because they now realize that exports do create jobs. I think we have an attitudinal problem to change. I think we do have to encourage small business to realize, once we do get a trading company bill approved which I hope we will, that they have an opportunity to trade and we've got to get the big businesses realizing there's a big market out there which we found from the American representatives on your trip to the Far East that we are just not in it and we should be.

Senator BENTSEN. We'll be asking you some other questions, Mr. Verity.

Mr. Aho, if you would proceed with your testimony now.

**STATEMENT OF MICHAEL AHO, DIRECTOR, OFFICE OF FOREIGN  
ECONOMIC RESEARCH, BUREAU OF INTERNATIONAL LABOR  
AFFAIRS, DEPARTMENT OF LABOR**

Mr. AHO. Mr. Chairman and members of the committee, I appreciate the opportunity to be here today. The Joint Economic Committee in the past has done an excellent job in emphasizing the factors that contribute to U.S. international competitiveness and also to those long-run factors that insure larger real income for all members of the United States in the future.

As background for the administration's review of international competitiveness which was mandated by the Trade Agreements Act of 1979, my office prepared five background research documents which will eventually be appended to the review when it's released. I have submitted today, for the record, my prepared statement, a short paper which summarizes some of our research, and the summaries of five papers.

Senator BENTSEN. Your prepared statement, together with the papers referred to, will be printed in the hearing record at the end of your testimony.

Mr. AHO. Today I would like to talk about the research results we obtained for the administration's review.

We find unmistakably that the United States has suffered a deterioration in its international competitive position but also in its domestic competitiveness relative to firms from other countries. This conclusion comes after about 8 months of research in which we looked at a cross-section of 34 countries for over 100 manufacturing commodities.

The basic conclusion that comes out of the research is that this is a long-term deterioration in the U.S. competitive position as a result of faster investment growth and increased research and development activity in other countries.

To some degree this is to be expected since the United States emerged from World War II with its industrial base intact relative to the rest of the world. But our major competitors—Japan, Germany and the industrial countries—have largely rebuilt and yet even through the 1970's we see a deterioration in U.S. export competitiveness.

Every day we read about increased competition in the traditional industries such as steel and automobiles that have caused adjustment problems for firms, communities and workers, but we are beginning to see increased competition in the higher technology industries in which the United States has traditionally had a strong competitive advantage. This deterioration in higher technology products was observed relative to our major competitors overseas, primarily Japan, Germany and France.

The Labor Department is quite concerned about the deterioration in the U.S. trade performance because changes in trade are a leading indicator of changes in the competitiveness of our domestic industrial base. The deterioration that we have seen in recent years and the leading indicators that we are seeing as perhaps an early warning in the higher technology industries, we believe are cause for concern.

Added to this cause for concern are the deepseated trends, the underlying investment pattern in the United States, the investment

growth in the United States being smaller than overseas, and the decline in the U.S. research and development activity both relative to our past effort and relative to our major competitors overseas.

Our research was done at both a highly aggregate level and a highly disaggregate level. As the first step in the research, we identified the key commodities in which the United States has traditionally been a strong exporter. Those commodities were identified using a number of different criteria—by the largest export earners, by net export earners, or in particular we focused on the higher technology industries in which the United States has had a strong competitive advantage in the past.

After identifying the strong export earners, we then examined their trade performance over the last two decades, also using a number of different indicators. I stress that a number of indicators had to be used because competitiveness is a hard thing to sink your teeth into or to grab onto. Trade data can be analyzed in any number of ways and as I will show in a few minutes there are some recent positive developments as well as negative developments.

What we tried to do was to examine in every possible way to see if a consistent story was being told on all indicators for trade competitiveness. Our results provide statistical data for many of the assertions made in the popular press and, actually, our results provide indepth support for the remarks you made in your opening statement.

We found the deterioration suffered by the United States in its trade position, as I said, has continued from 1960 throughout the 1970's into the 1980's, and one of the principal sources of the increased competition is from Japan. Mr. Rapp may have more to say on Japan a little bit later and I would defer to him on that.

Let me first discuss some of the positive developments that we have seen recently.

The U.S. total export volume increased during the 1970's at the same rate, 80 percent, as our major competitors overseas, the seven major industrial countries. Manufactures, however, increased at a slower rate, about 79 percent over the 1970's, compared with an increase in volume overseas of 85 percent. Apparently, agriculture is taking up the slack. However, compared to some of our major competitors, notably Japan, Italy, and France, our export volume growth has been much smaller.

In 1979, we had a record trade surplus in capital goods and a record trade surplus in agriculture goods.

Also, in 1979, as a result of the delayed action to the exchange rate depreciations in 1978 and 1977, U.S. manufacturing exports increased by 23 percent compared with our competitors whose exports only increased by 17 percent.

But among negative developments, or as an economist, I might say on the other hand, since there's usually an "on the one hand," we have in the chart—

Senator BENTSEN. That reminds me of Harry Truman's remark that what this country needs is a good one-armed economist.

Mr. AHO. I contemplated telling the joke about the President of a developing country who requested that AID send over a one-armed economist in their next AID mission, but I decided not to tell it be-

cause I tried to give this speech in the car this morning and it took me about 17 minutes.

On net trade as we have on your chart up there, five out of seven major industrial countries had larger trade surpluses in manufacturing than the United States in 1979. We maintained a bilateral trade surplus with manufactures only with Canada.

But not just on net trade—if we look at other indicators of competitiveness, export shares and the change in the import penetration ratio over time at an aggregate and disaggregate level, we see reason for concern about deterioration in competitiveness; 71 percent of the commodities that we studied—there were 102 in all—showed a trend decline in U.S. export shares from the 1960's to the 1970's. This compared with only 26 percent for Japan and 24 percent for West Germany.

The increased competition in the domestic market was even present in some of our higher technology and more important export commodities such as inorganic chemicals and electrical power machinery.

The erosion in our competitive position, though, that I found most telling and most compelling was in third country market areas where all major exporters go in and compete on a common basis. They all face the same trade barriers except for whatever local firms may be there. During the 1960's, of the 17 export commodities of the United States which accounted for the most export earnings, 14 showed deterioration relative to Japan, Germany, the United Kingdom, and France. All 17 commodities showed a deterioration relative to these countries between 1970 and 1977.

The research also focused on the trade performance in high technology products which I said have traditionally been our source of strength. Senator, you mentioned in your opening statement that the United States has done very well and continues to do well in high technology products. In fact, we have maintained a trade surplus in high technology products throughout the postwar period and that remains our strong suit. But now other countries, notably Japan and Germany, have begun to surpass us in the export of high technology products, and our trade surplus in high technology products has been fairly flat up until last year. Last year there was quite an increase in plastics and some of the other commodities which traditionally have been our strength.

Our findings indicate that the United States still has a comparative advantage in technology intensive products. We have one of the largest export shares and we have the greatest technological content in our exports, but there are several indications that our dominance in these products has eroded over time.

This is troublesome because the higher technology industries are the industries in which we find our greatest productivity growth and those are the sectors that contribute the most to holding down inflation over time.

The indications of erosion are several. One, the U.S. export share in high technology products has fallen behind Germany and now it's just about the same as Japan's. The decline in U.S. share and the improved performance by Japan and Germany were present throughout the entire period even after the exchange rate realignments began in 1971. Normally, we would expect that price changes would have led to the

U.S. improving or at least stabilizing its share. In fact, we find the opposite.

As I said, many high technology products have had significant increases in their penetration ratio.

Finally, the United States is losing out to competitors in traditionally strong products in the Third World countries. It's not in the testimony, but in the developing countries, in 1962 we had 46 percent of the market in high technology products. That share declined to 31 percent in 1970 and by 1977 we only obtained 25 percent of the market. Japan, on the other hand, increased its market share in the developing countries in these higher technology products from 6 percent in 1962 to 13 percent in 1970 and to 22 percent, just behind us, in 1977.

As you have probably gathered, the most dramatic change in high-technology trade has been for the Japanese. Japan now has the largest trade surplus and it has risen to second behind only the United States as an exporter of high-technology products. The rapid growth of Japanese exports in technology intensive goods and the growing share of Japan's exports in our traditional markets is an indication that Japan has joined us—and we read about this every day in the press—as a major competitor in high-technology products. I speculate that this competition will continue and increase in the 1980's. As you probably know, Senator, Japan's industrial development plan for the 1980's is to emphasize the higher technology areas as their next source of industrial strength.

What are the factors that are responsible for this decline in U.S. international competitiveness?

I suggested before that a consistent thread running through our analysis was the smaller role the United States is playing in the world economy—the slower rate of investment growth in the United States, and the fact that the United States devotes a smaller proportion of its GNP to investment than its major competitors. I suggest also that the decline in U.S. research and development activity, both relative to our past effort and relative to our competitors overseas has contributed to our decline in trade performance. The bottom line on all this, and these are figures that you all know so I won't go through them—is that our productivity growth in manufacturing has been the smallest among the major countries except for Great Britain.

One of the questions in your letter to me concerning my testimony, was what can we learn from our foreign competitors? I suggest we not only have something to learn from Japan which has been successful, but something to learn from the United Kingdom on the other side.

In 1963, the United States had 42 percent of the world's capital stock. By 1975, the most recent data that are available, the U.S. share had declined to 33 percent. Japan's share doubled from 7 percent to 15 percent over that period of time.

Japan's investment to GNP ratio is much higher than the United States. In fact, if you were to look at plant and equipment, Japan invested as much in 1978 in plant and equipment as the United States did, and yet their population is only half ours.

The slower growth of the United States and the smaller allocation to investment has led to this smaller relative capital stock in the United States.



I want again to stress the long-run factors which are a cause for concern, in addition to some shorter term and policy considerations that Mr. Verity raised, because of the continuing trends. We continue to invest a smaller proportion of our GNP than our major competitors. We continue to decline in our research and development effort relative to our competitors. Should these declines continue into the 1980's, and we undertake less investment and research and development than our competitors, we can only expect the decline in our trade performance will continue.

Having said those things, let me quickly raise some of the other policy issues that are in my testimony.

On industrial policy, to the extent that our major competitors adopt industrial policies which are successful, we tend to be faced with the results of their industrial policy. If everybody else had a successful industrial policy, the United States would be the residual country. Although I'm not claiming that they are all necessarily going to be successful, and the British and French experience in industrial policy gives us reason to pause, I think that we have to be able to respond to the challenge from overseas, particularly the industrial targeting that is going on now in the high-technology industries which have always been our source of strength.

But if the United States were to emphasize more our higher technology industries or if we were to adopt measures to expand our export performance, we have to recognize the adjustment consequences of such policies.

In order to export, the Nation has to import. The winners and losers as a result of changes in trade are systematically determined. The winners are in the high-technology industries, and include the better educated and the higher skilled. The losers in the import competing industries tend to be, on average, less skilled and less educated and are among those who have been traditionally disadvantaged in terms of their labor market experience. They are also the least occupationally mobile.

In having a conversation with someone a couple of weeks ago in which we talked about where import competition is greatest in the United States today, he pointed out that the steel industry and the automobile industry employ many of our higher paid workers. But take the automobile industry as an example. In the 1960's we used to talk about Appalachia as one of the areas where we had severe poverty problems. We suggested that if the United States had longer term economic growth, we might be able to bring those people into the growth and development process in the United States. What happened? Many of those people that migrated from Appalachia went to Detroit and what are the consequences for them now? They are again in vulnerable occupations and are suffering the consequences of the downturn in the domestic automobile industry. The Department of Labor is currently designing a pilot project for providing adjustment services to workers dislocated in the automotive industry.

To go on, just two last things—one is the international trade agreements which were negotiated in the Multilateral Trade Negotiations. Because the United States has traditionally had a comparative advantage in high-technology products, we have to insure that our producers have market access overseas. The Government often serves as a

procurement agent in telecommunications or in information processing and we must be vigilant in our administration and implementation of those codes in order to be certain that U.S. producers have access to foreign markets.

As an aside, one of the ways we could get increased productivity growth in the United States is to transfer workers from less productive to more productive occupations. But what we are going to have to do is to insure that there is an effective demand overseas for U.S. products that are produced in the higher productivity sectors. In this regard, my office is cosponsoring a project with the Office of the U.S. Trade Representative to look at negotiating strategies in high technology products.

Finally, labor, management and government cooperation. Japan and Germany have been the most successful in terms of their trade performance over the last 20 years and it is those countries where there is greater cooperation between labor and management. The greater cooperation observed in those countries could be something about which we ourselves could learn. If the United States could get more joint effort at cooperation between labor and management and in some cases Government, we might be able to increase productivity. We also may be able to help the adaption of new production processes and to smooth the adjustment to economic change.

The productivity side is a simple one. For example, for those of us who are supervisors, one way of encouraging more productivity in the office is to have a progressive personnel and human resource development program to upgrade our people over time. I think that with cooperation, if we could get it between labor and management, the country may be able to improve productivity growth and competitiveness.

Adjustment to economic change is also very important. To the extent workers view their jobs as a right, as something they possess, they are going to try to thwart economic change if they think they are going to lose that right. Greater cooperation on adjustment issues caused by economic changes could help in consensus building.

As a first step in this regard, the tripartite cooperation which has been begun in the steel industry, and also begun as part of the President's program in the automobile industry, is concentrating labor, management, and Government efforts at programs for community adjustment, for improving productivity and for the industrial modernization that we sorely need.

Let me conclude by saying that comparative and competitive advantage do not remain constant. To the extent that the United States continues to undertake less investment and less R. & D. than our competitors, we stand to suffer a long-run deterioration in our competitive position.

The depreciation of the dollar has helped the U.S. competitiveness to some degree, but that entails a real income loss for us at home. We can be competitive but at what level of the exchange rate will we be competitive?

What we have to do to prevent a decline in our long-run competitive position in manufacturing and in general is to devote more resources to investment and to research and development. These factors are important not only for helping our long-run competitive position, but

also important for enabling us to achieve greater productivity growth which would give all Americans real income increases in the future.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Aho, together with the papers referred to, follows:]

#### PREPARED STATEMENT OF MICHAEL AHO

Mr. Chairman and Members of the Committee, I appreciate the opportunity to appear here today to discuss a subject of vital concern: the international competitiveness of the United States. You and the other members of the Committee are to be complimented on your excellent work investigating factors which contribute to the competitiveness and long-run health of the U.S. economy.

As background for the Administration's review of U.S. competitiveness mandated by section 1110(b) of the Trade Agreements Act of 1979, my office prepared five background analyses on different aspects of U.S. international competitiveness. The Administration's report will be released shortly. Today, I would like to discuss the results of our research studies. I am submitting the executive summaries of the five studies and a short paper for the record.

Over the past two decades, the United States has suffered an erosion in its competitive position in world markets and in the domestic market. This conclusion is based upon extensive empirical research which analyzed the trade of 34 countries in over 100 commodities. The increased international competition facing U.S. producers is mainly the result of changing world resource supplies and technological capabilities. Because of higher rates of growth in investment and expanded research activity in other countries, the United States has experienced a relative decline in its trade performance over the past two decades.

To some degree this is to be expected because the United States emerged from World War II with its industrial base intact, giving it a unique position in the world economy. That unique position has disappeared with the more rapid growth of investment, skilled labor, and most recently, research and development efforts by other countries. This rapid growth has narrowed the range of products in which the United States has a decided competitive advantage.

Every day we read about increased competition in traditional industries like steel and autos that has caused adjustment problems for workers, firms and their communities as some plants have been forced to close down or reduce production as a result of increased import competition. At the same time the United States is also experiencing increasing competition in high technology industries like aircraft and computers which have historically been our strength. Furthermore, it is likely that this competition will continue and increase in the 1980's because of the higher rates of investment and the increased technical effort by our major competitors.

We at the Labor Department are very concerned about the long-run competitive structure of the U.S. economy. The decline in U.S. trade performance increases our concern about the competitive position of U.S. industry because changes in trade performance are a leading indicator of changes in the competitiveness of our domestic economic base.

In conducting our research we examined, at both an aggregate and a highly detailed commodity level, the competitiveness of U.S. producers in world markets. We examined both the short-term, and the more subtle long-term, changes in this competitiveness. A variety of measures and indicators were used to examine and assess changes in competitiveness and the structure of trade.

Our results provide statistical support for many of the assertions made in the popular press that the United States has suffered a deterioration in its competitive position and that Japan is one of the principal sources of increased competition in many key U.S. export products. However, like most issues, there is evidence showing positive as well as negative developments. Therefore, let me present some evidence on both sides.

Among the positive developments in the international competitive position of the United States are the following:

Over the decade of the 1970's the volume of total U.S. exports increased by the same amount (80 percent) as the average of the other seven major industrial countries. Manufacturing exports expanded by 79 percent compared to 85 percent for the other major industrial countries.

Capital goods showed a record trade surplus of \$32.6 billion in 1979.

Agricultural goods also had a record trade surplus of \$18 billion in 1979.

Manufacturing exports increased by 23 percent in 1979, compared to 17 percent for our major competitors.

Among the negative developments:

*Net trade.* The United States had a trade balance deficit for 6 years during the 1970's and a deficit in manufacturing for 3 years. On a disaggregated commodity level, net trade is theoretically the best indicator of competitiveness. Of the major export categories, the United States has gone from being a net exporter to a net importer in several important categories including automobiles, telecommunications apparatus and inorganic chemicals.

In 1979, five of the seven major industrial countries had larger trade surpluses in manufacturing than the United States. Among the major industrial countries, we maintain a bilateral trade surplus in manufactures only with Canada. The bilateral deficits in manufactures trade are largest with Japan (-\$17 billion) and Germany (-\$5 billion).

*Loss of export shares.* Although trade is becoming increasingly important to the U.S. economy, the United States is playing a relatively smaller role in the world economy. Our analysis of U.S. export market shares for 102 manufactured commodities indicated that since the 1960's, the United States had trend declines in 71 percent of the commodities compared to 26 percent for Japan and 24 percent for West Germany. Most of the U.S. declines occurred in the 1960's with the 1970's representing mostly a period of stabilization but at reduced levels.

Among the top five U.S. manufacturing export earners (road motor vehicles, nonelectrical machinery, aircraft, other electrical machinery, and office machines (computers)), only aircraft had an increase in its export market share. In many of the traditionally strong U.S. exports, the decline in share has been greater than the decline in the share of overall manufacturing.

*Increased competition from foreign producers in the domestic market.* Import penetration ratios have increased in many of the important manufacturing sectors, including inorganic chemicals, electric power machinery, power generating machinery and automobiles.

*Erosion of our competitive position in formerly strong export commodities in third market areas.* A comparison of U.S. export performance with that of four major competitors (France, Germany, Japan and the United Kingdom) in common third markets showed that of the top 17 U.S. export commodities, 14 experienced share losses in the world market between 1962 and 1969, and all 17 showed losses to these competitors between 1970 and 1977.

The research also focused upon trade performance in high technology products which, along with certain agricultural products, have traditionally been a principal source of strength in the U.S. trade balance. High technology products include aircraft, computers, and many chemical and machinery products.

Our findings indicated that the United States still has a comparative advantage in technology-intensive products in world markets. In particular, when compared to its major competitors, the United States still has: (1) a greater concentration of high-technology exports; (2) one of the largest export market shares in high-technology products; (3) the greatest technological content in its exports, and, thus, more high-technology products among the products which characterize its comparative advantage.

There are several indications, however, that U.S. dominance in world trade of high-technology products is being eroded. This is troublesome because these are the sectors which contribute the most to productivity growth and holding down inflation. The indications of this erosion are:

The U.S. export market share in technology-intensive commodities has fallen over time. In 1977, the U.S. share fell to second behind Germany, whose share had remained roughly constant since the early 1960s. During that period Japan's share quadrupled to a point where it was just behind the United States and Germany.

The decline in the U.S. share and the improved performance by Japan and Germany were present throughout the entire period even after exchange rate realignments began in 1971.

Many high technology products show continuing increases in their import penetration ratio that are more rapid than for manufacturing as a whole. Several of the technology-intensive products had such a rapid growth of imports relative to exports that the United States became a net importer of these products.

The United States is losing out to competitors in some of its traditionally strong products in third market areas.

Among the major U.S. competitors, Japan exhibits the most dramatic change in trade performance in technology-intensive commodities. Between 1962 and 1977, the share of technology-intensive products in total Japanese exports and the technological content of Japan's exports more than doubled. Japan now has the largest trade surplus in technology-intensive products. In the 1960's Japan's trade performance in high technology products ranked low among the Organization for Economic Cooperation and Development (OECD) countries. Since then, Japan has risen to second, behind only the United States as an exporter of technology-intensive products. Finally, Japan has begun to compete successfully in technology-intensive products with the United States and other major countries in third market areas, where all competitors face the same market conditions.

The rapid growth of Japanese exports of technology-intensive goods, and the growing share of Japan's exports to markets that were traditionally dominated by U.S. producers, demonstrate that Japanese competitiveness in technology-intensive goods is increasing. Consequently, Japan has joined the United States in having a competitive advantage in technology-intensive products, and this implies that competition between the two countries in these products will increase in the future.

#### WHAT FACTORS ARE RESPONSIBLE FOR THIS DECLINE IN U.S. INTERNATIONAL COMPETITIVENESS?

The factors which can affect the international competitive position are manifold. They include: (1) the longer term factors which affect cost, investment in newer capital equipment and innovation and technical change; (2) input costs, including the effects of taxation policy and energy costs; (3) labor-management relations; (4) policies of other nations such as trade barriers and industrial policy; (5) a number of largely nonquantifiable factors related to the product, including quality, delivery time, servicing; (6) managerial initiative and objectives, including entrepreneurial effort in developing new markets, devotion to quality control, etc.; (7) finally, U.S. export promotion policies as well as policies which inhibit exports.

A consistent explanation emerging from our analysis is that the decline in U.S. trade performance since the early 1960's is the result of changing world resource supplies and technological capabilities. These changes are the result of differences in the rates of growth across countries of net investment in equipment and research activity, and the acquisition of skills through education and other training.

Capital available per worker in the United States grew at an annual rate of 1.7 percent between 1963 and 1975, well below that of other developed countries and many of the major developing countries. The percentage of skilled workers in the U.S. labor force grew at an annual rate of 1.3 percent between 1963 and 1975, also below that of most countries.

This relatively slower growth in U.S. capital and skilled labor, along with differences in the growth of these resources in other countries, has altered the distribution of resources among countries and has thereby expanded the capabilities of many countries to supply products to the world market.

The U.S. share of world capital fell from 42 percent in 1963 to 33 percent in 1975. By comparison, Japan's share of world capital increased twofold over the same period, from 7 to 15 percent. The U.S. world share of skilled labor fell from 29 percent to 26 percent; its world share of arable land, however, increased from 27 to 29 percent.

The decline in the U.S. share of the world's capital stock is the result of slower real growth in the United States combined with the fact that the United States allocates a smaller proportion of its national income to investment than its major competitors. In 1978, the United States allocated only 7.3 percent of its gross national product (GNP) to gross fixed capital formation in machinery and equipment whereas Japan allocated 10.9 percent, Germany 8.9 percent, France 9.1 percent, and the United Kingdom 9.2 percent. In terms of total gross fixed capital formation, the United States allocated 18.1 percent, Japan 30.2 percent, Germany 21.5 percent, France 21.5 percent, and the United Kingdom 18.1 percent.

The share of U.S. output devoted to research and development declined from 2.97 percent to 2.27 percent between 1964 and 1977. Japan's share rose from 1.48 to 1.94 percent; Germany's rose from 1.57 to 2.26 percent.

Research and development and investment in skills and capital equipment are factors which affect the long-run competitive position of a country and they are also the major sources of productivity growth. In recent years, U.S. productivity growth has slowed in manufacturing and it lags behind that of all of our major foreign competitors, except the United Kingdom. Over the last decade, manufacturing productivity in the United States increased by an average of 2.5 percent per year.

In Japan, the average increase was 5 percent, in West Germany, 5.5 percent, in France, 4.5 percent, and in Canada, 4 percent.

This more rapid growth of capital, skilled labor, and technical resources by other countries relative to the United States has intensified competition in traditionally strong U.S. export products and has narrowed the range of products in which the United States has a competitive advantage. This competition will continue and increase in the 1980's because the United States continues to lag behind other countries in net real investment growth and because of the relative decline in our research and development effort.

With these results in mind, let me raise a few policy issues.

### *Industrial policy*

The United States does not have an explicit industrial policy, but to the extent that our major competitors adopt industrial policies, and target their industrial development, we are faced with the results of their industrial policy. For example, the focus of Japan's industrial strategy for the 1980's is to develop high technology industries as their next source of industrial strength. If this industrial targeting is successful, then the competition from Japan we are currently experiencing will increase. The semiconductor industry has already become a source of some concern.

It is imperative that our policies be directed toward enhancing the competitiveness and flexibility of U.S. industry so that we can respond to this challenge. Enhancing the competitiveness of high technology, export-oriented firms will increase the demand for higher skilled and more productive workers. But we cannot overlook the adjustment problems created by the internationalization of our economy.

### *Adjustment problems*

In order to export, the Nation has to import. If policies were to be adopted to restructure industry and to encourage the exports of high technology products, we need to recognize and deal with the adjustment problems created by such a policy. The workers in more traditional, import-competing industries are on average less skilled, less educated, lower paid, older and more likely to be female or members of minority groups. (See table 1). In short, those workers who would have to bear the brunt of the adjustment burden are least able to afford it. They are also the least occupationally mobile. This contrasts sharply with the higher skilled and better educated workers needed in the higher technology industries and suggests that training and adjustment programs may be necessary to facilitate the transfer of displaced workers. More should be done to retrain and to help these workers to adapt their skills to new occupations in other industries. The Department of Labor is presently designing a pilot project to determine the feasibility of providing readjustment to displaced workers.

### *International trade agreements*

The nontariff barrier codes, particularly on government procurement and subsidies, which were agreed to during the Multilateral Trade Negotiations, need to be implemented and the ensuing developments closely monitored. In industries such as telecommunications and information processing, the governments in other countries often serve as the purchasing agent. Since the United States has traditionally had a competitive advantage in these industries, we must ensure that U.S. firms have access to foreign markets on an equal footing with local competitors in these markets. There are many potential problems in-

volved with trade in higher technology products which may require new negotiations and new negotiating strategies. In order to learn more about the problems, the Department of Labor is cosponsoring a research project with the Office of the U.S. Trade Representative to examine the potential for negotiations.

*Labor, management and government cooperation*

Some influences on the competitive position of the United States lie outside the immediate realm of policy. One of these areas is labor-management relations. Differences among nations in the degree to which labor and management cooperate with one another can have an effect on the international competitiveness of their firms and industries. This seems to be the case in Japan and Germany, which have had the best trade performance in recent years and where labor and management cooperate closely with one another.

Close cooperation between labor and management can allow them to address mutual problems which interfere with productivity growth. The United States should encourage joint efforts on the part of labor and management to improve productivity which in turn can have a direct effect on U.S. competitiveness in world markets. Joint efforts could also help to smooth the process of adjustment to economic change.

An effort in tripartite cooperation among labor, management and Government has been begun in the steel industry with the formation of Steel Tripartite Advisory Committee. The Committee is concentrating its efforts on community adjustment, productivity improvement and industrial modernization. A similar tripartite effort is included as part of the President's economic program for the automobile industry. As these efforts proceed, they should provide the experience needed to assess the applicability of cooperative approaches for U.S. industry. In order to obtain a more in-depth look at labor management relations and adjustment policies in other countries, the Department of Labor is cooperating with the Japanese Ministry of Labor on a research project which involves cross-national comparisons and on-site visits.

Let me conclude by observing that competitive advantage does not remain constant. Research and development and investment in capital equipment and labor skills are key factors which affect the long-run competitive position of a country and they are also the major sources of productivity growth. To the extent the United States undertakes less real investment and devotes less resources to research and development than its major competitors, then the long run international competitiveness of U.S. industry will be reduced. Over time, larger capital expenditures overseas in newer facilities will enhance the competitiveness of foreign firms. Increased research and development will enable them to develop newer products and processes with which U.S. firms will have to compete. Although depreciation of the dollar will make U.S. products look more attractive in world markets, this will reduce our real income and overall welfare at home. Not doing enough to lower costs and develop newer, higher quality products may lead to a long-run structural decline in the U.S. competitive position in manufacturers and even in high-technology manufactures.

The United States needs to encourage investment and research to prevent such a decline. Expanded investment and innovative activity would not only affect U.S. long-run competitive advantage, but would also contribute to the productivity growth which is necessary for the Nation to enjoy real income gains in the future.

Mr. Chairman, this concludes my prepared statement. If the Committee has any questions, I would be happy to answer them.

TABLE 1.—CHARACTERISTICS OF THE INDUSTRIES IN WHICH TRADE HAD THE LARGEST POSITIVE AND NEGATIVE IMPACT UPON JOB OPPORTUNITIES, 1964-75

	Average of the 20 industries in which trade had the most favorable impact on job opportunities <sup>2</sup>	Overall manufacturing average	Average of the 20 industries in which trade had the least favorable impact on job opportunities
<b>Demographic characteristics of the labor force (percentage):<sup>1</sup></b>			
Female.....	21.5 ( 23.2 )	29.4	41.1
Minority.....	7.4 ( 6.0 )	10.1	11.5
Under 25 yrs old.....	15.4 ( 15.2 )	16.4	15.8
Over 50 yrs old.....	24.4 ( 23.8 )	26.5	28.0
Family income below the poverty level.....	5.8 ( 4.3 )	7.0	9.8
Annual earnings under \$10,000.....	72.1 ( 70.0 )	77.4	81.7
Annual earnings under \$12,000.....	83.5 ( 82.2 )	87.2	89.7
High school education (4 yrs).....	39.1 ( 40.8 )	36.6	34.0
College education (4 yrs).....	6.9 ( 7.6 )	5.1	3.1
<b>Occupational breakdowns and industry characteristics:</b>			
Unionized workers as a percentage of the labor force <sup>3</sup> .....	40.0 ( 38.0 )	49.0	51.3
Skill measured as a percentage of the average wage in manufacturing (1973) <sup>4</sup> .....	104.0 (105.2 )	100.0	97.8
Skilled workers as a percentage of the labor force <sup>5</sup> .....	55.8 ( 59.2 )	50.0	38.8
White collar workers as a percentage of the labor force <sup>6</sup> .....	36.3 ( 39.4 )	30.3	21.1
Technical intensity (scientists and engineers as a percentage of the labor force) <sup>7</sup> .....	6.87 ( 7.76 )	3.20	2.29
Technical intensity (R. & D. as a percentage of sales) <sup>8</sup> .....	5.90 ( 6.58 )	2.36	1.39
Foreign direct investment proxy (foreign dividends plus tax credits as a percentage of firms assets) <sup>9</sup> .....	.53 ( .59 )	.34 median	.52

<sup>1</sup> Source: Census of Population, 1970, Subject Reports: Industrial Characteristics, U.S. Department of Commerce, 1972, (Washington, D.C.: U.S. Government Printing Office).

<sup>2</sup> The weighted average in parenthesis is calculated by excluding veneer and plywood; sawmills and planing mills; and logging. These industries should be considered separately due to their relatively high natural resource content and geographic concentration of production.

<sup>3</sup> Source: Freeman, Richard and James Medoff, "New Estimates of Private Sector Unionism in the United States," Industrial and Labor Relations Review, vol. 32, No. 2, (January 1979).

<sup>4</sup> Source: Employment and Earnings, U.S. Department of Labor. Index is the average hourly wage in the industry divided by the average hourly wage in manufacturing.

<sup>5</sup> Source: Census of Population, 1970, Subject Reports: Occupation by Industry, U.S. Department of Commerce, 1973, (Washington, D.C.: U.S. Government Printing Office). Skilled workers are defined to include professionals, managers, sales, clerical, and craftsmen.

<sup>6</sup> Source: Same as 4. White collar workers include all defined as skilled except craftsmen.

<sup>7</sup> Source: C. F. Bergsten, T. Horst and T. Moran, American Multinationals and American Interests, (Brookings Institution: Washington, D.C.) 1978, table 3-2.

<sup>8</sup> Source: R. Kelly, "The Impact of Technological Innovation on International Trade Patterns," Staff Economist Report, ER-24, Department of Commerce (December 1977).

<sup>9</sup> Source: Bergsten, Hoost and Moran, table 3-2.

Source: C. M. Aho and J. Orr, "International Trade and Domestic Employment: Characteristics of Workers in Trade-Sensitive Industries," Economic Discussion Paper 2, Office of Foreign Economic Research, Bureau of International Labor Affairs, Department of Labor, April 1980.



**U.S. TRADE PERFORMANCE: THE ROLE OF CHANGES IN RESOURCE ENDOWMENTS  
AND CHANGES IN TECHNOLOGY\***

There is no doubt that the United States has declined as a dominant force in world trade. The U.S. share of manufactures exports has declined from over 25 percent in the early 1960's to 15.5 percent in 1979. This note discusses reasons for the decline in the level of the U.S. share and also some of the relative changes that have occurred.<sup>1</sup> It also explains some of the reasons for the increased international competition facing U.S. industries.

A principal reason for the reduced dominance of the United States in world trade is the more rapid accumulation of capital and skilled labor abroad. Between 1963 and 1975, the capital available per worker in the United States increased by 1.7 percent per year whereas the percentage of highly-skilled labor in the work force increased by 1.3 percent per year. In contrast, capital per worker in Japan increased by 10.1 percent per year while the percentage of skilled workers in Japan's labor force increased by 3.4 percent per year. In fact, the growth in U.S. capital per worker was the lowest among the developed countries as well as many of the developing countries. This was also true, for the most part, of the growth in the percentage of skilled workers in the U.S. labor force.

The relatively slower growth of the U.S. capital stock could reflect both the slower real growth of U.S. GNP and the fact that the United States allocates a smaller proportion of its GNP to investment. In 1978, the United States allocated only 7.3 percent of its GNP to gross fixed capital formation in machinery and equipment, where as Japan allocated 10.9 percent, Germany 8.9 percent, France 9.1 percent, and the United Kingdom 9.2 percent. In terms of total gross fixed capital formation, the United States allocated 18.1 percent, Japan 30.2 percent, Germany 21.5 percent, France 21.5 percent and the United Kingdom 18.1 percent.

The relatively slower growth in capital and skilled labor in the United States, along with the growth of these resources in other countries, has resulted in a reallocation of capital and skilled labor around the world. Table 1 provides an indication of the reallocation of capital and skilled labor by showing the U.S. world share of capital and professional/technical workers in 1963 and 1975. The world resource shares of selected countries are also shown. In 1963, the percentage of the world's capital located in the United States was 42 percent. By 1975, the U.S. share of the world's capital had fallen to 33 percent. Japan's share of capital more than doubled, from 7 to 15 percent. Note that the United States' share of skilled labor also declined between 1963 and 1975.<sup>2</sup>

\*Paper by Michael Aho and Harry P. Bowen, Office of Foreign Economic Research, Department of Labor, is based upon extensive empirical research conducted as part of the review of U.S. competitiveness mandated by section 1110B of the Trade Agreements Act of 1979. For a more detailed description of the analysis presented herein see Bowen (1980) and Aho and Rosen (1980).

<sup>1</sup> Often the concepts of comparative advantage and competitiveness are confused. Depreciation of the dollar will enhance the competitiveness of all U.S. industries relative to foreign competitors. Comparative advantage refers to the structure of trade relative to trading partners. A nation will always have a comparative advantage in something.

If the United States were to experience a trade deficit, say because of a loss of an export market overseas (net capital flows held constant at zero to simplify the discussion), the dollar would depreciate, thereby enhancing U.S. industrial competitiveness. The important questions are how the U.S. trade balance would be brought back into balance and which sectors would be involved. The dollar depreciation will increase the volume of exports and decrease the volume of imports, and assuming stability conditions hold, will bring the value of exports and imports back into balance. Which sectors respond is determined by underlying comparative cost considerations and will depend upon the structure of resource endowments and technology and how they change over time in different countries. Nonetheless, some sectors will respond and on the export side, they will be the sectors that are more competitive internationally. From a policy perspective however, it is important that industries and agriculture continually try to enhance their competitiveness (through investment, research, etc.) because depreciation of the dollar will lead to a deterioration in the terms of trade. Thus, depreciation of the dollar can always increase the competitiveness of U.S. industries, but only at the cost of a real income loss for domestic consumers as the real cost of imports in terms of exports rises.

<sup>2</sup> However, the U.S. world share of arable land increased between 1963 and 1975 from 27 percent to almost 30 percent. Thus, the United States is becoming increasingly abundant in land relative to capital and skilled labor, and it would be expected that this would enhance the international competitiveness of the agricultural sector relative to manufacturing.

TABLE 1.—WORLD SHARE OF CAPITAL AND SKILLED LABOR

	Capital		Skilled labor	
	1963	1975	1963	1975
United States.....	41.93	33.43	29.36	26.33
Japan.....	7.09	14.74	7.84	8.62
Germany.....	9.12	8.27	7.08	6.56
United Kingdom.....	5.60	4.89	6.97	6.44
France.....	7.14	7.94	6.57	6.24
Mexico.....	1.07	1.59	1.64	2.12
Korea.....	.13	.40	.57	1.64
Brazil.....	1.63	2.38	2.88	3.82
Hong Kong.....	.08	.12	.21	.19

A more direct picture of the changes in resource availability between the United States and other countries can be obtained by examining the availability of capital and skilled labor resources on a bilateral basis. Table 2 contains bilateral comparisons between the United States and selected countries. These data indicate, for example, that in 1963 the United States had six times the amount of capital compared to Japan and almost four times the amount of skilled labor. But by 1975, the United States had only two times Japan's capital and just over three times the amount of skilled labor. Clearly, the most dramatic change among those shown is that between the United States and Korea where the disparity in capital availability was substantially reduced.

TABLE 2.—RELATIVE CHANGES IN CAPITAL AND SKILLED LABOR

[Ratio of U.S. share to other country's share]

	Capital		Skilled labor	
	1963	1975	1963	1975
United States/Japan.....	5.91	2.27	3.74	3.05
United States/Germany.....	4.50	4.04	4.15	4.01
United States/United Kingdom.....	7.49	6.84	4.21	4.08
United States/Mexico.....	39.19	21.03	17.90	12.42
United States/Korea.....	332.54	83.57	51.51	35.11
United States/Hong Kong.....	524.13	278.58	139.81	138.58

These changes in the resource position of the United States both with respect to the world and individual countries have had their impact on the composition of U.S. trade. One method for assessing this impact is to examine the changes in the implicit exchange of capital and skilled labor services that are contained, or embodied, in U.S. trade as a result of changes in the composition of trade. Figure 1 shows the ratio of capital services to total labor services embodied in U.S. manufactured exports to the developed and developing countries. Figure 2 shows the ratio of skilled labor to total labor services embodied in U.S. manufactured exports to these two country groups.

FIGURE 1.—Capital services per workers relative to total labor services embodied in U.S. manufacturing exports to developed and developing countries—1961-77

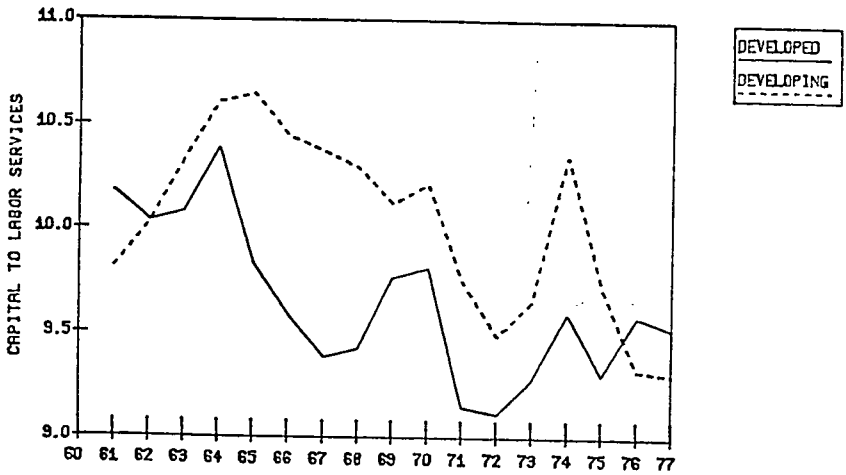
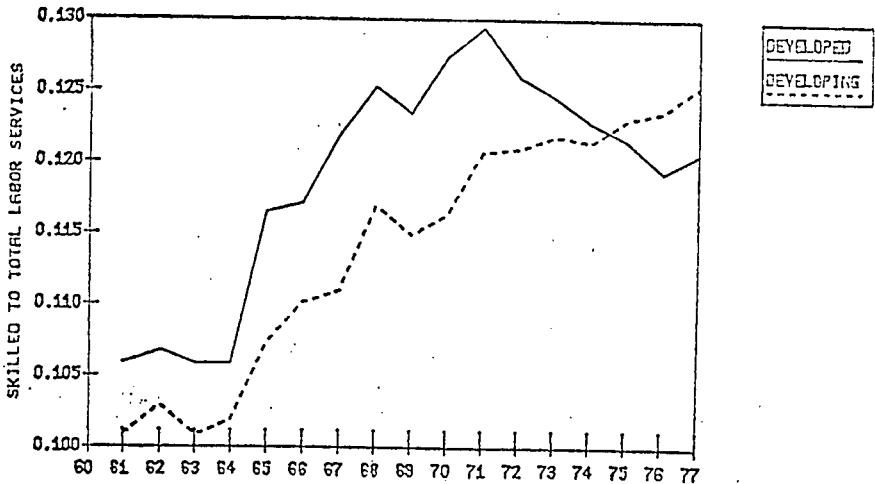


FIGURE 2.—Ratio of skilled to total labor services embodied in U.S. manufacturing exports to developed and developing countries—1961-77



Prepared by ILAB/OFER.

These figures indicate that, over time, the composition of U.S. manufactures trade has shifted toward those commodities which employ less capital per worker in production and thus that both the developed and developing countries have absorbed less capital per worker from the United States. These changes are consistent with higher rates of capital accumulation abroad than in the United States. Further, since the early 1970's, the composition of U.S. manufactures trade to the developed countries has shifted toward those sectors employing less skilled labor indicating a reduced absorption of skilled labor by the developed countries from the United States. However, since the early 1960's, the composition of U.S. manufactures trade to the developing countries has shifted continuously toward the more skill-intensive commodities and thus the developing countries are absorbing more skilled labor services.

These comparisons suggest that the changes in the structure of factor abundance of the United States relative to the rest of the world have had a significant impact on the structure of its trade. More detailed statistical analysis confirmed these results.<sup>3</sup> In particular, the relatively more rapid growth of physical capital, and to a lesser degree skilled labor (human capital), by the developed countries has enabled them to become increasingly competitive in those commodities in which the United States has traditionally had a comparative advantage. The results also indicated that the increasing accumulation of physical capital and semi-skilled labor by the developing countries has enhanced their ability to compete in many manufacturing commodities. This suggests, therefore, that both export and import-competing industries in the United States will face increasing competition in the 1980's if the U.S. share of world resources continues to decline.

TABLE 3.—R. &amp; D. EXPENDITURES AS A PERCENTAGE OF GROSS NATIONAL PRODUCT, 1964-77

Country	1964	1968	1972	1975	1977
France.....	1.81	2.08	1.86	1.82	1.79
Germany.....	1.57	1.97	2.33	2.39	2.26
Japan.....	1.48	1.61	1.85	1.94	1.26
United Kingdom.....	2.30	2.29	2.06	2.05	NA
United States.....	2.97	2.83	2.43	2.30	2.27

<sup>1</sup> 1978.

Source: National Science Board, "Science Indicators 1978," Washington, D.C., 1979. Table 1-1.

TABLE 4.—SCIENTISTS AND ENGINEERS PER 10,000 IN THE LABOR FORCE, 1965-77

Country	1965	1968	1972	1975	1977
France.....	21.0	26.4	28.1	29.3	129.9
Germany.....	22.6	25.9	35.7	39.4	40.5
Japan.....	24.6	31.1	38.1	47.9	49.9
United Kingdom.....	21.4	17.2	27.8	30.6	NA
United States.....	64.1	66.9	58.3	56.4	57.4

<sup>1</sup> 1976.

Source: National Science Board, "Science Indicators 1978," Washington, D.C., 1979. Table 1-3.

The decline in U.S. research and development effort both relative to the effort in other countries and relative to our own past effort could also be partially responsible for the increased competition being experienced by U.S. industry and for the changes in the structure of U.S. trade. Tables 3 and 4 compare research and development expenditures as a percentage of GNP and the number of scientists and engineers per 10,000 workers for the major countries.<sup>4</sup>

Technology-intensive products have traditionally been the source of strength in the U.S. trade balance.<sup>5</sup> All of the empirical evidence indicates that in the past the United States has had a unique advantage in the trade of high technology products. However, that unique advantage is slowly disappearing, in part because of the increased research and development effort overseas.

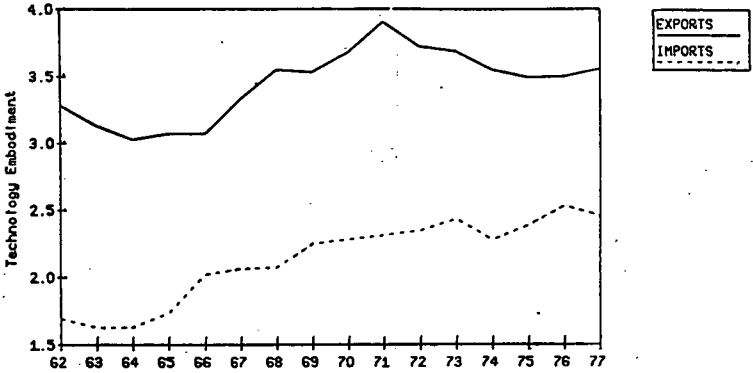
Figure 3 compares the technological content of U.S. manufacturing exports and imports over time and confirms that the United States has been and remains a net exporter of products which utilize relatively more technological input (research and development). Figure 4 compares the technological content of U.S. manufacturing exports to developed and developing countries over time. Since 1971, there has been a significant decline in the technological content of U.S. manufacturing exports to the developed countries. The technological content of U.S. manufacturing exports to developing countries continues to increase, but only slightly. These findings are similar to the results for skilled labor, but are not surprising because the industries which intensively use skilled labor tend also to be technology-intensive.

<sup>3</sup> After identifying the commodities which constitute the U.S. export and import bundles, the analysis was carried out for a cross section of thirty four countries at five different points in time. See Bowen (1980) for details.

<sup>4</sup> See National Science Foundation (1980) for a more complete discussion.

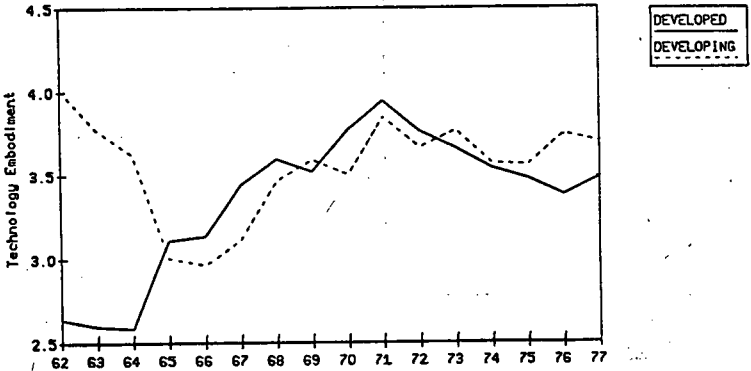
<sup>5</sup> Aho and Rosen (1980) identify seventeen 3-digit commodities as technology intensive and compare recent U.S. trade performance in these commodities with overall U.S. manufacturing trade, with past U.S. performance and with the performance of major competitors.

FIGURE 3.—Technology embodiment of U.S. exports and imports—1962–77



Prepared by ILAB/OFER with OECD Trade Series C data.

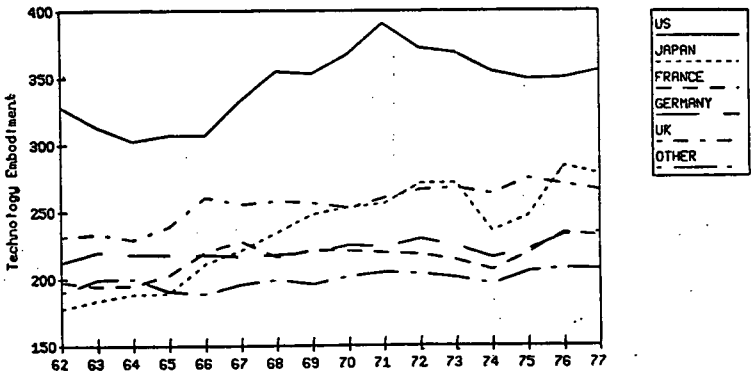
FIGURE 4.—Technology embodiment of U.S. exports to developed and developing countries—1962–77



Prepared by ILAB/OFER with OECD Trade Series C data.

Finally, Figure 5 and Table 5 compare the technological content of manufacturing exports of the major OECD countries for the period from 1962 to 1977. The technology-intensity of U.S. exports has remained almost constant over time showing only a slight decline after 1971.

FIGURE 5.—Technology embodiment of exports for selected OECD countries



Prepared by ILAB/OFER with OECD Trade Series C data.

TABLE 5.—TECHNOLOGY CONTENT OF OECD MANUFACTURED GOODS EXPORTS

	1962	1966	1970	1974	1977
United States.....	3.3	3.1	3.7	3.6	3.5
France.....	2.0	2.2	2.2	2.1	2.3
Germany.....	2.1	2.2	2.3	2.2	2.3
Japan.....	1.8	2.1	2.5	2.4	2.8
United Kingdom.....	2.3	2.6	2.5	2.6	2.7
OECD.....	2.3	2.3	2.5	2.4	2.5

Although there has been little change in the level of technological content of European manufactures exports, there has been a significant increase in the technological content of Japanese manufactures exports. By 1977, Japan ranked second behind the United States in terms of the technological content of its exports. This confirms the widespread impression that the United States is experiencing increased competition from Japan in the more technically sophisticated industries. A comparison of export market shares in third market areas reinforces this conclusion.

Changes in relative competitiveness in high-technology products can best be measured by examining exports of the major countries to a third market region where everyone faces the same market conditions. Such a comparison reveals that the United States has been losing ground, particularly to Japan. For example, in 1962 the U.S. share of exports of high-technology products to developing countries was 46 percent. By 1970 the U.S. share had dropped to 31 percent and it fell further to 25 percent in 1977. In contrast, Japan's share rose from 6 percent in 1962 to 13 percent in 1970 and to 22 percent in 1977. Thus, although the United States maintains the lead in exports of high-technology products, its competitive advantage is being eroded at least with respect to Japan.

In conclusion, the changing distribution of world resources, and thus their availability among countries, along with the increased technical effort by our major competitors are jointly responsible for the relative decline in the dominance of the United States in world trade. Because the United States emerged from World War II with its industrial base intact, it had a unique position in the world economy. That unique position has now largely disappeared, and the United States must now concentrate on keeping its industrial and agricultural base competitive because, if past trends continue, U.S. industries are likely to face increased international competition in the future.

#### SUMMARIES OF RECENT ANALYSES ON U.S. INTERNATIONAL COMPETITIVENESS AND THE CHANGING STRUCTURE OF U.S. TRADE

##### LIST OF PAPERS

###### Trends in U.S. Trade: 1960-79.

Changes in the International Pattern of Factor Abundance and the Composition of Trade: A Multi-Country Analysis of Changing Comparative Advantage in Manufactured Goods with Special Reference to the United States.

Trends in Technology-Intensive Trade: With Special Reference to U.S. Competitiveness.

Assessing the Changing Structure of U.S. Trade in Manufactured Goods: An Analysis and Comparison of Various Indicators of Comparative Advantage and Competitiveness.

A Constant Market Share Analysis of U.S. Export Growth.

#### TRENDS IN U.S. TRADE: 1960-79<sup>1</sup>

##### EXECUTIVE SUMMARY

International trade is becoming increasingly important to the U.S. economy. A common measure of the domestic significance of foreign trade, the ratio of

<sup>1</sup> Paper by Thomas O. Bayard, Office of Foreign Economic Research, Bureau of International Labor Affairs, Department of Labor.

U.S. exports plus imports to GNP, has risen from 10 percent in 1960 to almost 22 percent in 1979. This report summarizes the most important trends in U.S. trade since 1960 and attempts to assess the impact of changes in macroeconomic factors such as real GNP growth, inflation, and exchange rate changes on U.S. trade flows.

Although trade is becoming increasingly important to the U.S. economy, the United States' role in the world economy is becoming smaller. The U.S. share of total world exports declined from 18 percent in 1970 to 14 percent in 1979. The U.S. share of world exports of manufacturers fell from 21 percent to 17 percent in the same period. The United States experienced a substantial loss of market share in the import markets of Japan and the developing countries, but increased its share of centrally planned economies' imports in the 1970's.

The United States had small surpluses in its agricultural trade in the 1960's. Agricultural exports soared in the 1970's, mainly on the strength of increased exports to the developed countries and, especially, to the centrally planned economies. The surplus averaged well over \$10 billion since the mid-1970's. In 1979, the U.S. agricultural trade surplus reached a record of \$17.9 billion.

Because of the importance of U.S. manufactured exports and imports in total trade, the manufactured goods trade balance has tended to coincide with the movements in overall trade balance and to be influenced by the same macroeconomic trade factors. The surplus in manufactures declined through the late 1960's and a deficit emerged in 1972. Since then, there have been wide fluctuations in the manufactures trade balance. In 1979, the United States had a surplus of more than \$4 billion in manufactured products.

The United States trade position in manufactures has been particularly strong in capital equipment and high-technology products. Both of these designations frequently apply to the same product category (e.g., advanced electrical machinery). In 1979, the United States trade balance in capital goods reached a record surplus of \$32.6 billion. There is evidence, however, that the United States is losing its lead in high technology exports in recent years; in large part to Japan. Although U.S. exports of consumer and automotive products have grown rapidly in recent years, import gains have kept ahead of those of exports and the trend since the 1960's has been toward greater trade deficits in these products.

The United States ran small trade deficits in petroleum and petroleum products through the 1960's. The emergence of OPEC as a successful cartel was in part due to the growth in U.S. (and Western) dependence on energy imports. Both the volume and the price of oil imports tended to increase in the early 1970's, although the volume of imported oil has dropped significantly over the last two years. Recent declines in U.S. oil import volumes have been more than offset by rapid price increases. The oil deficit grew from \$3 billion in 1971 to \$55 billion in 1979 and has had a dampening effect on U.S. economic growth.

The U.S. trade surplus with the developed countries (DCs) declined through the 1960's. Deficits emerged in the late 1960's and early 1970's. In 1979, however, a large improvement took place in the U.S. trade position vis a vis developed countries because of a substantial increase of U.S. exports to these countries.

The less developed countries supplied 45 percent of total U.S. imports in 1979 compared with only 26 percent in 1972, primarily because of the rapid rise in oil imports. The LDC's share of U.S. exports rose from 31 percent in 1972 to 37 percent in 1979.

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#### CHANGES IN THE INTERNATIONAL PATTERN OF FACTOR ABUNDANCE AND THE COMPOSITION OF TRADE: A MULTI-COUNTRY ANALYSIS OF CHANGING COMPARATIVE ADVANTAGE IN MANUFACTURED GOODS WITH SPECIAL REFERENCE TO THE UNITED STATES<sup>1</sup>

##### EXECUTIVE SUMMARY

This paper assesses the role of changes in relative resource supplies across countries as an explanation of the changing structure of U.S. trade and the growing competition to United States producers in international markets since the early 1960's. Although focusing primarily on the United States, the analysis also

<sup>1</sup> Paper by Harry P. Bowen, Office of Foreign Economic Research, Bureau of International Labor Affairs, Department of Labor.

considers the impact of changing resource supplies on the trade structure of thirty-three other countries. In so doing, the analysis provides a basis for understanding the impact of relative resource changes on U.S. comparative advantage within the world economy.

The analysis first examines the changes that have occurred in the availability of resources (capital, labor of differing skills and land) across the thirty-four countries over the period from 1963 to 1975. Next, using traditional input-output methods, an analysis of the relationship between changes in resource structure and changes in the composition of trade as reflected in the changes in a country's implicit exchange of these factors' services is conducted. Finally, a formal statistical analysis of the resource determinants of U.S. comparative advantage is conducted at five points in time over the period from 1963 to 1975.

Overall, the analysis indicates that a consistent explanation for the decline in U.S. trade performance since the early 1960's is the result of changing world resource supplies. These changes are the result of differences in the rates of growth across countries of net real investment in equipment and the acquisition of labor skills through education and other training.

The data on resource supplies indicate that there have been substantial changes in resource structure across countries. In particular, it is found that the capital abundance position of the United States has been substantially eroded since the early 1960's. In terms of the growth in capital per worker, the United States outpaced only two countries: Ghana and Yugoslavia, both of which showed a decline. In comparison, Japan's capital per worker grew at an average annual rate of 10.1 percent, second only to Korea whose relative capital endowment grew at the surprisingly rapid rate of 11.9 percent per year. Other countries showing relatively rapid rates of growth in capital per worker include Greece, Spain, Hong Kong, Brazil and Mexico. As a result of this differential growth, the United States fell from first to sixth on the basis of the ranking of capital available per worker. This relative decline is also found, to a lesser degree, with respect to the U.S. availability of skilled labor.

When resource structure was assessed on the basis of a country's world share of each resource, similar declines for the United States were found. In particular, the U.S. share of world capital fell from 44 percent in 1963 to 33 percent in 1975. By comparison, Japan's share of world capital increased twofold over the same period, from 7 to almost 15 percent. The U.S. world share of skilled labor fell from 29 percent to 26 percent, its world share of arable land, however, increased from 27 to 29 percent.

Examining the changes in the composition of a country's trade and its exchange of factor services, the results indicate that changes in the availability of resources in the United States relative to the rest of the world have had a major impact on the structure of U.S. trade. In particular, the structure of U.S. trade since the late 1960's has been significantly influenced in the capital-intensive sectors and the composition of U.S. trade has shifted such that its relative exchange of capital services with the rest of the world has declined. This finding is consistent with the decline in the capital abundance position of the United States relative to the rest of the world.

When U.S. exports going to developed and developing countries are examined, the results suggest that the accumulation of skilled labor and capital in the developed countries has contributed to a decline in the absorption of these factors from the United States and that, therefore, these countries have expanded their ability to compete in those sectors representing major U.S. manufactures exports. The results also suggest that the accumulation of capital in the less developed countries has reduced their absorption of capital services from the United States but that they continue to absorb increasing amounts of skilled labor.

The formal statistical analysis of the resource determinants of U.S. comparative advantage indicates that the changes in the resource availability of the United States relative to other countries provide a significant explanation of the changes in U.S. trade structure and the increasing competition to the United States in world markets. It is found that skilled labor and capital remain important determinants of the commodities in which the United States has a comparative advantage. But given this, what matters for changes in trade performance in such products among countries is the rate at which these resources are accumulated.

In this regard, the findings indicate that the relatively more rapid growth of physical capital, and to a lesser degree, skilled labor by the developed countries has enabled them to become increasingly competitive in those commodities repre-



senting U.S. comparative advantage. The results further indicate that the increasing accumulation of physical capital and semiskilled labor by the developing countries has enhanced their ability to compete in those commodities representing U.S. comparative disadvantage. Therefore, the results suggest that both U.S. export and import-competing industries will face increasing competition in the 1980's. The likely consequence of this increased competition in world markets will be to narrow the range of products representing U.S. comparative advantage.

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TRENDS IN TECHNOLOGY-INTENSIVE TRADE: WITH SPECIAL REFERENCE TO U.S. COMPETITIVENESS<sup>1</sup>

EXECUTIVE SUMMARY

Recently there has been a decline in U.S. research effort both relative to its trading partners and relative to past efforts. Consequently, the question arises whether the United States will lose its competitive advantage in those technology-intensive commodities which have traditionally characterized its comparative advantage.

This paper examines recent trends in the pattern of trade in technology-intensive products to see whether there has been an erosion of the U.S. competitive position in these products. The analysis is basically descriptive and uses a variety of measures to compare U.S. trade performance in technology-intensive commodities with that of other major industrial countries for the period from 1962-77.

The analysis employs and compares all of the methodologies and indicators normally used to examine competitiveness and comparative advantage. These include: largest export earners, net exports, export-import ratios, "revealed" comparative advantage indices and exports and imports relative to domestic production and consumption. The analysis also examines U.S. export performance relative to major competitors in important commodities in third markets where all producers face the same market conditions.

The analysis shows that, in recent years, there has been a noticeable shift in the pattern of trade in high-technology products. The United States still maintains a strong competitive (and comparative) advantage in technology-intensive products, but U.S. competitiveness in those products in world markets has been deteriorating. The primary source of increased competition is Japan.

Several indicators revealed that high-technology products have been the source of strength in the overall U.S. manufacturing trade balance. Technology-intensive products comprise an increasing proportion of U.S. exports. Every year since 1962, the United States has had a trade surplus in technology-intensive products.

Relative to its major competitors, the United States still has (1) a greater concentration of high technology exports; (2) one of the largest export market shares in high technology products; (3) the greatest technological content in its exports; and (4) more technology-intensive products among the products which comprise its comparative advantage. However, there are several indications that the U.S. dominance in trade of high-technology products is beginning to erode.

The U.S. export market share in these commodities has fallen over time. In 1977, the U.S. share fell to second behind Germany, whose share had remained roughly constant over the fifteen-year period. During that period Japan's share quadrupled to a point where it was just behind the United States and Germany. The decline in the U.S. share and the improved performance by Japan and Germany were present throughout the entire period even after the exchange rate realignments began in 1971.

Another indication of a decline in U.S. competitiveness is the sustained increase in the import penetration ratio in high technology products. For many of the products the increases in their import penetration ratio was more rapid than for manufacturing as a whole. On a net export basis, several of the technology-intensive products had such a rapid growth of imports relative to exports that the United States became a net importer of those products. Finally, the United States is losing out to competitors in some of its traditionally strong products in third market areas.

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<sup>1</sup> Paper by C. Michael Aho and Howard F. Rosen, Office of Foreign Economic Research, Bureau of International Labor Affairs, Department of Labor.

Japan exhibits the most dramatic change in trade performance in technology-intensive commodities. Between 1962 and 1977, there was a remarkable shift in the structure of Japanese exports towards the higher technology industries. The share of these products in total exports more than doubled over the 1962-77 period. Japan now has the largest trade surplus in technology-intensive products. In the 1960's Japan's trade performance in high technology products ranked low among the OECD countries. Since then, Japan has risen to second, behind only the United States as an exporter of technology-intensive products. The amount of technology embodied in Japan's exports has more than doubled between 1962 and 1977. Finally, Japan has begun to compete very favorably with the United States and other major countries in third market areas, where all competitors face the same market conditions.

The fact that U.S. exports remain more technology-intensive than exports from other major industrialized countries indicates that the United States has not lost its comparative advantage in technology-intensive goods. But the rapid growth of Japanese exports of technology-intensive goods and the growing share of Japan's exports to markets that were traditionally dominated by U.S. producers, demonstrate that Japanese competitiveness in technology-intensive goods is increasing. If these trends continue, competition between the two countries will increase in the future as both countries specialize on exporting similar products.

Research and development is one of the factors which affects the long-run competitive position of a country. To the extent the United States devotes less resources to research and development than its major competitors, then the long run international competitiveness of U.S. industry will be reduced. Increased R&D by firms in other countries will enable them to develop newer products and processes with which U.S. firms will have to compete. Although depreciation of the dollar will make U.S. products look more attractive in world markets, this will reduce real income at home. Not doing enough to lower costs and develop newer, higher quality products could lead to a long-run structural decline in the U.S. competitive position. To prevent such a decline the United States may need to put more resources into research activity.

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#### ASSESSING THE CHANGING STRUCTURE OF U.S. TRADE IN MANUFACTURED GOODS: AN ANALYSIS AND COMPARISON OF VARIOUS INDICATORS OF COMPARATIVE ADVANTAGE AND COMPETITIVENESS<sup>1</sup>

##### EXECUTIVE SUMMARY

This paper examines the growing importance of international trade to the U.S. economy and attempts to determine those commodities in which the United States has increased, maintained or lost a comparative and competitive advantage. The analysis focuses on the changes in the trade structure of the United States over the period from 1962 to 1977. The analysis is conducted at a highly disaggregated level using 102 manufacturing categories as defined at the 3-digit level of the Standard International Trade Classification (SITC).

A major contribution of this paper is that the analysis of U.S. trade structure and trade performance is based on an extensive list of indicators normally used to measure a country's performance in world markets. These indicators are first used to examine the changes that have occurred in the structure of U.S. comparative advantage and that of its major competitors. Cross-tabulations of the indicators at specific points in time as well as their change over time are then used to examine the relationships between the indicators and to determine a consistent list of commodities (based on all the measures) in which the U.S. has maintained or lost a comparative and/or competitive advantage.

Having established that international trade is playing an increasing role in U.S. economic activity, a determination of the specific commodities accounting for this growing interdependence was then made. This was accomplished using two measures, the ratio of exports to domestic shipments and the ratio of imports to apparent consumption.

Among the commodities with a high ratio of exports to domestic shipments and which therefore play an important role in the U.S. export sector are: ma-

<sup>1</sup> Paper by C. Michael Aho and Harry P. Bowen. Office of Foreign Economic Research, U.S. Department of Labor; and Joseph Pelzman, Brookings Economic Policy Fellow, assigned to the Office of Foreign Economic Research.

chinery and appliances—other than electric, aircraft, power generating machinery—other than electric, and chemicals.

The commodities demonstrating a high import to apparent consumption ratio include musical instruments, pottery, textile and leather machinery, iron and steel tubes, silver and footwear.

A number of different measures were then used to determine the structure of U.S. comparative advantage and U.S. trade performance. These measures were:

*Indexes of Revealed Comparative Advantage.*—Two indexes were used. One is defined as a country's world market share of a particular commodity divided by the country's share of total world manufacturing exports. The second index is the ratio of a country's exports to imports of a particular commodity divided by the ratio of its total manufacturing exports relative to its total manufacturing imports.

*Net Exports.*—Divided by domestic shipments.

*Import Penetration Ratio.*—Divided by the overall manufacturing import penetration ratio.

*Constant Market Share Residual.*—At a commodity specific level, the CMS procedure identifies two component effects contributing to export growth. One is due to the increase in world trade of the commodity and the other is due to the regional or market distribution of the country's exports of the commodity. Once these two effects have been determined the residual effect is measured as the difference between the actual increase in exports and that which would have occurred had the country maintained its market share of the commodity in each regional market. When this residual effect is negative it is interpreted as a decline in competitiveness. Conversely, when the residual effect is positive it is taken to mean that the country has increased its competitiveness.

Based on the changes in the two indexes of revealed comparative advantage between 1962 and 1977, changes in U.S. trade performance across the 102 manufacturing commodities were examined. The results of this analysis indicated that:

Five commodities showed improved performance based on both indexes of revealed comparative advantage. These were: other inorganic chemicals, manufactured fertilizers, cotton fabrics-woven, glass and miscellaneous nonferrous base metals.

Three commodities revealed a disadvantage on both indexes. These were: articles of rubber, n.e.s. (representing mostly rubber tires), telecommunications apparatus and miscellaneous manufactures.

Fourteen commodities maintained an advantage on the basis of both indexes. These included: explosives, tools for use in the hand or in machines, electric power machinery, and electrical medical apparatus.

Twelve commodities maintained an advantage on the basis of one index and revealed a disadvantage on the other. Notable among these twelve are: inorganic chemicals, road motor vehicles, medical and pharmaceutical products, plastics and metalworking machinery.

The above results were based only on changes in the indexes between two years, 1962 and 1977. As an indication of overall changes, the trend changes in three of the more important indicators (net exports, revealed comparative advantage and import penetration) were computed based on annual data and lists of the commodities showing either consistent positive or consistent negative performance across those indicators were compiled. These are presented below.

Commodities showing consistent positive performance were:

- Organic chemicals;
- Other inorganic chemicals;
- Essential oils, perfume and flavour material;
- Fertilizers, manufactured;
- Explosives and pyrotechnic products;
- Leather;
- Veneers, plywood boards;
- Paper and paperboard;
- Textile fabrics, woven other than cotton;
- Tulle, lace, embroidery;
- Special textile fabrics and related products;
- Floor coverings, tapestries, etc.;
- Glass;
- Rails and railway track of iron or steel;
- Nickel;

Lead;  
 Tin;  
 Miscellaneous nonferrous base metals;  
 Machines for special industries;  
 Equipment for distributing electricity;  
 Scientific measuring and controlling instruments; and  
 Photographic supplies.

Commodities showing consistent negative performance were:

Inorganic chemicals;  
 Manufactures of leather;  
 Articles of Rubber, nes;  
 Pig iron;  
 Universals, plates and sheets of iron or steel;  
 Zinc;  
 Wire products (excluding electric);  
 Nails, screws, nuts and bolts;  
 Manufactures of metals, nes;  
 Telecommunications apparatus;  
 Domestic electrical equipment;  
 Road motor vehicles;  
 Furniture;  
 Clothing (except fur clothing);  
 Fur clothing; and  
 Footwear.

Overall, the cross-tabulations indicated that the measures most often agreed as to the commodities with declining international performance. When net exports was used as the base indicator of trade performance, the indicators showing most agreement as to changes in trade performance were first the two indexes of revealed comparative advantage and then the constant market share residual.

Lastly, the results indicate that the United States has improved its performance in many of its key export products including scientific instruments and certain chemical products. But the United States has also suffered an erosion in its international performance in the key export earning sectors of telecommunications apparatus and road motor vehicles. These changes reflect changes in the composition of U.S. trade in response to changes in world trade and international competition. Continuing adjustments are likely to occur as resources are reallocated toward those sectors showing improved performance.

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## A CONSTANT MARKET SHARE ANALYSIS OF U.S. EXPORT GROWTH<sup>1</sup>

### EXECUTIVE SUMMARY

This paper examines the movements of U.S. world market export shares between 1962 and 1977. It also evaluates the performance of U.S. exports in particular subperiods over the 1962-77 period rising the Constant Market Share (CMS) model. The particular subperiods analyzed are 1962-69, 1970-73 and 1974-77. The entire analysis was performed for 102 manufacturing commodities defined at the 3-digit SITC level. In the main body of the paper an indepth analysis of the performance of the top eighteen U.S. manufacturing export earners over the entire 1962-77 period is conducted as is a CMS analysis of the growth of total U.S. manufacturing exports.

An appendix provides a comprehensive and concise summary of U.S. export performance for each of the 102 commodities. For each 3-digit group, a brief written summary is given indicating the changes in U.S. relative export performance, a brief list of the major competitors in each commodity, and a summary of the CMS results. Further information on U.S. trade performance is provided in the form of a graph indicating the movement in both the U.S. world share of exports and U.S. net exports over the 1962-77 period.

Although trade is becoming increasingly important to the U.S. economy, the United States is playing a relatively smaller role in the world economy. An

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<sup>1</sup> Paper by Harry P. Bowen, Office of Foreign Economic Research, Department of Labor, and Joseph Pelzman, Brookings Economic Policy Fellow, assigned to the Office of Foreign Economic Research.

analysis of U.S. export market shares for 102 manufactured commodities indicated that the United States had trend declines in 71 percent of the commodities compared to 26 percent for Japan and 24 percent for West Germany. Most of the U.S. declines occurred in the 1960s with the 1970's representing mostly a period of stabilization.

Among the top five U.S. manufacturing export earners (road motor vehicles, nonelectrical machinery, aircraft, other electrical machinery, and office machines (computers)), only aircraft had an increase in its export market share.

The Constant Market Share model facilitates the analysis of this export performance by enabling one to attribute U.S. export growth to four specific sources:

The growth of world trade;

The commodity composition of U.S. exports;

The market distribution of U.S. exports; and

A residual representing the difference between the actual increase in a country's exports and the increase that would have occurred had the country maintained a constant share in each market and in each commodity.

This model allows one to address the following questions: (1) What would U.S. exports have been if they had expanded at the same rate as world trade? (2) What is the influence of the commodity composition of U.S. exports on its export performance? (3) What is the effect of the relative growth in demand for U.S. exports in key country or regional markets? (4) What portion of U.S. export growth is unexplained by these factors? The changes in this last component are usually attributed to changes in competitiveness.

The CMS results for total U.S. exports indicated the following:

Over the entire 1962-77 period the United States experienced a decline in its competitiveness as reflected by the CMS residual with most of this decline occurring in the 1962-69 period.

During the 1962-69 subperiod the United States export performance was enhanced by the relatively faster growth in key markets but this was not sufficient to offset major declines in competitiveness.

During the 1974-77 subperiod a positive source of U.S. export growth was the favorable commodity composition of its exports.

The decline in the competitiveness component of the CMS equation may not necessarily imply a general loss in U.S. competitiveness for two reasons:

A comparison of the various countries' export unit values over the 1962-77 period demonstrated that during the 1970-77 period the growth in U.S. export unit values was far smaller than its major competitors with the exception of Japan during 1974-77.

A comparison of growth rates of gross domestic product (GDP) indicated that in each of the three subperiods the growth of U.S. GDP was less than that of its major competitors.

Therefore, it is possible that the decline in U.S. competitiveness as captured by the CMS analysis may, in part, be attributed to differences in GDP growth rates and differential increases in export unit values among major trading partners not reflective of actual changes in competitiveness.

To substantiate the conclusions based on the analysis of total U.S. exports, and to determine if major shifts across commodities had occurred during the 1962-77 period, the CMS analysis was performed separately for each of the 102 manufacturing commodities. The results of this analysis indicated that:

In most cases the decline in U.S. export shares in the 1960's and early 1970's was due to residual competitiveness factors.

The growth of U.S. exports in the 1974-77 period was retarded by both the slower growth in key U.S. export markets as well as competitiveness factors.

Whereas the 1960's represented primarily a period of decline in U.S. competitiveness, the latter part of the 1970's appears to have been a period of realignment in response to major changes in international trade.

Under ideal circumstances, the CMS analysis would allow for separate identification of each of the above effects. In practice, however, this procedure is subject to a number of biases on both conceptual and empirical grounds. Therefore, to determine the extent to which the CMS results generated were susceptible to identifiable biases, three sensitivity tests were conducted. In particular, variations in the overall CMS estimates were examined as a result of changes in:

The choice of base year.

The level of aggregation of commodities.

The definition of the world market.

The results of the various sensitivity tests indicate that :

The CMS component estimates were not severely affected by the commodity aggregation but did appear highly sensitive to both changes in the base year chosen and to variations in the definition of the world market.

Its high sensitivity to base year changes supported the conclusion that major structural changes have occurred in the U.S. export sector.

Senator BENTSEN. Mr. Aho, that's a very refreshing bit of testimony from the Department of Labor. I agree with you that changing the value of the dollar is just treating the symptom and not the cause of the problem at all. It's a band-aid approach. We are all familiar with numbers on the Japanese and their capital-to-labor ratio and how they have been moving at a much faster rate than we did in the late 1960's and early 1970's. One of the other things, though, that surprised me is that the number of skilled workers in the Japanese labor force grew much more rapidly than in our own.

What should we do to develop a higher percentage of skilled workers in our labor force? So many of the CETA programs have failed. How can we find a better correlation between training and the job, maybe starting schools, as some of the German industries have done. I'm not familiar with the Japanese. How do they do it? What can we do to increase the percentage of skilled workers?

Mr. AHO. Thank you, I neglected to point out our share of skilled labor has also fallen and Japan's has increased quite dramatically. My office has been involved for several months now and we will continue to be over the next year in a cooperative research project with the Japanese Ministry of Labor. The project is to compare and investigate, with the cooperation of some Japanese scholars, adjustment policies and training programs within Japanese manufacturing firms. The Japanese Ministry is very interested in our training programs in higher technology industries, but the United States has, as you suggest, devoted less to retraining of workers.

Our experience with training is basically in the CETA program for the disadvantaged. The Department of Labor is now trying to investigate how to deliver training and adjustment services to U.S. workers and to determine what is the best way to induce people to accept training—it's a very, very difficult question.

I think for new entrants to the labor force, the occupationally most mobile, we haven't had much trouble attracting more skilled laborers. The enticement is there with the higher wages. Our major problem in the 1980's maybe for those workers aged 35 to 40 who are laid off that have a skill that isn't completely adaptable to another industry or occupation. Unlike other foreign countries, training is not as institutionalized in society in this country and we haven't devoted as much Government resources to it.

I wish I could answer how to deliver more training or how to improve the skills of workers, but that is a very difficult question.

Senator BENTSEN. I look at these pages and pages of want ads despite all the unemployment in this country, but they are asking for skilled workers. I was awfully frustrated by some recent testimony we had from Volkswagen of America. The quality of the product turned out in Pennsylvania is now equal to what they produce in Germany. But they did have startup problems with their suppliers. Initially they had to turn many parts back because of low quality. The Japanese workers have been instilled to develop a quality product, and

some Japanese firms have been able to do it in this country. We just have to find a way to get quality up.

I apologize, gentlemen. I have another committee I have to go to and asked Senator Roth to preside. We are very well organized in the Senate. We usually have to be in three committee at the same time.

Senator ROTH [presiding]. Thank you, Mr. Chairman. I was very much interested in your comments on labor. I think a key problem is how do we bring about better cooperation between business, labor, and Government; and what concerns me is that while you see some signs of improvement in particular industries—steel, as you pointed out, which has been going on for some time, the automobile industry seems to be doing it—when those industries get depressed and they're in a deteriorating situation the change comes about, but I don't think we can afford to wait.

And the question I have is what steps can we take from Government to bring about real substantial improvement in cooperation among the three sectors of our economy? One thing that's been pointed out to me is that in Japan, for example, business looks upon maintenance of employment as a key goal and for that reason labor is not quite so concerned about technological improvements. Labor feels they will maintain their jobs.

Have you made any study of this?

Mr. AHO. Yes; as a matter of fact, the research that we have ongoing with the Japanese Ministry of Labor is examining the lifetime employment system in Japan. The system does not apply to all workers, but the commitment that Japanese employers have to their employees is responsible for maintaining employment during cyclical downturns. For example, in the post-1973 period, Japan's economy has been severely tested. Japan had been growing at over 10 percent a year, but since 1973 the growth rate has fallen substantially. But in 1974 and 1975, 40 percent of Toyota workers—and I visited a Toyota plant myself—went on three-quarter days. For the other 2 hours of the day Toyota provided training and education and some recreation for the workers. Everybody kept their job and then, in the cyclical upturn after that, they were all able to go back to work full time again. But, not only did they keep their job, they kept their full pay. That's certainly much different than we see here, and is an indication how the adjustment process is different in Japan.

I don't want to say that there aren't any adjustment costs that have to be borne. They are borne in the secondary and tertiary labor markets further down the line. But employers do have a greater commitment to their workers in Japan and workers therefore have a greater commitment to their employers. Both parties are more cooperative and this results in greater consensus in achieving adjustment to economic change.

Senator ROTH. I have read, as you point out, that your small businesses and their employees are often the ones that take the impact of recessions and so forth. While they maintain employment in the larger companies, the smaller companies suffer. But it does seem to me if we're going to get the cooperation of labor, of the worker, we have to find some answer to this problem.

I must say, as a Senator, if you told me a computer could take over my job, I probably wouldn't be enthusiastic about it. I don't think

you can expect the workers to be enthusiastic unless they see they participate.

Do you feel the answer is, through trade adjustment legislation—we have some before this Congress. Do you think this is a step in the right direction?

Mr. AHO. Well, before I address the question on trade adjustment, I'd like to say we're lacking a forum, although we have a new tripartite committee in steel and we will be getting one in autos, for a discussion of these adjustment and productivity issues. If there were a forum where the differences in perspectives could be debated and the tradeoffs discussed, it might be easier to reach a consensus.

The trade adjustment assistance program was designed to compensate those workers who were laid off in those cases where imports contributed importantly to their layoff. It was also designed to deliver adjustment services for those workers.

As you probably know, the program has been much more successful at compensating workers and much less successful at providing adjustment services for workers. But the program may be our first step or a step from which we could learn how to develop a more positive adjustment policy for the United States that would facilitate the transfer of permanently displaced workers from one occupation to another. But as yet, the adjustment provisions of the program have not been fully operative and to the extent there have been any adjustment moneys available they have been used up quickly. I think that this year they were completely used up within the first 6 months of the year. There has not been a budgetary commitment to the adjustment portions of the trade adjustment assistance program.

Senator ROTH. First of all, let me say I appreciate the support of the chamber on our omnibus trade bill. I think it's a major initiative on the part of the Congress, on the Senate in particular, in trying to address some of the problems in trade, and certainly the chamber has been most helpful.

Mr. VERITY. Well, we are hopeful, Senator, that we can create knowledge in all of these local chambers of commerce and the country that exporting is vital to the welfare of our country and we hope that we can be effective. I would like to just make a suggestion in answer to your question.

I think that attitudes in this country are extremely important if we are to solve some of the productivity problems and some of the problems that you were referring to. I think what has occurred is that through overregulation and through this adversary position that has built up that we have forgotten there should be a national focus on the positive things that need to be said and done. I believe this Government, the Congress, and the administration, could go a long ways toward helping this by going back to the old Navy "E" program where you awarded flags and other things for excellence in meeting quality objectives which were so vital to the Navy. This is the kind of thing that will still move Americans. If the Government says it's the national policy that we want to produce quality products, we want to be fully competitive, we are going to put out rewards for this kind of thing—it doesn't have to be monetary. It has to be things that will move people. If we can create that kind of attitude again—and we



have had it in the past—I think it will go a long way toward helping resolve some of these pitfalls that we now see.

Senator ROTH. Well, I would agree that the pursuit of excellence has to become a part of our culture again. I think it's something that we've not paid enough attention to in recent years and I do think that we could draft some kind of a program along the lines you suggest which might be helpful, although I would have to say that WIN didn't seem to do very much a few years ago so it depends in what context it is introduced. I do agree that somehow we've got to get people interested in the problem, make an appeal to the individual, and perhaps this would be a way to do it.

Mr. VERITY. It will probably come with an emphasis on export because you're not going to export unless you're fully competitive unless your quality is equal to anything else in the world.

Senator ROTH. I'll be frank with you, Mr. Verity. My concern is with Government and with business and with labor, all three, who say, "I don't see any sense of urgency." I'm sitting right now in the Finance Committee on the tax proposal. As a matter of fact, my colleague, Mr. Kemp, is testifying right now. I'm not speaking particularly on behalf of that approach. But one thing that I have heard you people say this morning is we are not making enough investment, and yet on the books we see Federal revenues jumping from \$500 billion to over a trillion in 1985. Yet the attitude of many people is let's wait and see. It seems to me, if we are going to do something about investment, we've got to start taking these steps now. We can't wait until tomorrow, which is the approach of a lot of people. I have to say the same thing about business. Too often too many business people are I think understandably but primarily concerned about the domestic market. The complaints that we heard time and again from American businessmen abroad were not only against their Government and all the redtape and disincentives we have created—and certainly there's room to be outraged by that—but at the same time, they don't feel their own management is really critically interested except in a very secondary way. So that it seems to me there is a lack of urgency there on the part of business as well, and that's what bothers me.

I understand, Mr. Rapp, you haven't had a chance to testify yet, so why don't we go ahead and let you testify and then we can go back to some of these general questions.

**STATEMENT OF WILLIAM V. RAPP, VICE PRESIDENT, MINING/  
CONSTRUCTION DEPARTMENT, MORGAN GUARANTY TRUST CO.,  
NEW YORK, N.Y., AND VISITING PROFESSOR, TOYOTA FUND,  
SCHOOL OF INTERNATIONAL AFFAIRS, COLUMBIA UNIVERSITY**

Mr. RAPP. Thank you, Senator Roth. I appreciate very much the committee's invitation to express my views on what we all recognize is an extremely important problem facing the United States, its eroding economic competitiveness worldwide.

My name is William V. Rapp and I am a vice president at Morgan Guaranty in the mining/construction department. In addition, I am the visiting professor on the Toyota fund at Columbia University's School of International Affairs, and a specialist on the Japanese econ-

omy. My particular expertise is the interaction between Government policy, industrial development, and changes in international competitiveness. It is in this role that I am here since the committee is interested in Japan as a major U.S. competitor in world markets. However, the views expressed are my own and do not necessarily reflect those of Morgan Guaranty or Columbia.

I am especially pleased to be testifying before this committee because Senators Bentsen, Roth, and their colleagues have been very outspoken about the need for new policies to improve U.S. competitiveness. In addition, Bill Verity has been quite active in his support for the National Export Policy Act and related measures. And Mike Aho's report will certainly add to our knowledge about our current competitive difficulties.

Yet, I remain concerned. A national export policy is clearly important. But it is only one aspect of what is necessary to improve America's international competitiveness. This competition with the Japanese, the Europeans, or whoever is for global market share. However, one must be competitive domestically first to be competitive internationally. The Japanese clearly recognize this. All their successful export industries have been based on competitive development in the domestic market. Further, we have an import problem as much as an export problem. But a competitive domestic base can both reduce imports and increase exports, a double impact on the trade balance.

Increasing incentives and financing for exports while reducing disincentives is obviously an important aspects of improving U.S. business global competitiveness. Without an efficient productive industrial base, though, the overall effectiveness of such policies is reduced. This would be unfortunate, especially if it led to renewed accusations that while Government has done its part, "business still isn't doing its share or isn't paying attention to exports."

In addition, foreign investment is strategically very important in achieving global competitiveness. It should therefore be encouraged as well. Such investment provides a natural market for U.S. exports, impacts foreign competitors, and provides a competitive production base for more U.S. corporate employment.

Thus, the basic keys to increasing global market share are higher investment rates domestically and overseas supported by higher U.S. savings rates. In fact these are also the keys to improving U.S. productivity, upgrading employment, and decreasing inflation. Given these first, then an export incentive policy can be really successful, and can dramatically help the beneficial cycle of increased global market share, increased investment, greater cost competitiveness, and more market share.

This assessment would be true even if the United States were operating in a relative competitive vacuum. It is not. Japan is already pursuing policies described below that continue to be competitively very successful. Their major corporations are improving world market share in several important industries. Therefore, if we want U.S. business to be competitive in world markets in the 1980's, including the U.S. market vis-a-vis exports and foreign investments, we must have policies that are both responsive and effective. To a significant degree, Japanese actions in world markets will define the nature of global competition in the 1980's. To avoid the adverse military, economic and

political consequences of a continually weakened industrial base will therefore require understanding the true nature of that competition. Then we must design an appropriate integrated policy to improve our global market share in basic and key industries domestically and overseas.

Japan's postwar industrial policy emerged from a compelling need for economic survival, then shifted to a plan for catching up with the West, and recently evolved into a strategy for upgrading employment and the quality of life. General goals have thus been continually raised as achieved, an evolution inherent in Japan's "apparent" principles for dynamic policy formulation.

At the end of World War II, Japan's economy was devastated. She had to provide a living for a large population expanded by returning soldiers and colonists. With little arable land and few raw materials, she had to develop an internationally competitive industrial sector that could supply domestic demand and could export to pay for required food, energy, and raw material imports. Further, given the economy's labor intensity, any rise in income depended on becoming efficient over time in more capital and technologically intensive industries. These goals logically required targeting key industries and achieving high growth and productivity rates. This necessitated high investment rates which to be noninflationary required high savings rates. The Government, therefore, undertook to change savings and investment rates through monetary, fiscal, and tax policy actions, and to stimulate a funds flow initially toward industries like shipbuilding, steel, fertilizer, and power generation, and later toward chemicals, petrochemicals, autos, and computers. This reflects explicit industrial sequencing and product cycle development over time as part of economic growth. The Government ran a fiscal surplus, increasing aggregate savings, while aggressive monetary policy encouraged corporate debt financing. This lowered after-tax capital costs and stimulated investment, particularly in heavy industry. The result was a flexible financial system generating substantial savings readily allocated to high-growth areas.

These policies' success is well documented. Japan achieved very high real growth rates and low unemployment rates with remarkable wholesale and export price stability. They had to increase savings and investment levels, and they did, from 20 to 25 percent of GNP in the early 1950's to over 40 percent in 1973.

Senator ROTH. Could I ask a question? What's the current level?

Mr. RAPP. It depends on whether or not you include negative Government savings. If not, we're talking somewhere around a 36- or 37-percent savings rate now, excluding the Government deficit.

These dramatic changes in savings and investment rates radically altered relative factor endowments between capital and labor. Therefore, during the postwar, Japan logically gained comparative advantage in more capital and technologically intensive industries, raising incomes and living standards. This was done through a combination of reactive and active strategies that both positioned the economy to take advantage of perceived trends and increased the probability those trends would occur.

Japan has also balanced supply and demand management by monitoring the real microeconomy, the monetary economy, and their interaction. Emphasis has been on real economic factors such as establishing

internationally competitive industries with real productive capabilities. This is viewed as a dynamic process. Policy aimed at changing economic structure and comparative advantage must recognize the economy as continually evolving. Therefore, views and policies on the appropriate target industries, industrial structure, and living standards were constantly revised and upgraded.

Japanese officials, businessmen, and labor leaders understand the need to plan and prepare for the economy's natural development. Currently this means phasing out of light and even certain capital, but energy-intensive, industries into more technologically sophisticated and knowledge-intensive production and employment—for example, computer, semiconductors, telecommunications, software systems, engineering, and so forth. Decisionmakers understand that the declining cost of technological transfer combined with faster growth in the less-developed countries of light and certain base materials industries means Japan is rapidly losing absolute and comparative advantage in these industries. But since Japan views growth and changes as positive, she is not opposing these forces. Rather she is encouraging and cushioning their impact. Imports are fostered to keep living costs low, while Government helps firms to scrap obsolete plant, modernize, and enter new industries. Differentiating between winners and losers does not mean eliminating the latter. Instead, it means encouraging high-growth industries that increase employment, and maintaining the competitiveness of slow-growth businesses. Slow-growth businesses thus usually maintain existing output, but continue to rationalize and increase productivity. Therefore, their contribution to employment and their percentage of total output declines as does their claim on total resources. So they remain competitively viable with a positive economic impact overall.

Firms are also investing overseas to maintain export markets through lower cost production bases, while they retain marketing, design, engineering, and equipment support. This is often with Government support for infrastructure investment and equipment export financing. In this way firms upgrade intraindustry employment while globally improving overall corporate competitiveness. Just as successful Japanese managers saw that exports extended the beneficial cycle of investment, productivity improvement, cost declines, competitive pricing, market expansion, and more investment once high domestic demand slowed, they now view foreign investment as a logical strategic extension to maintain global markets and to promote corporate development.

Simultaneously, with a continuous upgrading in employment opportunities and the quality of life, these policies will create a positive outlet for Japan's excess savings. It will also reduce her trade surplus and pressures on the yen as some export growth is shifted abroad. Further, because real savings and investment rates, thus real growth and productivity rates, will continue to be higher than current U.S. levels, competitive restructuring should take place rather smoothly at lower rates of interest and inflation than America. Simultaneously, real living standards, employment opportunities, and Japanese global competition should rise more rapidly. Moving declining industries offshore naturally contributes to this beneficial cycle as fewer resources are channeled to low growth sectors. The overall growth rate, there-

fore, remains higher, and growth facilitates structural change. Continued high savings rates and low user capital costs remain the key to restructuring. They make possible higher domestic growth and substantial foreign investment without sacrificing competitiveness and modernization in basic industries.

From this brief overview, one can see the importance of technology and capital formation to Japan in upgrading employment, improving productivity, fostering beneficial economic change, and increasing competitiveness—for example, licensing has been of great assistance to Japan's development. Technology assessment has also been a useful policy tool in analyzing future economic developments. But Japan's power has not been in developing such technology. Rather, its advantage has been in upgrading and incorporating the best available technology more rapidly than others via high savings and investment rates and the impact of government policies. Capital formation is the engine driving their economic success.

If I could just stop here for a second, I'd like to make a comment on an earlier remark. I would note that the real reasons Japan is able to upgrade its skill levels better in terms of labor is because their labor is dealing with more modern plant and equipment. If our labor was dealing with more modern plant and equipment, we would have higher skill levels and we would be more competitive so we would be able to maintain employment in those industries so people who did have high skills wouldn't emigrate to other industries whose industries are more stable. That is exactly the case in Japan. It's because Japan modernizes and maintains the competitiveness of her capital structure that she's able to maintain both her skill level and the competitiveness of her industries and therefore improve the number of skilled laborers that she has.

Unfortunately, the United States has represented the converse of these developments in its competition for global market share across many industries. The Japanese are not supermen and have had their corporate failures. But our corporations must compete with their winners, who so far have been formidable competitors, while our policy responses have been inadequate.

What are the appropriate U.S. responses? I cannot cover them in detail here, though I have attached a paper that does go into more detail. But it is clear that since World War II, Japan's industrial policy has been extraordinarily successful. She has consistently maintained high growth rates, and is probably today's leading industrial power. This is no accident, but a direct result of industrial policy. In turn, any United States competitive response must address the essence of Japan's program for competitive success. I recognize that planning mechanics and implementation will require somewhat different arrangements compatible with our own political, economic, and social institutions and values. We must have our own approach to improving U.S. competitiveness. And a national export policy must be an integral part of this. But at the same time, basic economic goal setting, strategic principles, and qualitative targets are not bound by culture or institutions and must be addressed. They should therefore be adapted for U.S. competitive policy purposes and are as follows:

One, growth and economic change are beneficial. Industrial policy should thus both cushion growth's adverse effects and maximize its

positive developments by promoting rather than opposing basic economic forces.

Two, industrial policy in a complex society requires a long-term perspective.

Three, policies must be both dynamic and industry specific because economies, industries, and markets differ at any point in time and constantly change and develop over time as well. Therefore, a dynamic disaggregative economic analysis is an important aspect of successful policy formulation. In this light, I think Mr. Aho's contribution will be significant.

Four, markets are multinational so that policies must encourage international competitiveness by rewarding competitive success domestically and overseas.

Five, various countries have different institutional and regulatory environments so one's own policies and regulations must be flexible and consider the cost competitive impact of its regulations.

Six, policies must promote savings and investment since high savings and investment rates are absolutely necessary for solid growth, productivity improvement, low inflation rates, international cost competitiveness and a strong currency.

Seven, energy policy is an integral part of industrial policy as developing alternative energy sources to oil or conserving energy requires higher levels of investment and structural shifts.

Eight, some Government interference in a complex pluralistic society is recognized as inevitable. At the same time, it should be limited, should emphasize direction rather than control, and should be based on cooperation with business and labor.

The next few years will determine whether America has the political will to develop such a global competitive strategy. Certainly we have the ability to analyze and forecast competitive trends. The Japanese advantage so far has been to act on their analyses' implications. They have initiated cooperative policies affecting various segments of the economy to change the real allocation of resources. This is most analagous to our handling of defense policy. Therefore, we should approach industrial policy with a similar concern, recognizing its importance to the survival of other national policy objectives—defense, foreign affairs, agriculture, and so forth—Perhaps we will then have the political will to develop the mechanisms appropriate to our democratic institutions and pluralistic society that can implement a successful industrial policy just as the Japanese have done for theirs.

Also, I would like to put in the record a statement that covers United States-Japan global competition in greater detail, part of which will appear in a paper that I prepared for the committee's special study on economic change.

Thank you very much, Mr. Chairman.

[The paper referred to by Mr. Rapp follows:]

#### THE UNITED STATES AND JAPAN: COMPETITION IN WORLD MARKETS<sup>1</sup>

##### POLICY ALTERNATIVES FOR THE UNITED STATES

United States-Japanese competition in world markets is a broad-gauged subject. I've chosen to examine it in terms of the impact of policies and perceptions

<sup>1</sup> Presented before the 1980 Annual Meeting of the Association for Asian Studies, Washington Hilton Hotel, March 21-23, 1980. Copyright by The Association for Asian Studies, Inc., 1980.

on global competition and apparent trends in competitive dynamics. We can then analyze how those trends might be influenced by U.S. strategies and policies. I will try to answer any specific questions you might have subsequently.

Japan and the United States are the world's two largest economies, accounting for over \$3 trillion in GNP and over \$400 billion in world trade. Their impact on the world economy, on trade patterns, on foreign exchange markets, on currency flows, in fact on our economic future, is profound. Yet, these two countries have contrasting postwar economic developments as a direct result of different economic policies. And in an interrelated world these developments impact world trade and countries who compete with them. More importantly, the adverse consequences of contrasting postwar policies and different competitive positions are presently exacerbated by a worsening of already poor U.S. economic policy in the face of superior Japanese competition. This competition is for global market share across a wide range of industries in which import, export, and investment strategies all play an important role nationally and corporately. In the near term, this competitive situation will continue to result in rising tensions between the two countries and in an unstable world trade and currency environment until some basic U.S. policy changes are made. The picture is not bright. Yet, there is hope if we can understand where we are, how we got here, and what we might do to fundamentally balance the situation on a long-term basis.

#### *Japan as a superior competitor*

The U.S. has lost its position as the world's leading industrial power by not meeting the competitive challenge of a better organized, more productive, and faster-growing economy, Japan. 1978 was the Watershed Year. At 190 Yen=one dollar, per capita GNP of \$9,500 essentially equalled the U.S. (\$9,600), while per capita GNP from manufacturing was 50 percent higher. Japan had an industrial trade surplus of \$77 billion compared to a U.S. deficit of \$4.8 billion. Her manufactured exports totaled \$96 billion, essentially the same as the U.S.'s \$100 billion. Although America has twice the population and GNP, manufactured shipments were equivalent too. In addition, her absolute gross level of investment was comparable at \$340 billion as was plant and equipment investment (\$144 billion versus \$148 billion). Investment rates about twice America's and higher real growth rates mean that Japan will clearly pass the U.S. as the world's leading industrial power in the early 1980's despite any exchange rate fluctuations.

Current U.S. policies have been woefully inadequate to meet its obvious competitive problem. Its bilateral trade deficit (excluding freight and insurance) which was \$5.5 billion in 1976 rose to \$11.8 billion in 1978. At the same time Japan's overall trade surplus was \$9.9 billion, and \$24.7 billion. Conversely, the U.S. overall trade deficit was \$7.4 billion and \$30.9 billion.

Examining just manufactures, the situation looks even bleaker, since almost all of Japan's exports are manufactures, though not for the U.S. The U.S. overall trade surplus in industrial goods of \$20.5 billion in 1975 deteriorated to a \$4.8 billion deficit in 1978 while Japan's overall surplus improved from \$44.3 billion to \$77.0 billion. The bilateral situation was similar, as Japan's manufactured goods surplus rose from \$7.7 billion to \$19.2 billion.

Nor should we take comfort from the 1979 decline in Japan's trade surplus due to rising energy, raw materials, and food prices and subsequently a falling Yen. Japan's absolute annualized investment levels remained comparable to the U.S. for the first six months \$339 billion and \$155 billion versus \$361 billion and \$159 billion. Her manufacturing trade surplus globally and bilaterally for the first nine months were \$52 billion and \$15.9 billion versus \$59.7 billion and \$15.6 billion in 1978, actually up on a bilateral basis. The increased price of oil accounted for a \$5 billion swing in Japan's import bill and food and raw materials another \$9.7 billion. Net dollar export prices were up 3.4 percent about the same as the U.S. The U.S. global surplus in manufacturing was only \$5.4 billion.

#### *U.S. competitive difficulties*

De facto U.S. postwar industrial and economic policies probably would have led foreigners to exploit U.S. competitive weakness. However, Japanese firms assisted by favorable government policies have been particularly successful. This will be beneficial to the U.S. if it focuses attention on competitive problems, the need for policy change, and a more successful model for competitive development. However, it is also worrisome given the probability of increased

tensions, continued U.S. weakness, and more pressures on the dollar if sound new policies are not rapidly developed.

Such tension and U.S. weakness also have serious strategic consequences for America's important military and political relations. If the U.S. defense budget must grow 5 percent per year in real terms to maintain or recapture strategic equilibrium with Russia, and the economy continues to stagnate, this will lead to intolerable internal allocation pressures by the end of the decade. Thus, the 5 percent goal may not be reached, resulting in a serious decline in our relative defense posture and U.S. world leadership. This in turn may force the Japanese to reevaluate their own position. Fortunately, the policies needed to increase growth and to make the U.S. more competitive would reduce both many domestic economic ills (e.g., stagflation, unemployment, and competing social objectives) and several international weaknesses. A more productive, more competitive, more efficient economy would alleviate inflationary pressures, create more jobs and provide a larger faster growing economic pie to support national goals, while reducing current and potential problems with Japan and others.

The U.S. must be able to compete with Japan for global markets if it is to retain the economic base needed to remain a dominant world power. This is an important national objective. The benefits more than justify it. Japan needs a strong and predictable ally. The U.S. needs better Japanese relations, an improved payments balance, a stronger dollar, and reduced world economic tensions. To achieve this, the U.S. need not remake itself in Japan's image. Profound historical, political, and cultural differences prevent this. The economic fundamentals required are actually straightforward and within our grasp. The political will and educational follow-through are what is difficult. The only adequate response to the competitive challenge is a fundamental political economic reorientation: a substantial resource allocation shift towards investment, trade, and technology and a change in regulatory policies and in the sharing of regulatory costs. This in turn must be combined with an increased appreciation by American business of the importance of global market share.

The reasons for our bilateral and global imbalances with Japan are the same. Many major U.S. industries are declining competitively. World trade in the manufactured goods primarily produced by major industrial countries is dominated by a few large multinational companies who compete for the same markets. In the U.S., some 250 firms account for over 75 percent of U.S. exports. In Japan some 200 firms (not including trading companies) account for roughly 64 percent of exports. These companies compete for sales in the U.S., in Japan and in third markets. A loss of export sales by GE or GM to Hitachi or Toyota in Saudi Arabia has as much negative impact on the U.S. payments balance as a loss in the U.S. or Japan. We have lost such sales. To decrease our trade deficit, major U.S. exporters must be more competitive domestically and internationally, and must understand the strategic use of foreign investment. But they also need government assistance and incentives.

Japan sells little we do or could not make. Yet we have a massive bilateral deficit in manufactured goods, with no discrimination against U.S. manufactures in the U.S. market. We suffer from excessive imports and declining domestic competitiveness in addition to any difficulties exporting to Japan. A Boston Consulting group study for the Treasury indicates the U.S. has lost market share in Japan to the EEC and more developed Asia as well. Yet, those U.S. firms that have been successful in Japan have all had global strategies (e.g., IBM, TI, Boeing, Caterpillar, and Coca-Cola). Those U.S. firms that have had competitive problems, often resorting to "fortress America," have not (e.g., steel, shipbuilding, heavy power generation, and consumer electronics). The former have often used a proprietary position and/or technology to force entry to Japanese markets, the latter have not. The difference between RCA and TI or IBM in this regard is striking.

The lessons are clear-cut. Markets for traded commodities are global and decreased competitiveness is reflected in all markets, domestic and export. The impact on the U.S. deficit is doubled. We lose export earnings, and increase imports. Also our major corporations are weakened because the competitive problem is continuous. Increased sales improve a competitor's productivity. The largest Japanese firms with the largest domestic share have the largest export share too. The marginal U.S. firm competes with the most successful, most efficient Japanese producer. The small U.S. firm's lost market share in turn helps develop the large firm's global competitive position against the leading U.S. industries from rationalizing production exacerbates this. The biggest Jap-



anese inroads into U.S. domestic and export markets are in industries where economies of scale in production and/or marketing are important, and where there are small inefficient producers, or major producers serving only the U.S. market.

However, just as Japan was able to develop viable economic policies and strategies out of the necessities she faced at the end of the Wars, it is certainly possible for U.S. officials and businessmen to develop an appropriate and coherent set of competitive and strategic policies to offset actions that have raised user costs and lowered normal productivity increases, and to improve on historical performance as well. But to do this correctly, we must have a good understanding of Japan's competitive thrust and its possible future direction.

*Japan's balanced approach to competitive dynamics and economic policy*

At the end of World War II, Japan's economy was devastated. Her government faced the challenge of providing a living for a large population further expanded by returning soldiers and colonists. With little arable land and few raw materials, this meant developing an internationally competitive industrial sector which could supply domestic demand and could export to pay for required food, energy, and raw material imports. Further, given the economy's labor intensity, any upgrading of income depended on becoming efficient over time in more capital and technologically intensive industries. These goals logically required targeting key industries and achieving high growth and productivity rates. This in turn necessitated high investment rates which to be noninflationary required high savings rates. The government, therefore, undertook to change savings and investment rates through monetary, fiscal, and tax policy actions and to stimulate a funds flow initially toward industries like shipbuilding, steel, fertilizer, and power generation and later as the economy grew and developed towards chemicals, petrochemicals, autos, and computers. This reflects the well-known industrial sequencing and product cycle development of an economy over time under conditions of economic growth. The government ran a fiscal surplus, increasing aggregate savings, while aggressive monetary policy encouraged corporate debt financing. This lowered after-tax capital costs and stimulated investment, particularly in heavy industry. The result was a flexible financial system generating substantial savings readily allocated to high growth areas.

These policies' success is well documented. Japan achieved very high real growth rates and low unemployment rates with remarkable wholesale and export price stability. Of course, this success questions some traditional U.S. economic assumptions. Long-term savings and consumption rates were not relatively fixed by institutional and cultural factors.

These parameters were changed over time given changes in policy incentives affecting savings and investment such as depreciation allowances, real after-tax rates of return, government regulations, and so on. Japan didn't have the luxury of looking at historical statistics in a relatively unchanged cultural environment to create a circular self-fulfilling prophecy. They had to increase savings and investment levels, and they did, from 20-25 percent of GNP in the early 1950's to over 40 percent in 1973.

These dramatic changes in savings and investment rates radically changed relative factor endowments between capital and labor. Therefore during the postwar, Japan logically gained comparative advantage in more capital and technologically intensive industries, raising incomes and living standards. Therefore, comparative advantage was also variable over time and subject to policy manipulation. Product cycles occur due to economic growth, and governments can affect the speed with which they occur through policies impacting savings and investment and thus growth. Interestingly, in the early 50's, the Bank of Japan and the Ministry of Finance argued Japan should not develop an automobile industry because Japan's comparative advantage was in light labor intensive industries like textiles. They should export textiles and import autos. This was essentially a traditional Western view using comparative statistical analysis. Fortunately, MITI took a more pragmatic and dynamic view of where the economy ought to go and how it should get there. MITI won the debate.

But the government did not try to control the economy. Rather they led it through incentives and logical persuasion. Perhaps they had learned this lesson from their disastrous experience with attempts at rigorous economic control during the War and under SCAP. In any case, general incentives to growth, investment, exports, price competitiveness, productivity improvements, expand-

ing markets, and more growth were offered to all firms in an industry or sector, primarily via tax and monetary policy. The faster growing more successful firms benefitted more from these incentives which further improved their performance and often led to rapid consolidations not opposed by anti-trust policies. Further, high growth rates contributed to the fiscal surplus that was rechanneled back into more productive investment. Japan predated the current "incentive economics" by thirty years, and is living testimony to their validity.

Japan observed a real world competitive environment where there were economies of scale in production, marketing, and distribution for capital and technologically intensive industries. Developing internationally competitive firms, therefore, required oligopolistic competition if costs were to be lowered, markets developed and the investment-growth cycle continued. Both government officials and businessmen recognized that global market share would positively affect profitability, growth, and competitiveness, domestically and internationally. Managers found that exports improved cost position in both export and domestic markets. Classical theory's perfect competitor wasn't a factor in the international markets for sophisticated manufactured goods. Thus, it wasn't practical or effective to pursue financial or regulatory policies favoring him.

Because she had to, Japan recognized the implications of changes in industrial structure that had occurred in modern economies and the dynamic possibilities offered. In turn, her successful policies and strategies changed the world's economic environment by establishing internationally competitive firms with high investment and productivity rates that priced aggressively to develop markets. But the key has been that Japan's policy makers observed the real world in developing their theories and policies. This is how they achieved their economic objectives, initially to survive, and later to raise living standards and the quality of life.

Japan has balanced supply and demand management by monitoring the real micro economy, the monetary economy, and their interaction. Emphasis has been on real economic factors such as establishing internationally competitive industries with real productive capabilities. Foreign exchange, fiscal, and monetary policies have supported these objectives through underwriting demand and providing required financial resources to fund noninflationary investment demand. These policies and objectives have also been coordinated with regulatory policies affecting pollution, safety, and so on.

This is viewed as a dynamic process. Policy to change an economy's structure and comparative advantage must recognize the economy as continually evolving. Therefore, views and policies on the appropriate target industries, industrial structure, living standards, and so on are constantly revised and upgraded. Summarizing, Japanese officials, businessmen, and labor leaders understand the need to plan and prepare for the economy's natural development. Currently this means phasing out of light and even certain capital, but energy-intensive, industries into more technologically sophisticated and knowledge intensive levels of production and employment (e.g., computers, semi-conductors, telecommunications, software systems, engineering, etc.). Japan understands that the declining cost of technological transfer combined with the faster growth of light and certain base materials industries in the LDCs means that Japan is rapidly losing absolute and comparative advantage in these industries. But since Japan views growth and change as positive, she is not opposing these economic forces. Rather she is trying to encourage and cushion their impact. Imports are being fostered to keep living costs low, while the government helps firms to scrap obsolete plant, modernize, and enter new industries. Firms are also investing overseas to keep their export markets through lower cost production bases, but retain marketing, design, engineering, and equipment support. In this way firms upgrade their employment on an intra-industry basis while globally improving their overall corporate competitiveness. Just as successful Japanese managers saw that exports extended the beneficial cycle of investment, productivity improvement, cost declines, competitive pricing, market expansion, and more investment once high domestic demand slowed, they now view foreign investment as a logical strategic extension to maintain global markets and to promote corporate development.

Since macro-economic results are generally made up of micro-economic events, the effect of these developments in recent years has been to rapidly increase Japanese direct investment abroad. This explains why the government wants foreigners to look at Japan's basic balance rather than her trade balance. Japan needs a trade surplus to fund its services deficit and its growing long-term capital

outflow. Japan's positive technology balance with the LDCs is an adjunct of this evolution. Though the economy is currently in transition, the ultimate impact of these policies and Japan's economic evolution will be to foster Japanese MNCs worldwide competitiveness even though the direct production source may be other countries. This represents the multilateralization of Japanese competition with respect to global market share with the more sophisticated managerial, engineering, marketing, and production work remaining in Japan.

Simultaneously, with a continuous upgrading in employment opportunities and the quality of life, these policies will create a positive outlet for Japan's excess savings. It will also reduce her trade surplus and long-term yen appreciation pressure as some export growth is shifted overseas. Monetary policy, foreign exchange controls, fiscal expenditures, and tax codes as before will be manipulated to achieve this scenario. Special reserves for overseas investment, subsidies for industrial restructuring, changes in foreign bond issue approvals, are already being used to keep the business capital costs for foreign investment low and to support the yen. Further, because real savings and investment rates and thus real growth and productivity rates will continue to be higher than current U.S. levels, competitive restructuring should take place rather smoothly at lower rates of interest and inflation than America. Simultaneously, real standards of living, employment opportunities, and Japanese global, competition should rise more rapidly. Moving declining industries offshore naturally contributes to this beneficial cycle as fewer resources are channeled to low growth sectors. The overall growth rate, therefore, remains higher, and growth facilitates structural change.

Continued high savings rates and low user capital costs remain the key to restructuring. They make possible relatively high domestic growth rates and substantial foreign investment without sacrificing continued competitiveness and modernization in basic strategic industries. An example will contrast Japan with the U.S. as to the effect on inflation of wage settlements and government regulations given differential savings rates. In the U.S., government pollution and safety regulations have increased industry costs and decreased productivity. Because wage settlements are negotiated on the basis of anticipated historically-based, productivity improvements plus a COLA, the effective interaction of wage settlements and regulations has been an upward spiral in prices and nominal wages as productivity has fallen short of anticipations. Japan, conversely, has benefitted from even stricter pollution regulations. Mandated expenditures have used up excess desired savings, raising overall GNP growth while developing a new industry and technology for which there is rising worldwide demand.

To compensate the U.S. should allow expensing or very rapid write-offs of pollution-related expenditures. Tax credits might be considered to compensate for Japan's competitive edge. Currently 3-4 percent of U.S. GNP goes to all regulations, but it is only investing 17-18 percent compared to Japan's 30 percent. Competitively, America's economy and industry can't handle the relatively higher diversion of productive resources. Such tax policies would also force lawmakers to make the appropriate budget/benefit trade-offs for various regulations. But strategically this must be supported by more savings.

Given Japan's planned economic direction for the 1980's, the likely sources of global competitive friction with the U.S. and U.S. corporations are likely to be:

1. World competition and Japanese liberalization in high technology manufacturing industries like computers, semi-conductors, telecommunications, and aerospace where Japan will try to build on its existing strength in plant and equipment, consumer electronics, automobiles, etc. as demand segments for distributed processing and microprocessors.
2. Future competition and the need for significant Japanese liberalization in high technology and/or knowledge (skill) intensive service industries like software systems, management services and systems, banking, insurance, and so on. The issue of national reciprocity will probably be important here.
3. U.S. market competition with exports from Japanese investments in third countries like Brazil, Mexico, Korea, Taiwan, and so on.
4. Competition from new, highly productive Japanese investments in the U.S. in mature industries where U.S. business in many cases has inefficient capacity (e.g., autos, TVs, ballbearings, etc.).
5. Competition for global resources including energy though there is an opportunity to use Japanese capital resources to develop alternative U.S. energy resources to the economic, political, and security benefit of both countries.

Illustrating these trends is the apparent transitional strategy of Japan's steel industry. This industry, of course, formed the basis for Japan's competitive growth in the 1950's and 60's through its competitive development and positive interaction with shipbuilding, machinery, and later autos. Currently it is trying to keep its existing capacity competitive (it has 37 BOFs of over 2000 cu.m. capacity versus five for the U.S.) through more productive investments and modernization in Japan (e.g., continuous casting). But this is coupled with selling plant, equipment, and technology overseas. They often take an equity or management position as well. In 1978 Nippon Steel had over \$1 billion in engineering revenues while we are all familiar with Sumitomo's technical assistance to U.S. Steel for its wide diameter pipe mill in Texas.

*The required U.S. approach to Japan's global competitive challenge*

So how does the U.S. solve its current economic and competitive problems? The following seems a constructive first step given that current challenges have created opportunities for rethinking basic assumptions about economic reality.

The U.S. must begin to shift real resource allocation to achieve a more rational regulatory burden sharing and to improve savings, investment, technology, and productivity. Though resources will come from business, consumers, and government, the shift is highly dependent on government policies and initiatives. In addition, the U.S. needs a different conceptual framework for formulating economic policy analogous to Japan's which recognizes that:

1. Growth and economic change are basically beneficial.
2. Successful economic policy in a modern complex industrial society is a long-term proposition. Long-lead times for major capital investments, retraining, and economic restructuring require long-term planning and consistent economic and regulatory policies.
3. Economies, industries, and markets differ and constantly change and develop, creating risks and opportunities. So policies must be both dynamic and industry specific. One firm or industry's difficulties or success can be masked by macro-economic variables such as the Balance of Payments or the unemployment rate. Yet, its performance can have significant political or strategic consequences (e.g., Lockheed, Penn Central, Chrysler, or Youngstown Steel). Industries and firms are not homogeneous in terms of factor inputs, economics, development stages, and so on. Policies to be successful in the aggregate must pay attention to such differences and yet integrate them into an overall strategic framework that relies on incentives rather than legislative compulsion. This means the government should pursue selective favoritism according to strict criteria, promoting key emerging industries or those strategic for the economy and defense. Producing firms should be as efficient and internationally viable as possible. A service economy still needs an efficient and competitive industrial base. Supporting losers is expensive and counter-productive. Some favoring of particular industries is inevitable. The U.S. should change its focal point, however, to favor those on the cutting edge of industrial development. This facilitates growth, competitiveness, and industrial restructuring. Declining industries should not be propped up by tariffs or quotas and industry rationalization should not be blocked by anti-trust as long as international competition will keep prices down. A large declining industry eats up productive resources at low rates of return. These are resources America can't afford to waste. America must overcome its fear of corporate bigness and take a global competitive view. A large and growing world economy requires this, especially where economies of scale are competitively important. Theory must be dynamic, and policy must be thought through consequentially.
4. Markets are multinational. Thus policies must reward competitive success domestically and overseas, and must encourage global competition.
5. Countries have different regulations; so regulatory policies, including anti-trust, must be flexible and consider the cost competitive impact of each regulation.
6. The keys to long-run economic success are a high savings rate and high investment levels leading to solid growth, productivity improvement, low inflation rates, international cost competitiveness, and a strong currency. Therefore, policies must promote savings and investment.
7. Government interference in today's complex society is inevitable but it should be limited and should emphasize direction rather than control. To

accomplish its objectives, government needs to cooperate with business and labor.

This can lead to specific policy recommendations such as balancing the budget to increase savings, eliminating double taxation on dividends to lower business capital costs, introducing tax incentives to encourage international competition, allowing tax breaks to offset regulatory costs, giving real after-tax rates of return on savings, and so on. Such measures will improve our competitiveness in world markets. In addition, such a viewpoint can help us to clearly see the inadequacies of present policies implemented to solve our economic ills. This would include floating exchange rates, trade-related pressure tactics, promoting export consciousness, the present energy program, and the November 1978 and October 1979 dollar support packages. None of these address the fundamentals. They will not change investment levels, productivity, resource allocation or long-term global market share. At best they offer time to improve investment, growth, productivity, and export competitiveness. At worst, they aggravate present difficulties, leaving few options for future maneuvers. Because we do not live in a policy vacuum there are competitive time pressures. We cannot gradually introduce or postpone a new program. Japan has had an appropriate one in place for some time with adverse competitive consequences for the United States. While we have printed money to pay for imports, the Japanese have strived for export competitiveness. Quite logically their policies have been almost the opposite of ours. Here is why Japan sees our policies as lacking.

1. Floating exchange rates have little competitive impact if fundamentals are unchanged. Large Japanese firms can absorb much of the change where imported raw materials or overseas marketing costs are a large portion of the prices. Revaluation primarily hits the marginal producer in marginal industries, rationalizing them and improving the leading producers' competitiveness. Revaluation stimulates cost savings and modernization while reducing inflation and interest rates. Highly leveraged Japanese firms benefit directly from low cost credit. The reverse situation is true for the U.S. Rising exchange and interest rates raise both supply costs and domestic demand. Floating rates only offer a short-term adjustment, or a one-time opportunity to improve market position. New rates must be followed by appropriate changes in the fundamentals to provide any long-term assistance. At worst, floating rates act as a policy opiate continuously but unsuccessfully trying to substitute for basic change.

2. U.S. pressures on Japan to grow faster or to liberalize imports have a marginal impact on U.S. competitiveness. Japan's and Germany's postwar history shows that exports have expanded faster than imports in periods of high domestic growth, reflecting greater cost competitiveness from higher investment rates and productivity improvement. In the U.S. where economic growth has generally been demand rather than supply stimulated (e.g., government expenditures, devaluations and tax cuts, rather than increased investment or productivity), growth has meant more imports as the U.S. has run into supply constraints. The U.S. increased its marginal propensity to import since 1965 from about 3 percent to 8 percent as a result of the Vietnam War and the Great Society programs followed by increased regulatory costs, environmental expenditures, and energy shortages. This has exacerbated and interacted with the compounding inflation rate and a declining dollar. America shouldn't however, project its policy views onto others. Currently Japan is pursuing its expansion plans via aggressive monetary policy and more public works (an investment approach similar to past policy).

3. A more open Japanese economy or more export-minded U.S. companies is not sufficient to rectify the situation either. America must first be cost competitive across a broader range of industries. Arguably opening Japan could help emerging or existing competitors in third countries while further rationalizing Japanese producers, making all more effective competitors vis a vis the U.S. (So far in 1979, for example, Japan's bilateral manufacturing surplus is up though its overall manufacturing surplus is down.) Nor is it clear that the problem is U.S. firms' low export consciousness. The leading 250 American Exporters account for over 75 percent of U.S. exports. This averages \$476 million per firm, and compares favorably with the leading 200 Japanese firms' average of \$214 million. Thus, several U.S. firms are competing successfully on a global basis. In many major industries, though, American firms have difficulty competing in the U.S. much less Japan.

Greater export incentives, export consciousness, and liberalization are important and would be beneficial if achieved. But they are not the crux of the competitive problem since export competitiveness depends on a competitive domestic base. And continued domestic competitiveness requires growth in productivity. Loss of global market share is more understandable given Japan's higher savings and investment rates and a rise in Japanese wholesale prices from 1975 through 1978 of only 3 percent while U.S. prices were up 20 percent or given Japanese export price declines in Yen terms of 12 percent versus U.S. dollar export prices up 27 percent.

4. Attribution of the payments problem, U.S. inflation, and reduced U.S. competitiveness to oil imports and OPEC is also somewhat misplaced. U.S. energy prices and oil imports relative to GNP and population remain well below Japan and Germany. These countries pay higher domestic oil and energy prices while running large trade surpluses and maintaining relatively low inflation rates. Actually, the U.S. potentially has a comparative advantage in energy intensive industries. Competitively, Japan and Germany pay more per btu than America does. The error has been mandating increased costs for oil energy substitutes (e.g., the cost of coal and nuclear generation plants rose 400 percent per kwh between 1969 and 1977, of which 300 percent was directly due to regulation.) The U.S. needs a rational energy policy and should reverse or offset the producer of regulatory constraints that have made alternative energy sources like coal, and nuclear more expensive than oil and gas.

5. Finally, the dollar support packages do nothing to charge basic resource allocation, while higher interest rates potentially discourage investment and without a major recession raise costs and prices. Indeed, the current wisdom says the only way to whip inflation is to cut Federal expenditures and tighten the monetary screws to wring inflation out of the economy at unacceptably high levels of unemployment despite political difficulties. This view indicates our total involvement with demand management, and cogently illustrates the traditional policy problem described by the Phillips curve, pitting jobs against price stability. To me this proposal seems politically naive given government support for employment. It also seems to reflect a Calvinistic bent in conservative economists advocating it. The nation must suffer for its past excessive living style and profligate consumption patterns. In fact, Japan's experience and common sense tells us we can have rising living standards, high employment rates, and price stability if we only generate enough savings and investment so that productivity increases and more efficient supply capacity can meet increased demand at stable prices. If supply and demand curves move right together, price stability can be achieved at higher levels of output and employment. Policies balancing demand and supply can solve Phillips' policy dilemma. Like two parts of a scissors they can cut an internally consistent and acceptable pattern of economic goals.

In sum, while current policy approaches may have some validity and benefit, as a comprehensive program to deal with the essentials of the global competitive problem they are inadequate. Failure to change them means a continuation or worsening of the present situation. Dynamically, declining competitiveness depreciates the dollar and raises interest costs, an adverse cycle promoting further depreciation, a lower standard of living, more inflation, and a weakened world position, economically, politically, and militarily. The following is indicative of our present performance and the required direction of change:

1. U.S. gross fixed capital formation's share of GNP is the lowest of any major industrial country (17 percent), little more than  $\frac{1}{2}$  Japan's.
2. Personal savings rate is also the lowest—about  $\frac{1}{4}$  Japan's.
3. U.S. R and D's share of GNP is declining while Japan's is rising.
4. Despite Japan's recent "recession" due to an excess of desired savings relative to investment, Japan's real growth rate has equalled or exceeded U.S. rates since 1973.
5. From 1975 through 1978 U.S. wholesale prices were up 21 percent versus Japan's 3 percent, and export prices were up 27 percent versus Japan's decline of 12 percent.
6. Japan's trade surplus from 1975 through 1978 was up \$19.7 billion; ours was down \$40.9. The competitive consequences of a superior policy framework are real, direct, and obvious.

### Summary

The solution to U.S. competitive weakness in world markets via a vis Japan really requires a reallocation of national resources and a concern with global market share. While Japan has put its funds into investment and technology, America has consumed not only a larger portion of its real GNP but some of its existing capital stock. U.S. firms have fallen badly behind in the rate of productive investment and technological improvement, and are now falling behind in absolute levels as well. Government in Japan has cooperated with industry, has promoted rationalization and international competitiveness, and has directly and indirectly cushioned the cost competitive impacts of mandated expenditures and regulations. The U.S. has not. If U.S. policies do not change then Japan's competitive differential will remain and compound. Lower savings and investment rates mean declining productivity, more inflation, less research, a weaker dollar, higher capital costs, increasing world economic tensions, rising internal dissatisfactions ad infinitum. Continued government regulations for their own sake without appropriate political trade-offs, cost/benefit analyses or user cost offsets exacerbate this. Reduced to its simplest terms, the economy's rational and coordinated management is an economic and political necessity for survival in a competitive world. What is needed is balance between supply and demand management, where regulatory, tax, fiscal, and monetary policies are concerned with their impact on both sides of the equation. The idea should be to stimulate a resource allocation that will move supply and demand right in tandem. We cannot focus just on demand or supply.

Rapid real economic growth worldwide has created a new context. We live in a mixed economy where some government interference is inevitable and beneficial. Yet, we can ask that this be intelligent and appropriate, that economic policies be effective and that theories reflect changes in the real economy. This is what we can learn from Japan.

Such a major change in political economic ideology requires government, business, and labor to work together on a national reeducation effort. As noted, the alternative is not attractive: increased world economic tensions, declining U.S. credibility, and increased internal squabbles over a smaller economic pie. Any analysis of competitive policy interaction will lead to this conclusion because Japan cannot be expected to alter its logical systemic formula for economic success. America's fate therefore remains where it always has been, in its own hands. Only if we can meet this challenge to ourselves, will the world as a whole benefit and will the 1980's be other than a worsening continuation of the 1970's.

Senator ROTH. Mr. Rapp, I believe in some of your earlier articles you have described Japan as an early convert to supply side economics. I wonder, what did they do and what can we do to follow their example?

Mr. RAPP. I would agree that they were an early convert to the supply side of economics. But I would also like to stress that they kept a balanced view. And one of the reasons they have taken this approach is that they were also prepared, if the economy went into a situation where there was excess supply, to generate the demand stimulus that would be necessary to justify the increase in supply. So they are playing both sides. But I would say that it goes back to the point I made before that they recognized very early on that they had to have a competitive industrial structure and the only way to do that was to go down into individual industries and formulate policies that were appropriate to each industry in order to make those industries competitive on a global basis. And I think that's exactly the way we are going to have to do it.

We are going to have to look at the automobile industry. We are going to have to look at the steel industry, the computer industry and so forth, and decide what those industries need in order to be competitive on a global basis, and then begin to adopt policies that are necessary to make that happen.

Senator ROTH. In some hearings held yesterday, we got into the question of the need for this country to maintain certain basic industries such as steel, automobiles, and other metals. Do you think it's possible for the United States to become competitive in world markets again through taking the measures that you're outlining?

Mr. RAPP. Yes; I think it is. I think in fact the Japanese are basically proving that because as their wage rates go up they are still able to remain quite competitive in automobiles and steel and so on because of their high degree of modernization. But this is what it's going to require, a tremendously high level of investment in modernization in our plant equipment.

Senator ROTH. One question that I have is that you talk about the long-term perspective being uppermost in the planning of Japan, whereas here we tend to, both in government and I would say in business, take the short term. One complaint that I've heard from the Japanese businessmen about American business is that they are too concerned about the profits and losses for each year, partly because of SEC rulings, as well as others. But how do we develop this long-term perspective? As you point out, I think this country can follow the Japanese pattern for the reasons spelled out in your statement, but do you have any suggestions on how we could begin to develop a long-term approach?

Mr. RAPP. Well, I think what we have to do is start off with the idea of we're not actually a goal-oriented country. At the same time, in the beginning of the early 1960's we decided we wanted to put a man on the moon by the end of the decade and we did. We're talking about a situation where we're trying to turn the U.S. economy around. That's at least a 10-year perspective, too. We probably need a savings rate in this country of somewhere around 25 percent of GNP. That can't be done overnight. So we are going to have to institute long-term policies to do that by 1990.

Senator ROTH. What is the current rate?

Mr. RAPP. Seventeen to eighteen percent.

Senator ROTH. You're talking about another 7 or 8 percent. What does that amount to in billions of dollars?

Mr. RAPP. Well, we're operating on a little over \$2 trillion economy, so that's roughly in current dollars about \$150 billion more in savings and investment.

Senator ROTH. Does it bother you that currently on book tax revenue will double in the next 5 years?

Mr. RAPP. Yes; it bothers me because it seems to me that the policies that we are pursuing are very similar to what would happen if we were stockholders in a growth firm or a firm that was basically in a growth market where they were having to grow at some rate because the competitors were growing at that rate. And we, as shareholders, decided we were going to take a high dividend payout and are going to consume that high dividend payout. Over a period of time you're not going to be able to make the payroll or the investments to keep up with your competitors and you're going to fall behind. Then to the extent the shareholders feels he wants to maintain his standard of living he is going to keep taking his bit which worsens the problem, and that's exactly what the Government is doing in terms of its tax policies.

It's basically taking an increase in dividends out of the economy



without seeing that down the road, if it doesn't make the investments in the economy that are necessary to be competitive, there won't be any economy to take dividends out of.

Senator ROTH. Mr. Rapp, you say that the Japanese success is partially from the fact that they upgrade and utilize existing research and development undertaken by other countries. Does that infer then that perhaps we don't adequately protect our rights to new developments and research?

Mr. RAPP. I think we protect our rights as much as we can. I think Mr. Verity has a good example in continuous casting which is clearly a way of increasing productivity. The Japanese are just investing in that at a much higher rate than we are because they have the cash flow to do it. However, I believe that that's a European technology so it's not even ours to protect.

Mr. VERITY. It's a European technology that's really been perfected by the American and Japanese industries who took a small unit and have been able to develop it for any product now, and that has really to be a United States contribution to new technology.

Senator ROTH. But the charge is made continuously that this country in particular, but Western European countries as well, develop a new product and the Japanese upgrade and introduce a better product whether it's a piano or a highly technical instrument. How much does Japan spend for research and development?

Mr. RAPP. Right now it's about 1.5 percent of GNP.

Senator ROTH. And we spend how much?

Mr. AHO. Two and a quarter percent.

Mr. RAPP. But if you break it down on an industrial basis, they are spending a higher percentage.

Senator ROTH. We are?

Mr. RAPP. They are spending a higher percentage because most of their R. & D. is industrial based.

Senator ROTH. Would any of you other gentlemen care to comment on what steps we can take to try to promote the long-term perspective? I don't think any of us want Government planning. I don't think it would work. What it would do is politicize the process. Senators would want every new industry in his community. But how can we move away from this short-term process that seems to characterize both government and the private sector?

Mr. VERITY. I think it's a national problem, Senator. I believe that you have hit on the fact that we need to get cooperation from Government, labor and business. That's easy to say, but how do you do it? I think you do it by having consistent policies.

One of the problems with investment in our country has been the changes that occur in the tax laws and other things so you start out to make an investment thinking long term and during the middle of the investment the tax law changes or they pull this and that. So if we really want to make headway, I think that we need to develop some consistent policies, particularly in taxation, which is extremely important in the capitalistic system so that we know what the ground rules are and then we're assured that the ground rules are going to stay that way for 10 or 15 years or whatever.

The Japanese have had a consistent policy. They have, as Mr. Rapp just said, said we are going to support the high growth and the low

growth because employment is very important. So they have kept both sides healthy. We need to take a good look as we're doing here in the National Export Policy Act, which I applaud you for, where we're putting in one bill all the things that need to be done to get Americans attention back on exports. It's a marvelous educational tool, and it's one that I hope will result in a reaffirmation by the American people that we have been asleep at the switch—labor, Government and business—and we'd better get on with it, and I think that's what this bill does in exports and I think it's good.

Senator ROTH. It seems to me that the problem the committee faces in this country, in the last 20 years, has been more concerned on income redistribution than growth. We have to establish growth as a basic goal and policy in this country and then try to adopt policies that will promote intelligent growth that will provide jobs.

I agree with you, Mr. Rapp, that one side of the coin is that improving productivity and becoming competitive in world markets raises all the problems of taxes, of regulation, and I agree with you, Mr. Verity, that we've got to have some consistency and some certainty in the picture if we're going to create an atmosphere for real growth. The other side of the coin is, however, exports and developing policies to promote it. I'll have to admit that I'm encouraged in the sense that there's a lot more interest and a lot more attention being paid to export policy, as evidenced by the fact that we have had this many people come this morning for this kind of hearing. This is a sign that there is interest about the matter. At the same time, it seems to me time is not on our side and all of us in Government, business or labor are working too slowly.

One question I'd like to ask any of you, how can we get local commercial banks more aggressively involved in providing export financing and services to local exporters setting aside the problem of the Ex-Im Bank? Can you suggest ways to better involve local commercial banks in the export process? What about tax credits, subsidies, lower discount rates on reserve requirements? I'm not necessarily recommending any of these. I'd just like to get your thoughts on how we can get banks more actively involved.

Mr. VERITY. If the Export Trading Act should pass, and I hope it does, it would seem to me if it passes as it is that we will very definitely be involving banks because banks will be working with small and medium size businesses to open up markets. They will be part of the financing scheme. They will be totally involved in attempting to open up new markets and I would think that is probably the most practical way to involve the banking system in exports.

Senator ROTH. Do you have any comments, Mr. Rapp?

Mr. RAPP. I would like to second Mr. Verity's comment. I think the Export Trading Act is a very good way of getting local banks involved. I would also like to say that banks are very aggressive marketers and if the potential was there to finance exports I think everybody would be out looking for it.

Thus, getting back to our problem, if we were competitive, I don't think there would be any problem with financing.

Senator ROTH. The United States is the only major country that taxes the foreign-earned income of its citizens. We hear a lot of comment to the effect that this taxation of Americans living overseas is a

major deterrent to U.S. exports. The Joint Economic Committee heard this time and time again in its East Asia study mission. The rationale is that Americans involved in purchasing, equipping, or design decisions are familiar with U.S. goods and technology and tend to specify and order American equipment and services. If these highly taxed Americans are replaced by nontaxed third country nationals, as is happening, we lose an important marketing base. What do you think of this rationale? Should we reduce or eliminate taxes on foreign earnings of Americans? How important a factor do you think this is in deterring exports of American goods? Mr. Rapp, do you want to start?

MR. RAPP. Well, I can only speak for our own case, but it costs us anywhere from two to three times as much to send somebody overseas as it does to have them here in the United States. So that means we only send over a very limited number of people. So our ability to go out and generate business for the bank which ultimately amounts to increased service income for the United States is limited because we only have a certain number of people we can send overseas. Further, one of our great areas of growth potential is in project financing, which usually involves large purchases of plant equipment from the United States and other places and you really need some very skilled individuals to be able to do this, but we can't afford to keep those people overseas.

MR. VERITY. I'd like to give you one example, Senator, because I think this is one of the truly foolish disincentives that we have built into the system, even though it may have been well intentioned.

Two years ago I visited with the American consul there who said at one time there were 270 Americans working on various projects in that emirate, and they were down to 8 because of this law. Now we not only lose that presence but he said just a simple example is, instead of selling Campbell soup we're now selling Nestle soup. All the things that Americans would buy are disappearing because there were now Italians, British, Swiss or Japanese there. It seems to me it's that kind of thing where we're shooting ourselves in the foot all the time that we ought to stop and get on with making America just as competitive as we can in every way we can.

Senator ROTH. Do you have any thoughts on that, Mr. Aho?

MR. AHO. It's a very difficult question to quantify—the impact of these tax regulations. We hear a lot about it but the evidence is all anecdotal. It's hard to tell if the consumers preference just changed and they decided to switch soups.

The "local presence" argument has been made for a number of years that if we had sales and servicing subsidiaries and workers overseas, we would export more. It's very hard to say how much, though.

Senator ROTH. Certainly the American ambassadors that I have talked to feel quite strongly that it's a major deterrent.

The last question I have is what advice or how can we get not only our major businesses but our small businesses as well as other segments of our community interested in trade? How can we make this a top priority? Are there any steps we can make in export promotion through Government that you would recommend at this time?

MR. VERITY. If you're looking at me, Senator, I think this does have a national priority. As you know, the chamber has adopted three priorities for our agenda of the 1980's of which trade and export is one

of the major efforts. We believe that we can be helpful in taking this message to all of the local chambers of commerce around the country, of which there are 3,000. We have other associations numbering around 1,500 where we have been recently and will continue to do so over the next several years where we point out how important exports can be to their local small businesses. But this has to be done in conjunction with the Department of Commerce's export offices and a promotional program by both business and Government in cranking up everything we can do to point out the values of exports, what it means to the Nation, and get people focused on it so it has to be I think a well coordinated effort.

Tomorrow, as an example, we are going to be in Cincinnati meeting with the local chamber of commerce, the district export offices from the nine areas around the Midwest, and the regional chamber, all talking about how do we do this and how do we encourage small business to get more interested, how do we promote it, and how do we not duplicate what's already in effect. We're going to use the Department of Commerce but we also are going to try to have additional promotional efforts through John Caldwell's group and through other parts of the chamber.

Senator ROY. I might say that your Far East Chamber has done an outstanding job. As you know, it was through their activities that the study mission went abroad, but I think long before that they had been very much on the cutting edge.

Mr. VERRY. You had a chance to visit several of them, didn't you?

Senator ROY. That's right, and I think if we could get other organizations as active it would be very helpful.

One additional thing. I don't know how many have read the last issue of Business Week, the article on U.S. export policy. I still continue to be dissatisfied with the reorganization. In fact, the reorganization to me sort of symbolizes our problem with exports, that we take a small step forward—I'm not sure that was a forward step—I hope it was—but we don't really do anything dynamic. I don't see how you're going to make trade a principal goal until the President himself makes that a major goal, and I think that's a problem not only with this administration but in the past as well. If anybody asks him he says, "Yes, it's important," but the follow through certainly is not there of the measures that are essential if we're really going to make trade important. I would urge you gentlemen—I won't ask you now—but I can just speak for one Senator next year who's going to be taking a hard look again—I think we've got to restructure the Government machinery in some form that will give trade a higher priority. I think one of the problems we have today as I anticipated when the current reorganization came down is it created a two-headed monster much like we had in foreign policy—who's the Secretary of State—the NSC or the Secretary of State? Who's in charge of exports, the USTR or the Secretary of Commerce? In theory it may seem practical, but I don't think it's working out in practice, and we're still going to have to go to make some kind of consolidation, with the top guy having hopefully the ear of the President. I know of no other way you're going to get the kind of national priority that I think is essential.

Mr. VERRY. I would certainly agree with you, Senator, and we would do everything we can to support that view. Our problem is now

we have not just those two agencies but others, and we need one man who really could be the spokesman for the President on exports and who has the necessary authority to do so.

Senator ROTH. Do you have any other comments, any of you gentlemen?

Mr. RAPP. I would just like to make one little comment on export incentives. It seems to me that you have to do something to lower the perceived risks, particularly the financial risks for smaller firms through some sort of a trading company concept or through something that would be able to defer taxes or through setting up some sort of reserve for deferring expenses for overseas development, because for these small firms to go out and double their capacity or increase their capacity by 50 percent in a market where there's a high potential risk for them I think has got to be dealt with. And 911 is important here too because for a small firm with maybe \$30 or \$35 million in sales to set up an overseas office that will cost a million or more dollars is a big investment and there's no sense increasing that cost unnecessarily by taxes.

Senator ROTH. Well, I have been hopeful that we would at least this year get some action on the trading company legislation. I might also say that I have been hopeful that we might do something about taxation as well as the anticorruption act. I would hope we would move in those three directions during the remaining weeks of this Congress. I think that the trading company is—

Mr. VERITY. Are you optimistic that we might get a trading company bill this year, Senator?

Senator ROTH. I was a couple weeks ago, but more recently I'm not so certain. It doesn't look as encouraging as it did, but I haven't given up hope.

Mr. VERITY. I hope you won't because that's certainly the one thing we might be able to do this year that I think could start the whole machinery going.

Senator ROTH. Well, gentlemen, I thank you all for your very helpful testimony and patience.

The committee stands adjourned, subject to the call of the Chair.

[Whereupon, at 12:10 p.m., the committee adjourned, subject to the call of the Chair.]