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EXPORT PROMOTION, EXPORT DISINCENTIVES, AND U.S. COMPETITIVENESS

Reports by the President Pursuant to Section 1110 (a) and (b) of the Trade Agreements Act of 1979

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TO THE CONGRESS OF THE UNITED STATES:

In accordance with the requirements of Section 1110(a) of the Trade Agreements Act of 1979, I have had a review conducted of Executive Branch export promotion functions and of potential programmatic and regulatory disincentives to exports. I am submitting today my report on these matters along with the full text of the comprehensive review, which was prepared by the Secretary of Commerce and the U.S. Trade Representative. Their detailed review, while not a statement of Administration policy, reflects an extensive canvass of the views of our exporting community which should assist the Congress and the Executive Branch in the development of policies in this area. My report expresses this Administration's policies.

The expansion of U.S. exports has been, and continues to be, a high priority objective of my Administration. Global events have made international trade substantially more important to the United States than in earlier years, and a strong export position has become a matter of great significance to the economic strength and welfare of our Nation, to the strength of the dollar, and to employment. Exports now account for one in every eight jobs in America's factories, and one in every four on America's farms. I am pleased to be able to report that our recent export performance has been strong. The value of America's merchandise exports has grown 50 percent in the last two years. In the same period, the volume of U.S. merchandise exports has grown at an annual rate of 10 percent, compared to a 6 percent annual growth rate for world trade.

Largely because of this export growth, we achieved a virtual balance in our current account in 1979, despite huge increases in the price of oil imports. It is vitally important

that our international accounts be kept in balance. That goal cannot be reached without strong export growth. Over the longer run, the United States has suffered a declining share of world trade and a rate of export growth that has not kept up with imports. Business, agriculture, labor and government must work together to ensure that this historical trend is reversed.

The successful conclusion of the Multilateral Trade Negotiations -- the Trade Agreements Act was ratified by Congress in 1979 -- makes this effort all the more important. The MTN agreements pose challenges to some producers in the form of tougher import competition. But they also present dramatic new opportunities for U.S. exports through the reduction of foreign trade barriers. The average tariff rate for most developed countries will fall by about 30 percent over the coming seven years, and roughly $21 billion in foreign government purchasing will now be opened to international competition. Other countries are moving aggressively to take advantage of these new trade opportunities. We must do the same.

However, strong export growth depends on the competitiveness of the American economy. We need more innovation, faster growth in productivity, and greater investment in more efficient plant and equipment. And we must reduce the rate of inflation lest we price ourselves out of competition with foreign producers. Only when inflation is under control will our economy be on a sound footing to undertake greater investment. U.S. producers and labor must retain the ability to offer the world high quality goods and services at attractive prices.

Government policies also affect our export position. Improving incentives and reducing or eliminating unintentional disincentives to exports is a continuing and complex process, for policies to encourage exports sometimes conflict with

other national goals -- such as budgetary soundness, national security, nuclear non-proliferation, health and safety, human rights, discouraging aggression and maintaining respect for diplomatic immunity. Our task is to reduce negative effects on exports without weakening other national objectives.

In response to this challenge, my Administration announced a National Export Policy in September 1978. We assigned exports a higher priority within the Executive Branch, we called on business and labor to devote more effort to exporting, and we initiated a set of measures confirming our commitment to export growth.

In 1979, in order to strengthen and centralize the government's ability to address the export needs of the Nation, my Administration proposed and Congress agreed to a reorganization of trade functions in the Executive Branch. The authority of the United States Trade Representative was expanded to cover export policy and other trade-related policies for which responsibility had previously been scattered among various agencies. Responsibility for the operational aspects of international trade, for the day-to-day implementation of the MTN, and for other trade policy decisions regarding non-agricultural products was concentrated in the Commerce Department.

This reorganization -- in effect only since January 1980 -- has already begun to produce solid results. We are beginning to pursue vigorously our rights and opportunities under the MTN. We have also begun to act more quickly and decisively on matters of export policy, as shown by the Administration's timely interaction with the Congress on the Export Trading Company proposal and on legislation to preserve the confidentiality of Shipper's Export Declarations. Within the interagency mechanisms of government decision-making, we are providing a stronger voice in support of actions to promote our export growth.

In charging the Secretary of Commerce and the U.S. Trade Representative to review export promotion and export disincentives, I asked them to consult with other agencies and with business and labor. I also asked the President's Export Council for its views.

The review, now completed, shows significant progress in combining our promotion programs with the implementation of the MTN agreements. For example, the Commerce Department has initiated programs to publicize the opportunities stemming from the MTN and to help U.S. companies take advantage of those opportunities. Promotion initiatives are being targeted to the U.S. industries with the greatest potential to expand their exports. The Agriculture Department's Foreign Agricultural Service is working to ensure that the agricultural sector benefits fully from concessions received in the MTN. The Office of the U.S. Trade Representative has set up a trade policy coordination mechanism to guard our rights under the MTN codes.

In the area of potential programmatic and regulatory disincentives, however, there is no question that certain government policies and programs are perceived as having a detrimental effect on the ability and willingness of U.S. companies to export. Our national interest requires that such policies and programs be reviewed.

In February 1980 I released an interim progress report on the reduction of export disincentives. That report announced certain procedural reforms to reduce further the burden of government requirements and stated that I would convey additional views on export promotion and disincentives to the Congress. On the basis of the review just completed, I have concluded that further actions are necessary to ensure a better balance between our trade policy and other national objectives.

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SMALL BUSINESS

The participation of small businesses in exporting must be increased. One hundred companies account for approximately 50 percent of our manufactured exports, and only 10 percent of the nearly 300 thousand U.S. manufacturing firms are exporters. Thousands more produce goods that could be exported but are not. All of the export promotion resources of the Small Business Administration and most of those of the Commerce Department are aimed at encouraging small and medium-sized companies to market their products abroad. But we must do more to encourage these companies to export.

For this reason, my Administration has worked with Congress to develop the Export Trading Company proposal, which would greatly increase the attractiveness of export marketing for thousands of small and medium-sized firms. Export trading companies buying and selling on their own account and offering one-stop service to exporters could materially increase our exports. The key features of this proposal are: (1) to provide U.S. firms limited anti-trust immunity in competing abroad, immunity that would not adversely affect competition within the United States; and (2) to permit U.S. banks to invest in export trading company ventures, as foreign banks are allowed to do, bringing the vast international experience and financial resources of our banking industry more fully to bear on developing U.S. exports.

I believe this proposal is essential to the increased participation of small and medium-sized firms in export markets, and it has the full support of my Administration. I call on the Congress for speedy consideration and passage of this important legislation.

EXPORT FINANCING

Eximbank financing is the most important official incentive for U.S. exports, and my Administration has consistently supported an effective and adequately funded Eximbank. I asked Congress

to increase Eximbank lending authority to $5.1 billion for FY 1980. This increase is made essential by present economic and competitive conditions and was approved by both the House and the Senate on August 18. However, while awaiting Congressional action on its authorization, Eximbank exhausted nearly all of its direct lending authority for this fiscal year, and many worthwhile requests for export support have had to be deferred. Congress and the Administration must work together to alleviate this kind of budgetary problem and to ensure adequate and reliable Eximbank financing in the future.

In addition to providing timely and adequate funds for Eximbank, my Administration seeks to reduce the financial subsidies given by our competitor nations and to move to a more market-related system of export credit interest rates. I pursued this matter vigorously at the Venice Economic Summit, and the six other major industrial nations agreed that a new international credit arrangement should be negotiated by December 1, 1980. Such an agreement would substantially lessen the difficulties now faced by many American exporters trying to cope with heavily subsidized foreign credits.

But we must also seek to avoid a recurrence of this year's shortfall. Accordingly, I will be working with Congressional leaders and members of my Administration this fall to determine how best to ensure adequate and reliable Eximbank financing in the years ahead, taking into account progress in international negotiations.

TAXATION OF AMERICANS ABROAD

The Internal Revenue Code (sections 911 and 913) provides special deductions for extraordinary living expenses incurred abroad, a deduction for hardship conditions, and an alternative $20,000 exclusion of foreign earnings for individuals living in camps in remote hardship areas. These provisions were enacted in November 1978, in the Foreign Earned Income Act of 1978.

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Many U.S. companies have pointed out that the United States is the only major nation that taxes the earnings of its citizens abroad and have criticized the current rules as insufficiently generous, excessively complicated, and discouraging to exports.

The Secretary of Commerce and the U.S. Trade Representative have undertaken a review of this matter. They report an increasing tendency to replace Americans overseas with foreign nationals, since, in many cases, our tax laws make it more expensive for American firms to employ Americans than foreigners.

Most of our competitor nations exempt from tax all or many of their nationals who reside and work abroad. The tax liability of American citizens employed abroad makes it more costly to hire Americans wherever the local income tax is lower than the U.S. tax. Various segments of the exporting community argue that these additional costs have some or all of the following consequences:

1. U.S. companies are replacing many of their American personnel with foreign personnel.
2. When American companies engaged in engineering or construction work abroad hire Americans in spite of the greater cost -- because the companies are more confident of the skills and reliability of American employees -- the companies risk losing contracts for overseas projects as a result of the higher cost of employees, and U.S. exports are lost.
3. When companies hire the nationals of other countries instead of Americans, they may gain the contracts, but much of the valuable follow-up exports of supplies and equipment are lost because foreign nationals favor foreign suppliers who are more familiar to them.

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4. Foreign operations by American companies tend to create exports from the United States and also to generate substantial earnings that benefit the U.S. balance of payments. Some companies feel they can conduct such operations more successfully if they are free to use American rather than foreign employees.

5. American companies operating abroad sometimes pick up or develop valuable technology in the course of their foreign operations. This technology is less likely to be lost with American employees than with foreign employees, who are more apt to move to foreign-owned companies when they change employment.

6. The present detriment to competitiveness has a snowballing effect on future competitiveness as foreign companies gain strength at our expense.

7. The special deductions allowed for foreign living costs and hardship conditions under present law are insufficiently generous and too complicated.

The cornerstone of U.S. tax policy has always been that all citizens must share in the obligation to finance their government. This policy must not be set aside lightly. In addition, it is difficult to quantify the effect of U.S. tax policy on exports in the aggregate. Not all Americans working abroad have an effect on exports. Many pay high foreign taxes, and therefore pay little or no U.S. tax after the foreign tax credit. And of course other factors, such as increased foreign competition, affect the success of U.S. exports as well. Taxation of U.S. employees working abroad is not solely responsible for the difficulties exporters are encountering.

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The U.S. tax is most likely to be significant where employees are in a position to influence exports, where the foreign tax is low (so the foreign tax credit does not eliminate the U.S. tax liability), where compensation is necessarily high to offset hardship conditions (so the tax bracket is also high), or where the industry in question is labor intensive (so the tax cost of U.S. personnel is a significant component of total costs). Various combinations of these and other factors can give the U.S. tax greater impact than it might otherwise have.

Clearly, those who single out the tax factor as a serious export disincentive are convinced that further tax relief for Americans overseas is desirable and important. It is also clear that the consequences of recent changes in the tax laws affecting overseas Americans are likely to vary with the taxpayer's situation. Americans subject to a high foreign tax can be expected to profit little from changes in sections 911 and 913, because their foreign income tax presently offsets most or all of their U.S. tax liability.

It is difficult to measure the aggregate effects of taxation with any precision. The attempts undertaken to date have been inconclusive. Political factors, such as the removal of the U.S. presence from Iran, and other economic factors such as marketing technology and quality control, complicate the picture. We do not yet have data on how the new tax provisions are operating. (Data will be available in the Spring of 1981.)

Although we do not have answers to all the relevant questions, the evidence gathered in preparing this report does illustrate the importance that the export community attaches to this tax issue. U.S. taxes on the earned income of U.S. individuals abroad do clearly have an adverse effect on the ability of some U.S. exporters to compete in some markets. Accordingly, I will propose to the Congress, in my 1981 legislative program, revisions of the current law in order to deal with this problem.

FOREIGN CORRUPT PRACTICES ACT

The Foreign Corrupt Practices Act (FCPA) was passed unanimously by the Congress in the wake of disclosure of widespread illicit payments by many American companies. The Administration and the Congress have taken the unequivocal position that corruption in international business transactions is morally repugnant and economically unnecessary. I remain deeply committed to the principles of the Act and am steadfastly opposed to weakening the intent of the Act. Eliminating illicit payments in international business should be a matter of concern to all nations. My Administration has been pressing -- unsuccessfully to date -- for a multilateral agreement in the United Nations.

At the Venice Economic Summit meeting in June 1980 I urged that these seven industrial democracies renew efforts to work in the United Nations toward an agreement to prohibit illicit payments by their citizens to foreign government officials; and, if that effort falters, to seek an agreement among themselves, open to other nations, with the same objective. While we did not set a time by which an agreement should be reached in the United Nations, I believe that one further year of negotiation should be sufficient. Accordingly, if an agreement has not been obtained in the United Nations General Assembly, I intend to ask the other heads of government at the 1981 Economic Summit to direct the prompt negotiation of such an agreement among our seven nations, but open to others.

Some in the business community have expressed their uncertainty about what conduct is prohibited and what conduct is not prohibited by the FCPA. Because of this uncertainty, some businessmen say that they are acting with a degree of caution that is resulting in the needless loss of exports. In an effort to deal with the problem of uncertainty, I announced in February 1980 the Justice Department would begin providing guidance under the Act to inquiring companies on

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proposed international transactions. This guidance is now available through the FCPA Review Procedure, and I urge business to use that procedure.

I also announced in February that the effectiveness of this procedure would be examined by the Attorney General and the Secretary of Commerce after one year of operating experience. I believe that, until the review is completed, it is premature to judge the effectiveness of the Review Procedure. I am transmitting the review conducted by the Secretary of Commerce and the U.S. Trade Representative for the information of the Congress and not as a final judgment on the effectiveness of the Review Procedure.

I have directed that the Attorney General and the Secretary of Commerce report to me by March 1, 1981, not only their assessment of the first year of operation of the FCPA Review Procedure, but also their recommendations of whatever actions may then be necessary to remove any ambiguities in the Act. Uncertainties should not be allowed to hamper exports, but in no event will I propose nor will I support any amendments which would weaken the Act's proscription of bribery or which would result in loopholes for bribery of foreign government officials.

EXPORT CONTROLS

Another key concern of exporters has to do with the use of export controls when the goods being controlled are available from other supplier nations. I addressed this concern in my February 27 statement on export disincentives. In considering new export controls to achieve foreign policy objectives and in reassessing current sanctions -- except in the field of arms exports -- my Administration would be highly selective in the use of controls where the affected country has access to alternative supply. I reaffirm that position today.

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In addition, my Administration continues to confront the problem of the administrative costs and delays associated with export control licensing. Based on the present review, I have decided on a change in the licensing requirements for our national security export controls that will lessen the burden on business without weakening the effectiveness of our controls or our ability to protect vital national security interests. The change is that we will stop issuing a separate U.S. reexport license in cases where we have already approved reexport of the same product as part of the COCOM process (the multilateral review procedure which oversees exports of strategic commodities to certain communist countries). In such cases, the separate U.S. licensing procedure is redundant.

We will continue to examine the export control system to seek additional ways of streamlining the process while assuring that national security needs are met.

FUTURE ACTION

The just completed review of export promotion and potential disincentives to exports is the most comprehensive study of its kind ever undertaken by the U.S. government. It contains a considerable amount of information that must be weighed and examined, and will serve as a solid basis for future actions by the Federal government. I look forward to close cooperation with the Congress in this important process.

Jimmy Carter

THE WHITE HOUSE, September 9, 1980

REVIEW OF EXECUTIVE BRANCH

EXPORT PROMOTION FUNCTIONS AND

POTENTIAL EXPORT DISINCENTIVES

(13)

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LETTER OF TRANSMITTAL

Mr. President:

We herewith submit the review of Executive Branch export promotion programs and potential programmatic and regulatory disincentives to exports which you instructed us to undertake pursuant to the requirements of Section 1110(a) of the Trade Agreements Act of 1979. All agencies on the Trade Policy Committee have been involved in this review, and, per your instructions, we have consulted with the private sector on these issues. The views of the President's Export Council were also sought, and are included.

Reubin O'D. Askew
U.S. Trade Representative

Philip M. Klutznick
Secretary of Commerce

July 1980

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CHAPTER 1. INTRODUCTION AND MAJOR FINDINGS

ORIGIN OF THE REVIEW

In recent years, Congress and the Administration have devoted increased attention to the need for the United States to improve its export performance. The Administration's concern has been expressed in the President's announcement of a National Export Policy in September 1978 and manifested in the reorganization of trade functions within the Executive Branch. The reorganization placed coordination of trade and export policy functions in the Office of the United States Trade Representative and operational responsibility for the non-agricultural aspects of these functions in the Department of Commerce. Congressional concern has been expressed by the introduction and passage of trade-related legislation including the Agricultural Trade Act of 1978; the Export Administration Act of 1979, which seeks to maintain effective controls on exports while minimizing any unnecessary effect on exports, and the Trade Agreements Act of 1979, which reflects the successful conclusion of the Multilateral Trade Negotiations (MTN).

In passing the Trade Agreements Act of 1979, Congress felt that new or additional means of improving U.S. export performance may be required to participate fully in the export opportunities created by the MTN. Therefore, Congress mandated in Section 1110(a) of the Trade Agreements Act that the Executive Branch provide a review of these factors, stating:

> The President shall review all export promotion functions of the Executive Branch and potential programmatic and regulatory disincentives to exports, and shall submit to the Congress a report of that review not later than July 15, 1980. The report should make particular reference to those activities which enhance the role of small and medium-sized businesses in export trade.

COVERAGE AND PREPARATION OF THE REVIEW

This review provides a detailed description of the nature and operation of Executive Branch export promotion programs and potential programmatic and regulatory disincentives to exports requested by Congress. It follows an interim report produced by an interagency task force in February 1980 which covered five areas of export disincentives: Foreign Corrupt Practices Act; anti-boycott regulations; foreign policy export controls; nuclear export controls; and arms export controls. In releasing the interim report the President noted the study was not complete, and stated that additional action would be considered and other export restraints would be examined in his full report to the Congress in July.

The review was prepared by the International Trade Administration of the Department of Commerce, in coordination with the Office of the United States Trade Representative. Extensive input is included from agencies which are members of the Trade Policy Committee, as well as other appropriate parts of the government.* However, this review is not intended to reflect each agency's position on these issues or to represent Administration policy.

This review covers governmental factors affecting exports. The effect of economic factors that can affect exports, factors such as productivity, investment in capital equipment, and research and development is discussed in a separate report to the Congress mandated by Section 1110(b) of the Trade Agreements Act. Together these two reports should provide the basis for analyses and evaluation within both Congress and the Administration of the steps which can be taken to enhance the export position of the United States.

Export Promotion

Many U.S. companies are not exporting up to their potential. The problem is not limited to the fact that most American companies do not export. The overseas sales of many existing exporters are limited by insufficient knowledge of marketing techniques and of foreign markets. The inertia created by access to the huge U.S. market and the psychological barriers of foreign languages, laws, and business customs also limit the export efforts of many companies. Government promotion programs seek to overcome these problems by providing incentives to stimulate added export effort and by providing direct marketing and informational assistance. This review of export promotion programs covers:

- Department of Commerce programs to provide information and direct marketing assistance to U.S. exporters;
- Department of Agriculture programs to promote agricultural exports;
- Small Business Programs operated by the Small Business Administration and the Department of Commerce to promote exports by small businesses and minority owned firms;

*The Trade Policy Committee (TPC) is chaired by the U.S. Trade Representative and includes members from the Departments of State, Commerce, Agriculture, Labor, Defense, Treasury, Interior, Transportation, Justice, and Energy, and from the Office of Management and Budget, the National Security Council, the Council of Economic Advisors, and the International Development Cooperation Agency. Other agencies also were consulted in the preparation of this review including, Eximbank, the Environmental Protection Agency, Council on Environmental Quality, the Nuclear Regulatory Commission, the Consumer Product Safety Commission, and the Securities and Exchange Commission.

- Other Promotion Programs, including programs operated by other agencies, programs targeted to service industries, and programs designed to emphasize potential, future export opportunities, such as those afforded by MTN implementation; and

- Financial and Tax Incentives for Exports, including the programs of the Export-Import Bank, Overseas Private Investment Corporation (OPIC), Commodity Credit Corporation (CCC), and International Development Cooperation Agency (IDCA) as well as DISC tax incentives.

Potential Programmatic and Regulatory Disincentives to Exports

Export disincentives can be defined as U.S. Government laws, regulations, programs, controls, policies, and institutions that may have a significant negative effect on exports. Disincentives may prohibit exports, raise the cost of producing goods for export, increase the uncertainty or cost of exporting, or lengthen the time and increase the risk in completing export transactions. All of these impediments can provide a relative advantage to foreign exporters in competing against U.S. exporters in world markets. A broad range of programs and regulatory activities was selected for review as potential disincentives to exports. They fall into five major categories:

- Export and Reexport Controls, including national security export controls; foreign policy export controls; arms export controls; nuclear export controls; short supply export controls; and restrictions on exports of hazardous substances.

- Taxation of Foreign Earned Income

- Code of Conduct Regulations, including the Foreign Corrupt Practices Act; antiboycott statutes; and antitrust laws.

- Environmental and Safety Programs and Regulations, including federal air and water pollution abatement programs; the Toxic Substances Control Act; the Consumer Product Safety Act; and the Occupational Safety and Health Act.

- Other Potential Export Disincentives, including cargo preference requirements; ocean freight rate differentials; and extraterritorial environmental reviews.

The selection was based largely on a preliminary examination of potential export disincentives which was conducted by an interagency task force initiated in late 1978. As noted above, the interim report of that group in February covered only five areas of disincentives, although they identified a larger number of potential disincentives for study. That initial selection was supplemented by the views of the President's Export Council (PEC), exporters, and relevant government agencies in an effort to make the examination as comprehensive as practical.

CONDUCT OF THE REVIEW

In directing this review, the President asked the Secretary of Commerce and the United States Trade Representative to consult with business and labor on export promotion programs and on potential disincentives to exports. He also asked the PEC to provide its views on the best means of achieving a better balance between export objectives and other national objectives.

Thus, while the review draws extensively on information from the government agencies operating the programs and implementing the regulations covered, it also includes extensive input from the private sector. A concerted effort was made to obtain a broad range of private sector views: (1) a notice was published in the Federal Register soliciting comments, (2) the MTN private sector advisory committees were asked for their comments; and (3) a series of in-depth conferences with business, agriculture, and labor representatives was held on major areas of interest. Additionally, the PEC provided its views, which are attached as Appendix A. This information was supplemented by information from U.S. embassies overseas regarding U.S. promotion programs and potential disincentives to U.S. exports. The Department of Commerce District Offices around the United States also provided information.

U.S. Foreign Service Posts. Information was received from 51 posts, in countries accounting for 80 percent of U.S. exports. Export promotion comments included information on programs and policies other countries provide for their exporters as well as views on U.S. promotion programs. In commenting on potential disincentives over half of the posts noted the effects of U.S. taxation of foreign earned incomes, and over one-third cited business problems with the Foreign Corrupt Practices Act. A summary of these responses is contained in Appendix C.

Federal Register Notice. The notice was broadly publicized and responses were received from 248 individual exporters, business groups, trade associations, labor organizations, state economic groups and export councils, universities, and private individuals. The respondents represented a wide range of economic activities and products, from farming to banking, and from home appliances to aircraft. Small, medium and large sized firms were represented. A summary of the views expressed is contained in Appendix D.

Conferences. Six informal in-depth conferences with private sector representatives were held, covering: export controls; export finance; taxation; export promotion; code of conduct (Foreign Corrupt Practices Act and antiboycott regulations), and a range of disincentive and promotion issues of concern to labor representatives. A summary of these informal conferences is contained in Appendix D.

MAJOR FINDINGS

Export Promotion

1. The need for an adequate and reliable level of export financing was the most frequently mentioned concern of exporters. The review of export financing showed that the Eximbank was forced on short notice to restrain certain important credit programs due to resource limitations, even though exporter demand for such programs is currently high. At the same time, some of our trading partners have been aggressively using highly-subsidized official export credits. The two problems are complementary, but the latter is being addressed primarily through international negotiations scheduled to be concluded by December 1. These negotiations are aimed at a system of export credits and interest rates which reflect financial market conditions. The Administration has requested $5.1 billion for the Exim Bank for FY 1980, but Congress has not enacted the necessary legislation. At the time of this report, Eximbank lending was still at the $3.75 billion level of FY 1979, a level seriously below present needs.

2. Most of the approximately 30,000 U.S. exporters are small and medium-sized companies, and the preponderance of Executive Branch export marketing assistance programs are oriented toward the needs of these firms. The Small Business Administration offers export programs aimed directly at small firms. Most Department of Commerce marketing assistance and information programs are directed toward small and medium-sized firms, while Department of Agriculture export programs apply equally to both small and large firms. Eximbank insurance and guarantee programs are designed with the needs of small firms in mind, and Eximbank has established an exporter "hot line" to aid smaller firms in obtaining assistance. In addition, new programs are being developed. The Small Business Administration, for example, is experimenting with revolving lines of credit to provide additional financial support for small business exports.

3. Such programs, while effective in assisting small and medium-sized exporters in increasing their overseas sales, have not been sufficient by themselves to attract large numbers of small and medium-sized firms into the exporting business. Even though roughly 30,000 U.S. companies export, this includes only about one out of every 10 U.S. companies. Moreover, 100 companies account for roughly one-half of all U.S. exports of manufactures. It is clear that many American companies are not taking full advantage of foreign market opportunities. Surveys suggest that as many as 20,000 additional firms could be exporting. They are inhibited by a lack of exporting know-how; uncertainties about business practices abroad; the complexities of U.S. and foreign documentation; the problems of packing for export and arranging for overseas transportation; and inadequate financial resources.

4. The Administration strongly believes that attracting these companies into exporting requires passage of legislation to encourage the formation of Export Trading Companies (ETCs). ETCs would facilitate exports by small

and medium-sized firms not now engaged in exporting because of high overhead expenses and the complexities of exporting. ETC's would provide comprehensive "one-stop" service to smaller exporters, including market analysis, distribution, documentation, financing, and after-sales service. Additionally, an ETC could buy and sell on its own account, and thus would be able to resell the products of small and medium-sized companies overseas. The Administration has worked closely with Congress in support of this legislation, which would enable banks to invest in ETCs and modify Webb-Pomerence antitrust provisions to stimulate the creation of ETCs, while assuring that essential antitrust and banking regulatory safeguards are retained. Legislation is now before Congress -- S.2718 and other bills in both the House and Senate -- whose principal and purpose the Administration strongly supports for enactment in the present session of Congress.

5. As a result of the trade reorganization, export promotion programs are being modified to obtain maximum benefit from new export opportunities generated by the MTN and to coordinate information and education on the opportunities created by the MTN. Most of these new programs are initiated in the Commerce Department's reorganized International Trade Administration. A Trade Advisory Center has been established as a business contact point for MTN-related problems. Plans are well advanced for promotional efforts to ensure that U.S. firms can take fullest advantage of the export opportunities resulting from the government procurement code which takes effect January 1, 1981. In addition to these programs, the Department of Agriculture is using its monitoring and information systems to ensure U.S. agricultural exporters are aware of MTN-related opportunities and to address specific problems. Under the leadership of the Office of the U.S. Trade Representative, the trade policy coordination mechanism has been geared up to guard the rights of U.S. exporters under the MTN codes.

6. A major element of improved government export information programs is the Commerce Department's new automated World Information and Trade System (WITS). This system, which began pilot operations in May 1980, will dramatically increase exporter access to overseas marketing information and to specific export opportunities, while greatly reducing the time required to communicate this information to exporters. For example, WITS will provide timely information to U.S. exporters on foreign government procurement opportunities. Since bidding opportunities can be open for as little as 30 days, speed is essential if the United States is to obtain a favorable share of the potential $20 billion business opened up by the government procurement code. The effective operation of the WITS system depends upon receiving the full appropriation requested by the Administration.

Export Disincentives

7. The review of potential export disincentives shows that certain U.S. government programs and regulations have a significant effect on the ability and desire of U.S. companies to export. No attempt, however, was made to quantify the dollar effect of various export disincentives, since

attempts at quantification conducted for the February interim report showed that estimating the cost of export disincentives in terms of lost exports was impossible. However, based on the opinions of exporters, trade associations and Foreign Service posts provided in the course of this review, the major disincentives appear to be taxation of Americans employed abroad, uncertainties related to enforcement of the Foreign Corrupt Practices Act (FCPA), and export control regulations.

8. These three categories of disincentives stem from recent legislation intended to further the attainment of important national objectives . The rules affecting taxation of Americans abroad are aimed at fiscal objectives and tax equity. Export controls are intended to further objectives such as national security, nuclear non-proliferation, human rights, and containment of hazardous substances by proscribing some exports. The FCPA deliberately curtails exports which cannot be achieved without bribing foreign officials. These objectives cannot be sacrificed, and the process of reducing disincentives to exports must be a continuing one of seeking a balance between export expansion and other national objectives. The optimal solution is to reduce the negative trade effects without weakening the attainment of other important objectives, and this has been the Administration's strategy. Progress has been achieved in reducing some of the unnecessary effects of export disincentives, but more progress is possible.

9. Export controls. Export controls are a major disincentive to U.S. exports. There is agreement among the Administration, Congress, business, and labor, however, that the cost of abolishing export controls would be far greater than the benefits in terms of exports gained. Abolishing controls would create a serious threat to U.S. objectives of national security, foreign policy, conventional arms control, nuclear non-proliferation, avoidance of inflationary domestic shortages, and containment of hazardous substances. Attention, both in the government and in the private sector, has instead been focused on: (1) the weight accorded foreign availability when considering controls; and, (2) streamlining of licensing procedures. The President addressed the first concern in his February 1980 statement on export disincentives, in which he directed Executive Branch agencies to be highly selective in the use of foreign policy controls where the affected country has access to alternative supply. Improvements also have been made recently in licensing procedures for nuclear exports, arms controls, foreign policy controls, and national security controls. Further improvements are warranted provided they do not weaken the objectives of export controls.

10 Taxation of Foreign Earned Income. The United States is the only major country which imposes taxes on the basis of citizenship as opposed to residence or domicile. Because third country nationals are typically subject to tax only in the country where they are resident and not in their country of citizenship, it costs less to employ a third country national to work in a low tax country. Additionally, certain living allowances taxed under U.S. law are effectively exempt from taxation in the case of foreign nationals. Section 913 of the Tax Code currently provides special deductions for certain extraordinary living expenses and for hardship posts. Section 911 provides an alternative to the 913

deductions through a $20,000 exclusion from foreign earned income for those living in camps with substandard housing. These benefits are less liberal in many cases than those prior to 1976. U.S. companies report that the tax cost of employing U.S. citizens abroad is causing them to replace many of their American personnel with foreign personnel. They state that if they do not replace American personnel with foreign personnel, their competitiveness is decreased by the added operating costs attributable to the U.S. tax; and that if they do replace American personnel with foreign personnel, the foreign employees are more likely to specify foreign products than the Americans they replace.

The greatest impact on exports is experienced where the foreign tax is low, but a problem also arises in some high-tax countries which grant relief to foreign nationals by agreement. The effect is most significant for U.S. firms for whom labor costs are a major part of total costs, such as construction companies. U.S. manufacturers with overseas subsidiaries may also have their strong "pull-through" effect on U.S. exports affected by the withdrawal of American personnel.

Comments received from trade associations, companies, and individuals showed this to be the disincentive of overriding concern to the exporting community. Expatriate taxation was the disincentive most frequently identified in the reports from U.S. embassies and in the Federal Register responses, where more than one-fourth of the respondents viewed the taxation of U.S. citizens abroad as the primary disincentive to exports.

11. Code of Conduct. In this section of the review, three potential disincentives were examined: the FCPA; antiboycott regulations; and antitrust laws. The business community regards the FCPA as [illegible] of the most significant disincentives to exports. There are two aspects. First, and most troublesome to U.S. exporters, is the uncertainty associated with the meaning and application of key provisions of the Act. The line between prohibited and permissible conduct is often perceived by exporters as unclear. Among the provisions viewed as the most ambiguous by exporters and attorneys are: (1) the "reason to know" standard under which companies can be held liable for the actions of foreign partners or agents over whom they have little control; (2) the distinction between permissible and unlawful entertainment and gift expenditures; and (3) the boundaries of facilitating or "grease" payments. In order to avoid possible violations of the Act, attorneys often give such cautious guidance that their clients simply forego any export transactions where the FCPA could possibly become an issue. In an effort to reduce some of the uncertainties in the Act, the Justice Department recently instituted a procedure to provide case-by-case reviews to the business community. Exporters, though, strongly believe that the FCPA Review Procedure will not be sufficient, and that the Act itself needs to be clarified. Any such clarification, however, would require extreme care to ensure that loopholes for bribery are not created.

The second aspect is that some U.S. exports are lost because foreign companies can bribe foreign officials to obtain business. Such export losses, however, are intended by the Act. A comprehensive solution to

bribery by foreign companies calls for an international agreement on illicit payments. Movement toward this objective was furthered by the President's recent initiative at the Venice Economic Summit.

The other two areas covered in this section of the review were of lesser concern to exporters than the FCPA. In the view of many exporters, antiboycott regulations, administered by the Commerce and Treasury Departments according to two separate laws, unnecessarily raise compliance costs and uncertainties. The Commerce and Treasury Departments, however, believe they have harmonized their regulatory programs as much as possible under present statutes. The extraterritorial reach of U.S. antitrust laws and their application to certain types of international transactions also concern exporters, but no specific instances were shown of these laws unduly restricting exports. Exporter uncertainties about the antitrust treatment of trading companies, however, could be a deterrent to the successful operation of such companies. Effective means of resolving this problem are contained in the antitrust provisions of pending Export Trading Company legislation such as S.2718, which is supported by the Administration

12. Environmental and Safety Regulations and Other Potential Disincentives
While environmental and safety regulations were found to raise U.S. production costs, exporters appear to regard these regulations as less significant disincentives than the programs and regulations that affect exports more directly. Air and water pollution control regulations were found to account for the bulk of the costs in this category of disincentives. While these and other environmental and safety regulations can affect the cost of exports, changes in these regulations are best considered in the context of regulatory review mechanisms already established. There are some specific exporter problems, however, in complying with the procedures mandated for exporting some hazardous products that may not be sold in the United States under some of these regulations. These problems are currently the subject of an interagency task force developing a hazardous products exports policy.

The review also examined cargo preference requirements, which were found to result in a marginal shift from goods exports to services exports with no adverse effect on overall exports of goods and services. Differential freight rates were found to be a controversial question which needs further study. The extraterritorial application of environmental requirements was found to affect a very small proportion of exports.

PART 1

REVIEW OF EXPORT PROMOTION ACTIVITIES

For the purpose of this report export promotion activities have been defined as all activities, programs, and assistance of a positive nature intended to expand U.S. exports. Thus, this section discusses export financing activities and DISC as well as the traditional trade promotion activities of the Federal Government.

Within the Federal Government the Department of Commerce has the principal responsibility for non-financial export assistance activities directed to manufacturers and services. The United States Department of Agriculture has responsibility for agricultural exports. The Small Business Administration maintains programs of assistance to small firms. The United States Trade Representative has policy oversight responsibilities. Additionally, a number of export promotion activities involve agencies other than those principally charged with promotion. These agencies have also been covered.

CHAPTER 2. U.S. DEPARTMENT OF COMMERCE PROMOTIONAL PROGRAMS AND ACTIVITIES

INTRODUCTION

The Department of Commerce assists U.S. companies to export under the authority provided by its charter to "foster, promote and develop the foreign and domestic commerce of the United States." Historically, the commitment and resources devoted to export assistance have varied with economic conditions. Today the Department's strong commitment to exporting is clear. Secretary of Commerce Philip M. Klutznick has made enhancement of the nation's trade posture one of the Department's three principal goals, along with improving the nation's productivity and innovation, and improving the delivery of all Commerce services to its principal clients.

This section of the report will describe the export promotion activities of the International Trade Administration (ITA), which is charged with primary responsibility for initiating and implementing Commerce export promotion programs and services. In addition, the report will outline the export promotion efforts of other parts of the Department of Commerce whose programs affect exports.

INTERNATIONAL TRADE ADMINISTRATION

Organizational Overview

In January, 1980, President Carter reorganized ITA as part of a reorganization of trade functions in the Executive Branch. The trade reorganization consolidates in the Commerce Department the operation of the U.S. Government's nonagricultural trade functions. Commerce traditionally has had major responsibilities in export promotion, trade adjustment assistance and export control. The reorganization strengthens Commerce's lead role in export promotion in two ways. First, it assigns to Commerce the responsibility for commercial representatives abroad and transfers to Commerce the commercial attache positions in 65 countries abroad. Second, the reorganization assigns to Commerce responsibility for implementing the agreements resulting from the Multilateral Trade Negotiations (MTN) through education and promotion programs, technical assistance to the private sector, and development of data bases for monitoring purposes. These activities are overseen by the newly created Under Secretary for International Trade.

A key feature of the reorganization is the designation of an Assistant Secretary for Trade Development. This position creates a central management focus to ensure effective coordination of all ITA Trade Development responsibilities.

The reorganization has transfered the functions of commercial officers in U.S. embassies abroad from State to Commerce. On April 1, 1980, the Department of Commerce inaugurated the new Foreign Commercial Service.

Together, the Foreign and U.S. Commercial Services, Export Development, and East-West Trade, provide an integrated marketing and delivery system to assist U.S. exporters. Below, the functions of each of these units is outlined.

Foreign Commercial Service. Commerce has established the Foreign Commercial Service (FCS) in accordance with the President's Reorganization Plan Number Three of 1979. The FCS functions as the overseas arm of ITA's program delivery system, providing U.S. businesses with overseas support for their export initiatives.

The FCS has offices at U.S. embassies in 65 countries and in consulates at 59 commercial centers abroad. The 65 countries represent major export markets and account for roughly 90 percent of U.S. exports. FCS posts are staffed by nearly 200 American officers, who are supported by 487 Foreign Service nationals. In each country, the Foreign Commercial Service offers in-depth marketing and commercial assistance to U.S. firms in the area and to visiting U.S. business representatives. The FCS also:

- plans trade promotions aimed at industries and projects with the best prospects for major increases in U.S. exports of goods and services;
- supports the export and investment needs of U.S. business, working closely with organizations such as U.S. Chambers of Commerce abroad;
- helps to implement the MTN agreements by identifying and transmitting trade opportunities and by monitoring host country compliance;
- identifies investment opportunities, major projects, government procurement opportunities, and development project opportunities;
- provides intelligence on economic and market conditions in the host country, including local business needs and capabilities;
- develops background information on importers, agents, and distributors and provides other guidance necessary for successful market penetration;
- provides facilities in support of U.S. business activities, including commercial libraries.

Because the FCS is less than four months old, the FCS Washington headquarters still is developing the management system necessary to support FCS operations overseas. By agreement with the State Department, the FCS initially will be staffed principally by commercial officers detailed from the State Department's Foreign Service Corps. Over the next four years, the number of such details will decline as the FCS builds its own permanent staff of career foreign commercial officers. These transition arrangements will enable Commerce to recruit, hire and train officers for the Corps who are committed to assisting U.S. businesses abroad. The FCS operates under the authority of the Foreign Service Act, but Commerce will manage the FCS personnel system independently of the State Department.

The FCS also has begun recruitment to strengthen the FCS staff. Commerce will bring into the FCS a select number of commercial experts, at mid- and senior-management levels, from both government and the private sector. To ensure that each new FCS officer is prepared for this work, Commerce is working with private industry on a joint program to provide FCS officers with special training in marketing strategies, selling techniques, financial aspects of marketing, and other subjects important to overseas businesses.

U.S. Commercial Service (USCS). The Commerce Department's District Office network in the U.S., now named the United States Commercial Service, is the domestic field arm of ITA's export promotion activities. ITA's 47 field offices and 12 post-of-duty stations serve as familiar contact points for businesses seeking information on international trade subjects.

The USCS provides personal assistance to U.S. companies that have questions or problems regarding exports. USCS offices typically are the first point of contact for American exporters seeking assistance through ITA's worldwide network of commercial services. A major priority of ITA, through the Assistant Secretary for Trade Development, is to link the USCS field offices with FCS posts and the Washington support staff into an integrated system to deliver services to U.S. exporters.

The USCS field offices increasingly have come to focus their activities predominantly on supporting U.S. firms that seek to export. The USCS operates the Associate Office Program which consists of over 977 organizations that reach formal agreements with the USCS to cooperate with and multiply the efforts of the local USCS office. In addition, a less formal but close relationship exists between individual District Offices and 270 business service organizations which cooperate with the USCS as multiplier organizations. Among the multiplier organizations are 45 District Export Councils whose members are 1000 business leaders involved in international trade. These Councils undertake public service programs that emphasize the importance of exporting to the business community.

The USCS provides a variety of export development services to U.S. businesses, including the following:

- USCS trade specialists serve as consultants to businesses. Trade specialists evaluate the basic strengths, weaknesses and opportunities of a company considering initial entry into overseas markets and help the firm develop a sound international marketing plan.

- The USCS serves as a catalyst in organizing, sponsoring, or co-sponsoring seminars, conferences, and workshops on business development, international marketing, and related business subjects.

- The USCS advises exporters on diverse regulatory and procedural matters involving export controls and licenses and, in some offices, it is authorized to issue licenses to exporters.

- The USCS schedules and coordinates approximately 30 federal procurement conferences each year, which are co-sponsored by the Defense Department and Congress. These conferences attempt to broaden the government's procurement base by qualifying new firms for bidding, particularly small businesses. An integral element of each procurement conference is a seminar on export opportunities.

East-West Trade (EWT). The linkage between trade policy and trade promotion in U.S. economic relations with communist countries caused Commerce to create in 1972 a special East-West Trade staff. The staff works closely with other agencies in the TPC system to develop EWT policy and to implement this policy through promotional programs in Eastern Europe, the Soviet Union, and the Peoples Republic of China. East-West Trade plays the lead role for Commerce in the development of policies regarding trade with communist countries, and works closely with ITA to implement export licensing requirements for goods shipped to these nations.

EWT also offers a full range of trade promotion services for centrally-planned economies. Although trade promotion offices have focused on Eastern Europe and the Soviet Union for many years, EWT now has opened an aggressive campaign to promote trade with China. The campaign includes proposed Commerce trade promotion offices in several Chinese cities.

The special buyer-seller relationship in centrally planned economies, and the impact that matters of foreign policy may have on U.S. trade with communist countries, makes marketing in these nations particularly difficult. EWT maintains a staff of country marketing experts who are available to advise U.S. businesses on the intracacies of marketing in communist countries.

Export Development (ED). The ED staff in Washington provides program support to the U.S. and Foreign Commercial Services and offers a variety of programs directly to the American business community. ED's primary regions of responsibility are the non-communist nations of the world, although the technical experts on the ED staff provide direct support to the trade promotion effort in communist countries. Thus, the ED staff provides a central link in the emerging integrated delivery system of ITA's Trade Development programs.

ED's program activities are described in detail in several sections of this report. Although delivery of its programs is the joint responsibility of the two Commercial Services and ED, it is the Washington staff in ED that provides logistical support and planning guidance for these programs. For example, ED provides quality-control and distribution facilities for the various informational services that are developed by FCS officers abroad and provided to the U.S. business community by USCS trade specialists. ED's exhibit specialists similarly provide on-site technical expertise in organizing overseas trade shows and missions that also receive extensive support from the FCS.

The country specialists in ED advise U.S. firms on economic and market conditions in many countries in the non-communist world. This staff also plays an important role in advising the Assistant Secretary of Commerce for International Economic Policy on U.S. bilateral policy toward the countries of the non-communist world.

Mission and Strategy

Trade Development Mission. The Trade Development programs of ITA have adopted a statement of their mission that explicitly recognizes the limited but crucial and catalytic Government role in facilitating the expansion of American exports:

> The Mission of ITA's Trade Development is to Provide Marketing Services for American Business to Expand the Volume of U.S. Exports.

The services of Trade Development are offered to any American firm that requires assistance in exporting. The entire universe of manufacturing firms and the increasingly important services sector of our economy are viewed as potential clients for ITA'S export assistance services. Although as a subsequent section of this report points out, the preponderance of users of Commerce's trade promotion services are small and medium-sized businesses, no conscious effort is made to direct Commerce programs to these firms. Individual Commerce programs are useful to and used by larger exporting firms as well.

Strategies for Trade Development. ITA has adopted three explicit strategies to accomplish the program's mission. A description of each follows:

Strategy I -- ITA will target a substantial portion of its resources on those industries that show the greatest potential for increasing exports.

The competitiveness of American products in world markets differs significantly from industry to industry. Commerce would misallocate its limited trade promotion resources were it to ignore differences in exportability among various products. For this reason, Commerce is developing a method for identifying those industries with the greatest export potential. Each year, a large share of Commerce's trade promotion resources will be targeted on a limited number of industry groups that its analysis suggests have the best export prospects.

The targeting system is based on an analysis of foreign demand for the products and services of 37 different American industries. This analysis, which is done annually, evaluates current levels of exports by U.S. firms to the 65 countries that are the United States major trading partners. For each industry, estimates are developed of foreign competition in these markets, of barriers to trade faced by U.S. firms, and of the prospect for increases in demand for U.S. exports in each market in the years immediately ahead. Through computer techniques developed within Commerce, these factors are evaluated jointly to yield composite rankings for each U.S. industry worldwide. From this rank-ordered list of industries is drawn the final group of industries upon which Commerce's export promotion efforts will be targeted each year. This analysis is a part of the program planning process which is described in a subsequent section of this study.

For FY 81, Commerce will target on a group of 15 industries. For each industry, a Target Industry Program is being developed in consultation with industry members. Target Industry Programs will be based on an assessment of

the need for export assistance of various segments of each industry and on an evaluation of the appropriate strategy for promoting the products of each industry in the most promising overseas markets. Each Target Industry Program will include a mix of services from appropriate Commerce trade promotion programs and special efforts by industry associations and trade publications that are willing to commit their resources to support Commerce's export promotion effort.

ITA also is assessing the export opportunities created by the recently approved Multilateral Trade Agreements. ITA will target its activities on the industries that benefit from unusual opportunities arising from the tariff reductions and eliminations of trade barriers accomplished in the MTN agreements. While many MTN-related opportunities can be exploited through the regular Target Industry Program, those gains from the MTN that fall outside of the target industries will receive special attention to ensure that U.S. firms are full beneficiaries of these accords. A subsequent section of this study will describe in detail the special efforts underway to exploit the opportunities created by the MTN to expand trade.

Strategy II — ITA will respond to the information and assistance needs of all American exporters and will be prepared to take advantage of special export marketing opportunities that arise from time to time.

The targeted approach to delivering export marketing services does not preclude Commerce from providing assistance to any U.S. firm entering overseas markets. Indeed, service to exporters seeking Commerce's help is a high priority. One of the fundamental demands impressed upon the Commerce Department by Congress and the business community during the recent trade reorganization was the need to ensure that ITA's worldwide network of offices are equipped and eager to provide effective assistance directly to the American business executive. Commerce is taking steps throughout its trade promotion programs to ensure that each American firm seeking its help is given careful and personalized attention. In recognition of this fact, a separate strategic focus -- responding to exporters' needs -- has been identified. Substantial resources are being reserved, particularly in the domestic offices of the U.S. Commercial Service and in the Foreign Commercial posts abroad, to ensure that business visitors' needs are satisfied.

Commerce also will respond to special opportunities and needs that arise in the trade development area. Presidential initiatives to assist the footwear, textile, and apparel industries, for example, have awakened a substantial new interest in these industries in exporting. Commerce supports a number of export promotion programs, in conjunction with firms in each industry, as part of the government-wide effort to assist these two industries to become better able to withstand competition from foreign producers. Similarly, Commerce each year identifies a limited number of foreign markets that offer special opportunities for American exporters. In 1981, for example, special Country Action Campaigns were initiated in Saudi Arabia, Korea and the nations of the Association of Southeast Asian Nations. In 1981, campaigns are slated for Mexico and for the Gulf states of the Arabian Peninsula.

Strategy III -- The Trade Development units will advocate exporters' needs within the Government.

Commerce's trade development staff interchanges with American exporters. In U.S Foreign Service posts, commercial officers are in contact daily with U.S. businessmen residing or visiting abroad. Trade specialists of the USCS are exposed to the export problems of firms of all sizes and characteristics throughout the country. Through access at the grass roots to the American exporter community, Commerce is able to identify and articulate the needs of U.S. firms selling goods and services overseas. ITA has adopted as a third strategic thrust an active program to explain the needs of exporters and advocate initiatives to address those needs.

To a significant degree, this role involves extensive participation in the policy-making process of the government. Within the Administration, the FCS and USCS staffs will develop information on the impact on exports of U.S. Government policies, foreign government actions, and foreign business practices. This information will be available to policy makers in the Executive Branch who formulate U.S. foreign and domestic policies that affect exporters. The Congress, through hearings on trade policies and programs and in response to special requests, also is a potential recipient of the information to be gathered on exporters' needs and problems.

Commerce also has access to the advice of distinguished business leaders in the export field. The President's Export Council is an advisory body of prominent private sector, Congressional and Executive Branch representatives. The Council, which was reconstituted early in 1979 by President Carter, has met frequently to consider pressing trade matters and to advise the President on export policy matters that are coming before him. The President's Export Council is given staff support by the Commerce Department, and the Council reports to the President through the Secretary of Commerce.

Throughout the United States, District Export Councils, affiliated with their local USCS office, provide advice on export matters from the local perspective. District Export Council members amplify Commerce's trade promotion programs in each region by speaking on exporting before local groups and giving their own time to counsel and assist new exporters.

Trade Development Programs and Objectives. ITA offers an array of services that assist American firms to overcome the most important obstacles to increasing their exports. These programs fall into seven categories, reflecting the basic program objectives in the Trade Development units of ITA. The following section discusses each program objective, some of the factors that give rise to the objective, and the specific programs ITA has developed to accomplish the objective.

Objective 1 -- To provide information and assistance to individual U.S. firms and industries on specific export opportunities and problems.

The key to success in exporting is timely and accurate information on potential sales opportunities and general information and counseling on economic conditions. U.S. firms have consistently indicated in surveys

conducted by Commerce that they require such information in order to develop their overall marketing strategies. Five major activities within ITA are designed to meet this objective. They are the Business Counseling Service, The Major Projects Program, The Trade Opportunities Program, The Export Marketing Plans Service, and the Trade Complaints Service.

Business Counseling for exporters is offered by several elements of ITA. During FY 79 nearly 175,000 requests for business counseling were made by U.S. companies. The majority of these inquiries were handled by the USCS. The USCS evaluates the opportunities available to a company considering initial or expanded export business and develops with the firm a sound international marketing plan. The contacts and relationships generated with the USCS usually stimulate potential and experienced exporters to explore other counseling services within ITA.

Trade specialists in Washington provide companies with specific information on foreign business practices and market opportunities. Specialists in ITA also provide country-specific marketing advice. In EWT, experts advise U.S. firms on methods of doing business in centralized economies and provide insights into marketing and promotion practices in these countries.

ITA counseling services draw from a vast array of economic and marketing input generated by the FCS. In FCS posts abroad, commercial officers have been instructed to give the highest priority to aiding visiting U.S. business representatives with "on-site" marketing perspectives.

The Major Projects Program assists U.S. industry to bid successfully on major international construction or infrastructure projects and on major product sales opportunities. The program staff monitors foreign tenders, primarily from foreign governments, for bids on major industrial projects, consultancy and product sales contacts, and strategic systems sales. Through FCS commercial officers abroad and through private sources, the program staff gathers and disseminates information to U.S. firms interested in particular opportunities.

The program staff also play a facilitative role on projects in which problems arise. The staff coordinates U.S. Government support to insure that American firms receive fair treatment in bidding on projects. Such support usually takes the form of official representations to foreign buyers of major projects on behalf of all U.S. firms bidding on a project.

This staff also is responsible for qualifying U.S. firms to bid on procurements by the North Atlantic Treaty Organization. No fees are charged for any of these services.

The Trade Opportunities Program (TOP) notifies American companies of specific export opportunities that come to the attention of commercial officers in U.S. posts abroad. Often foreign business persons seek assistance in locating U.S. suppliers, and many other trade leads are developed by commercial officers in the course of their regular business contacts.

Trade leads are cabled by overseas posts to the TOP computer in Washington. A computer search matches the foreign buyer's interest with products offered by U.S. firms that subscribe to the program. Notice of the trade opportunity

is then mailed to the subscriber for action. In many cases, U.S. overseas posts designate certain prime trade opportunities for "special handling." In these cases, TOP specialists telephone specific firms to give them direct and swift notice of these opportunities. A weekly compilation of all new trade opportunities is also available on a subscription basis. State and local government organizations and some private firms purchase computer tape records of trade opportunities and disseminate TOP to firms in their region.

The Tailored Export Marketing Plans Service (TEMPS) provides individual firms with a step-by-step customized plan of action to enable the firm to begin exporting. Each plan is a complete work plan and timetable to guide a firm through the fundamentals of exporting. TEMPs help firms to identify the best foreign market for their products, to select a freight forwarder, and to fill out export documents. Each TEMPS is developed after consultation with the individual firm's management. Occasionally, in conjunction with trade associations, TEMPS are programmed for industries or industry segments and made available to all interested firms. The USCS follows-up each TEMPS with further counseling assistance as the firm implements the marketing plan.

ITA's Trade Complaints Unit facilitates amicable settlement of commercial disputes involving U.S. exporters. Complaints are brought to the unit by U.S. companies or foreign buyers. The Unit does not take sides in these disputes; rather, it uses the offices of the FCS and the USCS to informally encourage both parties to establish or resume direct negotiations.

Objective 2 -- To provide U.S. businesses with information necessary to identify and establish overseas business relationships.

Respondents to Commerce surveys consistently have attached a high priority to obtaining assistance in locating and obtaining foreign representation to carry out their export market goals. Commerce has developed a broad range of informational programs to serve this need and, during 1980, launched a major new information service, the Worldwide Information and Trade System (WITS).

Three established programs complement WITS: World Trade Data Reports, the Agent/Distributor Service and the Foreign Traders' Index. WITS assists in orienting a U.S. firm on where to export, while the other three services offer specific information on foreign companies. These three services are available to U.S. firms on a fee basis.

WITS, now in its pilot stage, is designed to deliver essential information to U.S. exporters by means of an on-line computerized system. Seven basic types of information will be offered in WITS. Data bases will include background information on U.S. suppliers and foreign customers, information on products offered for sale by U.S. firms and products sought by foreign buyers, summaries of market research conducted by Commerce, lists of upcoming trade promotion events, and a file of key government and private sector experts to whom exporters may turn for help.

By 1983, ITA plans to have the WITS system available in every Commerce field office, and in more than 40 overseas posts. Private information vendors will offer WITS to the public directly to expand the market for and convenience of using WITS. Until WITS is fully operational, several long-standing Commerce information programs remain in operation.

World Trade Data Reports (WTDR's) are compiled on request for U.S. exporters who seek background information on prospective foreign buyers of their products or services. The Agent/Distributor Service (ADS) assists U.S. firms entering a foreign market for the first time to locate an effective representative or distributor. Both WTDR's and ADS can be ordered through the USCS which develops the request by analyzing a firm's product line and export objectives. The application is transmitted to the appropriate U.S. overseas posts where commercial officers screen the market for qualified agents or distributors or seek the background information requested for a WTDR.

The Foreign Traders Index (FTI) is a computer file listing names and addresses of foreign firms known to be potential purchasers of U.S. products or potential agents or distributors for American firms. Upon request, Commerce will prepare labels or a computer print-out from the FTI lists of firms by country and product type. These lists can greatly simplify a firm's search for foreign contacts. Trade lists are requested by U.S. exporters in most cases through the USCS.

Objective 3 -- To expand participation of U.S. firms in trade promotion activities overseas.

Face-to-face meetings with potential buyers and agents often enable exporting firm to best assess the overseas market for its products and the character of future business partners. At the same time, the opportunity to meet with exporters and see their products in action has proved to be a tremendous attraction to potential buyers and representatives. For this reason, Commerce administers an extensive program of trade expositions and missions to provide these highly valued personal contacts.

ITA's trade promotion program is administered through a network of twelve Export Development Offices in the non-communist world and five trade promotion centers in Eastern Europe. Together, these offices serve as key information and marketing centers for U.S. business representatives planning or currently doing business overseas. Each office manages participation in local international fairs, hosts specialized exhibitions, provides support to U.S. trade missions, and assists U.S. firms participating in these activities by providing them with a temporary base of operations abroad. Annually, ITA sponsors more than 400 overseas promotional events for U.S. businesses.

In addition to its traditional promotional events, ITA is developing the Market Launch Service. This program provides low-cost, "no frills" assistance to U.S. firms that participate on their own in foreign trade fairs. Commerce acts as a liaison between fair-sponsors and the firm and provides the firm with limited facilitative services.

ITA's special promotions programs provide other low-cost overseas promotional opportunities. These include catalog expositions and video-tape presentations that enable firms to present and even demonstrate their products without incurring the expense of shipping goods abroad. These special services are particularly effective in remote areas or developing countries.

All Commerce trade promotion events are made available at cost to U.S. firms. As exhibition costs have risen and funds available for these events have diminished in recent years, ITA has found it necessary to recover virtually all costs of each exhibition from participants. This has resulted in a substantial increase in charges for trade fairs during the past two years. Although the subsidy implicit in earlier price structures has been eliminated, the programs continue to offer a broad range of promotional opportunities and to enjoy substantial participation by U.S. firms.

Objective 4 -- To stimulate U.S. business interest in exporting.

A company that decides to export is principally motivated by the need to find new markets and by the potential profits to be achieved through exporting. Consequently, ITA provides information to U.S. companies and industries so that they can evaluate business opportunities overseas through exporting and can gain an awareness both of how to export and of the information and assistance offered by the government. A number of activities are directed toward this objective.

Export Seminars are the major vehicle employed by Commerce to attract new firms to exporting. Each year, the USCS sponsors hundreds of seminars to introduce firms to exporting and export techniques. Among the topics discussed in the seminars are. generalized introductions to exporting, detailed inquiries into marketing opportunities in high-potential regions of the world, and technical sessions on such topics as export financing and documentation. The seminars often are co-sponsored by local Chambers of Commerce or other multiplier organizations and often feature as speakers the staff experts from ITA in Washington. Commerce also co-sponsors, with OPIC, SBA, and Eximbank, Interagency Conferences which provide information on the wide range of government export assistance activities and, in particular, give broader coverage to Eximbank, OPIC, and SBA activities.

Export Awareness publications from ITA provide the would be exporter with a broad range of informational pamphlets. Some, such as ITA's "Basic Guide to Exporting," are comprehensive how-to guides to exporting or to specific problem areas in overseas trade. Other publications offer general information on exporting and introduce exporters to the services available from the Government to assist in overseas sales. ITA's publications also include detailed market research on foreign market demand for individual products and special reports on foreign market conditions prepared by the FCS.

The Industry Relations Program puts U.S. industry, mainly through trade associations, in contact with experts on trade development matters. Industry program specialists work closely with industry groups to develop export promotion plans for industries targeted for intensive assistance. ITA's regular contact with industry on program developments ensures that the concerns and objectives of industry are taken into account in developing Commerce's programs that assist individual industries.

The President's E-Award Program for outstanding export performance gives public recognition to companies that have succeeded in achieving substantial increases in the level of their exports. The publicity associated with the

presentation of the E-Award gives a company valuable public recognition for its export activities and contributes to Commerce's export awareness efforts by establishing the E-Award winners as role models for other firms.

Objective 5 -- To stimulate foreign buyers' interest in U.S. products and technology.

Although ITA principally promotes exports by assisting companies to make products available in foreign markets, exports also may be expanded by encouraging foreign demand for U.S products. Bringing foreign buyers to visit U.S. suppliers in many cases is an efficient and low cost method for U.S. firms to introduce their products to overseas markets. Particularly for the small firm, or the first-time exporter, bringing the foreign buyer to the company doorstep is a less risky, and more attractive way to begin exporting. Two ITA Programs currently meet this objective: The Foreign Buyer Program and the New Product Information Service.

The Foreign Buyer Program assists foreign business representatives who visit the United States to purchase U.S. products, services or technology. Commerce trade specialists assist foreign buyers to contact U.S firms. Each year, the program staff supports a number of buying missions to the United States. About 15 trade shows staged in the United States each year receive special assistance in recruiting foreign buyers to visit the shows. Foreign visitors are assisted in registering at trade shows, in setting appointments with U.S. exporters, and in other activities as well. The FCS abroad promotes buyer attendance at trade shows sponsored by the program and alerts the program staff to assist individuals and groups of buyers coming to the United States.

Itineraries developed for foreign buyer groups ordinarily include plant visits and appointments with prospective U.S. suppliers. The USCS supports this program through assistance to foreign buyers when they visit U.S. cities.

The New Product Information Service (NPIS) gives wide foreign market exposure to new U.S. products through government publications. The primary targets of this service are U.S. firms not regularly exporting, particularly small and medium-sized companies seeking a low-cost test of foreign buyers' interest in their products. Subscribers to NPIS, which is provided free of charge, submit promotional product descriptions to ITA, which publishes the material in Commerce's bi-monthly publication, "Commercial News, USA." This magazine is then distributed to Foreign Service posts, which in turn, distribute copies to local businesses. In many embassies, portions of "Commercial News USA" are translated into the local language to ensure broad distribution to potential foreign purchasers. In addition to NPIS, "Commercial News USA" publishes news of products from virtually every major U.S. industry. Each general issue of about 175 new product listings and other opportunities is distributed to about 100,000 foreign buyers by the commercial sections in U.S. overseas posts. The USCS assists firms in responding to foreign inquiries that result from their exposure in "Commercial News USA."

Objective 6 -- To enhance other federal, non-federal government, and private sector export promotion activities.

ITA and EWT are only two of many organizations involved in promoting exports. At the state and local levels, private agencies have been selected to assist and encourage exporters. Many private sector activities also offer assistance to exporting firms. The Federal Government possesses some advantages in providing export assistance by virtue of its substantial resources here and abroad. Local entities, however, complement the Federal Government's efforts. Working together with Commerce, these groups can magnify Federal Government efforts and make them more effective. For these reasons the enhancement of non-federal efforts is one of ITA's Trade Development strategies.

To expand the role of state and local governments in exporting, ITA has established a liaison office within the office of the Assistant Secretary for Trade Development. This liaison function provides swift access to export information and ITA services for export-oriented organizations at all levels of government. The liaison office will encourage better planning and coordination of Federal, State, and local export initiatives and will assist jurisdictions interested in establishing export development programs.

Private export promotion services are developed through Commerce's Multiplier Program. Multipliers include banks, Chambers of Commerce, and other private businesses and organizations with an interest in helping exporters. Multipliers reach a formal agreement with Commerce to distribute Commerce literature, publicize its services, and otherwise support the Federal export expansion effort. Commerce provides the multiplier with the materials and export assistance needed to do this job effectively.

The USCS is the key contact point for both initiatives. Trade specialists provide the expert counseling government agencies often need in their export programs. USCS specialists also work closely with multipliers and local government organizations to coordinate program activities and seek ways in which local and Federal efforts can work together to expand exports from the region.

Objective 7 -- To plan and evaluate export development activity and identify the best opportunities in industries and countries.

Planning of ITA's Trade Development program is essential for three reasons. First, Federal Government resources available for export promotion are limited, and effective planning is essential to best accomplish the Trade Development mission. Second, the conduct of the Trade Development mission involves integrating a number of separate but closely related organizations, namely the USCS and the FCS in the field, and the Export Development and East-West Trade staffs in Washington. Planning of programs and agreement among the units on objectives and standards of performance is essential to the effective delivery of Trade Development programs. Finally, planning and evaluation provide the mechanism for adjustment and change in response to rapidly changing economic conditions and trade opportunities in the international marketplace.

The Trade Development planning process consists of four elements:

1. Long Term Planning, including an annual review of the mission, strategies and objectives of the Trade Development programs.

2. Budget and Program Planning, including the determination of priorities and program needs to carry out the mission and strategies and the development of budgetary requirements to support its programs.

3. Targeting and Industry Planning, involving the identification of industries and foreign markets with high potential for increased U.S. exports, the analysis of the problems and needs of targeted industries, and the development of ITA Target Industry Programs for each industry selected by ITA for intensive assistance.

4. Country Commercial Programming and Planning, through which FCS posts and the Washington program units reach agreement on post goals and objectives and the allocation of post resources for trade development purposes.

Because the Federal budget process requires very long lead times, this planning sequence occurs over a three year cycle. It results, at the start of each fiscal year, in detailed program plans for each staff unit in Trade Development. The planning system, which is still evolving, is intended to become the driving force behind the full integration of the field and Washington staffs of ITA's Trade Development effort.

A comprehensive evaluation system also is being developed for Trade Development because evaluation plays an essential function in the efficient use of resources. This system will provide management with information on program performance and become an essential input into the planning process.

NON-ITA EXPORT ACTIVITIES IN COMMERCE

Economic Development Administration (EDA) Export Activities

As part of its traditional role of stimulating economic development in distressed areas, the Economic Development Administration has provided assistance to support export development since 1965. In many instances, these activities have been coordinated or developed jointly with ITA--combining EDA's programs to create private sector jobs with ITA's programs to expand exports. EDA encourages export activities as an economic development tool, and also explores the ways in which EDA can support and supplement Departmental trade efforts. Below are several examples of activities which have been undertaken by EDA in the past to support export activities:

- In 1977 a joint EDA/ITA two year demonstration was undertaken. Through this demonstration EDA provided $465,000 to fund export specialists on the staff of nine Economic Development Districts

(EDDs), which are multi-county planning organizations with representatives of both the private and public sectors at the local level. The specialists are charged with helping the EDA develop an Export Development Program and providing one-on-one counseling service to local firms in conjunction with the ITA field office. It is expected that this effort will continue into FYs 81 and 82.

- EDA's Technical Assistance Program has provided export assistance to American communities, including assistance to trade-impacted industries and firms, through its Trade Adjustment Assistance Program. Some of the Trade Adjustment Assistance has been directed toward export development as part of a readjustment and recovery strategy. Technical Assistance projects have included:

  - An outreach program to assist smaller firms to export, such as through EDA-funded University Centers. The University Centers provide varied development, management, and problem solving assistance to the communities and business firms in their area.

  - A $300,000 grant to the Economic Development and Industrial Corporation of Boston to examine all Boston area manufacturers to help them identify exportable products, to provide management assistance, to establish overseas trade missions, and to sponsor an international trade fair.

  - grant of $505,000 to ITA to support a series of studies concerning worldwide exporting potential for American textile and apparel firms. To further support this effort, a total investment goal of $3 million was established for transfers to ITA for FY 79-80.

- EDA has also provided business loans and loan guarantees to firms interested in exporting through its Development Finance Program as part of the agency's economic development mandate. Under the Trade Adjustment Assistance Program, loans and loan guarantees to import-damaged firms are also available.

Regional Development Commissions

The eight Title V. Regional Commissions associated with Commerce and the Appalachian Regional Commission, which is funded under a separate legislative authority, are each headed by a Federal co-chairman appointed by the President to represent the Federal Government and by the governors of member states. The commissions encompass adjacent states and provide federal-state cooperative leadership to regional economic development and planning. In recent years, they have increasingly included export activities in their program priorities. A considerable number of export development projects have been funded by the Commissions, often jointly with state and federal agencies. Most of the programs have emphasized export awareness, trade missions and identification of export development opportunities.

The following are examples of some Regional Commission export related programs.

- The Southern Consortium for International Education at Georgia Tech provides foreign market studies of 75 industries which have the best export prospects. Commission funding will enable businesses to receive these studies free of charge.

- A seafood and agricultural trade mission is now scheduled to visit Egypt, Japan, France and a number of African countries. This project is coordinated with ITA and funded by the Coastal Plains Regional Commission.

- The New England Regional Commission has funded participation by New England firms in ITA-supported overseas trade fairs and trade missions which focus on industries heavily represented in the area.

- The Old West Regional Commission has been active in export development for a number of years. It has funded ETLAS, a program under which a consultant, specializing in export management, provides Export Trade Leads and Advisory Services to Old West Region business firms. The trade leads service is based on the Department of Commerce's computerized Trade Opportunities Program.

- The Four Corners Regional Commission focused its initial effort on building basic infrastructure services in the region. It helped three state offices to establish export programs. The programs have concentrated on export awareness and identification of firms with export potential.

National Marine Fisheries Service (NMFS)

The Seafood Export Development Program promotes the export of American seafood products, particularly those seafoods based on underutilized species. The program introduces America's seafood products to potential buyers overseas and stimulates and trains American businessmen to export. These promotion efforts are implemented through the following activities:

- The NMFS staff, through contracts, is developing an up-to-date listing of domestic seafood producers and exporters and their seafood products, and foreign seafood buyers, importers, wholesalers, processors, and large institutional users. The development of specialized literature in foreign languages together with audio-visual presentations has been contracted for to help sell American products to foreign businessmen who are unfamiliar with American seafoods. In-depth studies of foreign seafood markets have also been contracted for to determine where opportunities exist for the development of new or expanded sales of American exports.

- The program also calls for a coordinated effort to catalog foreign seafood standards, specifications, and consumer preference, by species, of all major foreign markets. This will give U.S.

businessmen better guidelines to follow in preparing their products for different foreign customers. NMFS also plans to establish a network of foreign-based reporters who will telex daily or weekly reports on international seafood market conditions and trends to NMFS. The NMFS staff will distribute this information rapidly to the U.S. seafood industry in order to give them a competitive edge in their international marketing efforts.

Under the program, NMFS will develop and lead trade missions into overseas markets to promote the export of all United States seafood products at international trade fairs, conferences, and exhibits where appropriate.

NMFS has participated in shows or led missions worldwide and has also participated in domestic shows and seminars on exporting.

CHAPTER 3: U.S. DEPARTMENT OF AGRICULTURE PROMOTIONAL PROGRAMS AND ACTIVITIES

INTRODUCTION

Importance of Agricultural Exports to U.S. Economy

Agriculture is a major growth sector in the U.S. economy. FY 79 farm exports of $32.1 billion paid for agricultural imports of $16.2 billion -- leaving a net favorable balance of $15.8 billion.

In FY 79 production of almost one out of every three harvested acres -- about 110 million acres -- was exported. For some farmers, the ratio is even higher. Soybean farmers must look to foreign markets for more than half their sales; wheat farmers market two-thirds of their production abroad; in cotton and rice, exports account for more than half of production; and for feed grains and tobacco, more than 25 percent. Today, more than one out of every four dollars earned by the American farmer comes from overseas sales.

U.S. farm exports also contribute significantly to the national economy. Every dollar that is returned to the farm sector from export is more than doubled in the economy. In the aggregate, farm exports generated over $70 billion worth of business activity in 1975. Of this, about $30 billion came from the farm sector. The remainder came from supporting goods and services dispersed throughout the economy, generating income in food processing, trade and transportation, warehousing, wholesaling and retailing, and other sectors.

Foreign Economic Development

Foreign economic development is important to U.S. export market promotion. Growth in demand for U.S. agricultural exports is closely linked to increases in per capita incomes in foreign markets. At very low per capita income levels, increased demand for food staples is actually more than proportional to increases in earnings. Thus, even modest changes in per capita income can have a sizeable effect on the demand for basic food items. Greater demand for food generally translates into increased demand for agricultural imports. This is especially true in the case of developing countries whose agrarian sectors are unable to respond to increased demand with increased production. Increases in income, therefore, result in increased demand for U.S. wheat, rice, fats, and vegetable oil.

In the richer, emerging industrialized nations, the increase in the demand for food is less then the increase in incomes. High protein foods and more highly processed foods come within reach financially, resulting in the growth and diversification of demand for a broader range of agricultural products. Greater demand for meat, in turn, translates into a greater demand for feed grain and feed proteins, both from abroad and from the United States.

Legislative Foundation

Government activities related to the development, expansion, and maintenance of foreign markets for U.S. agricultural products are centered within the Foreign Agricultural Service (FAS), established on March 10, 1953. The mission of FAS is to expand foreign markets for U.S. farm commodities by gathering, analyzing, and disseminating information on foreign market supply and demand situations; working to gain access to foreign markets; and working to promote increased foreign consumption and utilization of U.S. agricultural commodities. Recently, the Secretary transferred to FAS the Office of the General Sales Manager (OGSM), which has responsibility for the Agricultural Commodity Export programs and Risk Assurance programs. Under the Commodity Credit Corporation Charter Act, OGSM has the authority to make sales or export from CCC stocks, and to develop and administer programs to export U.S. agricultural commodities. The CCC Credit program was established under the Commodity Credit Corporation Act of 1948.

SPECIAL CONDITIONS OF AGRICULTURE

Unique Production and Marketing Structure

Agricultural production and marketing are carried out in an operational environment substantially different from the manufacturing segment of the U.S. economy. Productive resources are fragmented, and the individual producer lacks control over marketing, product price, and the total output. Production is usually determined to a large extent by weather rather than by management choices.

Because the individual producer often lacks adequate control over key factors of production, and because in a worldwide marketplace agricultural products are generally handled by nonfarm interests, it has long been Government policy to reduce the individual producer's financial risk through many avenues such as research, credit, insurance, education, marketing information, and price supports.

U.S. farm policy allows individual producers to allocate production resources (with a few exceptions) in an effort to achieve optimum production efficiency in terms of supply-demand conditions in the marketplace. Large export sales have become an integral part of the agricultural economy. Agricultural officials generally agree that at optimum levels of production, the United States has a comparative advantage over most foreign suppliers of most major competing crops. Moreover, the full benefit of this comparative advantage is enhanced by Government assistance to increase export sales, improve the efficiency and stability of the marketing system worldwide, and help reduce obstacles to U.S. sales in international markets.

Foreign Market Obstacles

The Foreign Agricultural Service, as part of its market development activities, and with the cooperation of the U.S. Trade Representative on

trade policy matters, also helps to reduce a variety of obstacles to U.S. sales in international markets. Examples of major obstacles facing U.S. producers in foreign markets are:

- Inadequate commodity promotion and representation in foreign markets.
- Ignorance, or low level of awareness of product, product availability, or product use.
- Inadequate trade servicing.
- Underutilization of advanced techniques.
- Inadequate product distribution, transportation, and trading systems.
- Discriminatory or arbitrary foreign government procurement procedures.
- Costly, arbitrary or discriminatory customs practices and license procedures.
- Outdated or discriminatory application of standards and container requirements.
- Unnecessarily restrictive health regulations.
- Import quotas, variable levies, and other nontariff trade regulations.
- High or discriminatory tariffs.
- Subsidized competition.
- Transportation bottlenecks.

CURRENT MARKET DEVELOPMENT AND CREDIT PROGRAMS

Introduction

The Foreign Agricultural Service works for farmers jointly with agricultural trade and producer groups, private companies, and state departments of agriculture. This market development program reaches into 75 countries. Only one-quarter of one percent of USDA's total budget goes to this program. Over the past 12 years, government funding for market development has remained fairly constant as inflation has eroded purchasing power. The FY 79 budget of $17.9 million has an average overseas purchasing power of $8.2 million in 1970 dollars. Agricultural trade and producer groups, recognizing the program as one of the most important in Agriculture, have struggled to maintain the budget in real terms, increasing their contributions to 69 percent of the total. Nevertheless, activities have had to be pared and market development projects curbed while competitors' programs continue to increase in size and scope.

Program Objectives

The objective of the foreign market development program is to develop, maintain, and expand long-term commercial foreign markets for U.S. agricultural commodities. The general approach is to carry out trade servicing and consumer promotion in those situations promising mutual benefits to U.S. producers and foreign customers. Priorities are: 1) to maintain on-going services in support of U.S. commodity sales in established commercial markets; 2) to build on the established base in developed markets to expand demand for traditional commodities and introduce new products; and 3) to carry out development activities for selected commodities in new non-established markets on a selective basis.

Program Operation

Credit Programs. USDA maintains important programs to assist in the financing of U.S. agricultural exports. These include the Concessional Credit programs under P.L 480 and the Commercial Credit programs of the Commodity Credit Corporation. A detailed discussion of these programs is contained in Chapter 6.

Foreign Market Development Programs. Presently FAS is working with 53 cooperators -- agricultural trade or producer organizations -- representing approximately 2 1/2 million farmers. The cooperators work with an estimated 1,653 organizations overseas, 1,532 U.S. cooperatives, and 8,700 private U.S. firms. In addition, FAS works with departments of agriculture in all 50 states. This approach has enabled FAS to utilize funds and expertise available within these organizations to achieve program objectives and to hold down federal outlays.

Cooperator program -- Cooperator activities are carried out under contractual agreements with FAS. Promotion activities are proposed in annual marketing plans developed by the cooperator and submitted to FAS for approval.

Trade Servicing simply means helping the buyer choose the right U.S. product and use that product efficiently. Bulk, unprocessed commodities such as soybeans and feed grains lend themselves especially to trade servicing activities.

In some cases, consumer promotion is carried out to stimulate specific cooperative action by key foreign leaders or tradesmen. Frequently, trade servicing is useful in such consumer-oriented programs to insure that foreign tradesmen know how to handle an unfamiliar product. Regardless of the specific application, trade servicing is intended to help create a favorable image abroad of the United States as a reliable source of dependable, quality products.

Consumer promotion is designed to create demand for identifiable semi-processed and processed consumer ready products, having substantial growth potential. Generic and brand promotions are the two overall types of consumer promotion. Either may contain elements of trade servicing or elements of the other type of consumer promotion and may be carried out

through similar approaches. However, both types of promotion utilize standard media advertising and other appropriate promotional techniques based on normal market and advertising research.

Generic promotion is a long term effort intended to convey to a target group a favorable image about a product in general, usually with emphasis on its U.S. origin. Often public relations (including unpaid secondary promotion) is an important technique.

Brand promotion is intended to convey a specific message about a specific brand product to the target group. Financial contributions by cooperating firms under such export incentive programs (brand promotion) must, at a minimum, match the FAS share. However, as export sales rise, Government contributions are reduced with the intention of complete withdrawal. Nevertheless, such withdrawal from one market does not prevent joint introduction of the product in another market where there is potential for sales.

FAS' multi commodity program -- FAS carries out selected promotional activities that cannot be performed with an individual cooperative program. Most such activities fall into one of two approaches: exhibitional or informational.

Exhibitions

FAS has participated in many major foreign national and international food exhibits. However, because of budget limitations, FAS has shifted participation to less expensive, more specialized shows aimed more directly at specific targeted decision-makers in the food industry.

The exhibits generally are held in hotels where kitchen facilities are available for use by the 25-50 participants to demonstrate their products to invited food tradesmen.

Promotional activity includes livestock-feed demonstrations; in-store promotion, using posters, leaflets, signs, etc.; catalog exhibits and samples; taste testing; and media advertising. Attaches handle most of the actual negotiations and store groups absorb a major portion of the costs.

The attache product show is a display of U.S. agricultural products primarily in countries having centrally planned economies where the consumer is unable to exert direct influence on the variety of foodstuffs imported. U.S. firms are offered the opportunity to send specific products to be displayed in an attractive setting before the key officials responsible for purchases of imported food products for their country.

International Information

The Trade Opportunity Referral System (TORS) provides a fast link between foreign buyers and domestic sellers of U.S. food and other agricultural products. Computerized lists have been developed of more than 7000 U.S.

suppliers who may be contacted by nearly 10,000 interested buyers in 56 countries. The average request goes to 35 suppliers. In addition, a weekly mailing of referral is made to nearly 5,500 firms and others who have expressed an interest in export possibilities.

In 1976, FAS initiated a program whereby U.S. firms, through a FAS release, can publicize their firms and products which they are capable of exporting. The monthly release is made available to the attaches who, in turn, disseminate it to the agricultural trade in their respective countries.

A new product testing system was developed and tested in FY 73. This is a system whereby new-to-market foods are screened and evaluated by FAS in Washington and then abroad by the appropriate agricultural attaches to determine their enterability and marketability in selected foreign markets. The U.S. firm is then notified of the results of the evaluation and what changes, if any, would be necessary for products to enter the market.

The Fresh Produce program is an activity intended to help potential exporters of fresh perishable produce test new foreign markets. FAS specialists work with producers or shippers, and foreign importers and retailers to develop a coordinated system in which the produce can be moved from farms to retail stores overseas in saleable condition.

This program includes a transportation seminar program that updates shippers on new technology and provides advice on economic and operational questions relative to shipping agricultural products and livestock. FAS recently published a guide on ocean liner cargo services.

Cooperation with State Departments of Agriculture. Without reducing the importance of cooperators, FAS has also developed working relationships with every state department of agriculture. These states and their regional organizations have committed manpower and funds to joint promotional efforts overseas. To date the major functions of state representatives have been to provide a further link between FAS and potential food exporters, to assist in carrying out selected exhibitions, and to perform selected market surveys.

Trade Offices. Title IV of the Agricultural Trade Act of 1978 authorized the establishment of between 6 and 25 U.S. Agricultural Trade Offices. Using existing authority, the U.S. Department of Agriculture opened its first trade office in London, England in May 1978. Since the passage of the Act, the Department has staffed six additional offices in Miami, Manama, Bahrain, Hamburg, Seoul, and Warsaw.

To facilitate providing a one-stop marketing support center for U.S. agricultural exporters and potential buyers, and to coordinate market development activities sponsored by the Department of Agriculture, the Department's market development cooperators have been co-located within the trade office structure where such co-location was determined to be mutually advantageous.

Broad criteria used in the selection of Market Development program activities are briefly summarized below. To be approved, a project must give promise of effectively contributing to the creation, expansion, or maintenance of markets abroad.

Selection of Cooperators

1. Nonprofit U.S. agricultural trade organizations to the extent practical.

2. Capable of representing all or at least broad segments of the producers and related industry sectors of the commodity or commodities concerned.

3. Willing to cooperate with FAS in long-term programs aimed at developing and maintaining foreign markets for commercial sales of U.S. agricultural products.

4. Able to provide competent staff and financial support to assure adequate development, supervision, and execution of project activities.

Selection of Commodities

1. U.S. producers capable of producing commodities in excess of domestic consumption requirements.

2. Willingness and ability of U.S. private organizations to back up promotional activities with aggressive selling and adequate supplies of commodities of the quality desired by foreign buyers.

3. Competition in the market.

Selection of Countries

1. Countries that possess market potential and whose low demand for commodities has been due to a lack of availability and consumer knowledge.

2. U.S. commodities can be offered for sale at competitive prices under conditions of "fair" competition with foreign producers.

3. Necessary infrastructure to market U.S. products within the foreign countries is present or can be developed.

4. Trade barriers are not so permanent or repressive as to reduce market access below minimal acceptable levels for the foreseeable future.

5. The extent to which the project will help in developing a future commercial market.

6. Current commercial purchases by the importing country.

Selection of Activity

Activities are selected according to the particular characteristics and uses of the commodities as related to the particular characteristics of the markets under consideration. Hence, a particular "mix" of activities containing selected elements of market research, technical assistance, trade servicing, and educational, promotional, or advertising activities aimed at foreign businessmen or consumers is designed for each product in each distinct foreign market. Specific factors considered are:

1. U.S. market share.

2. Trade distribution and awareness of U.S. commodity and usage.

3. Consumer awareness of product.

4. Probable success in maintaining or increasing consumption and imports of U.S. agricultural commodities for U.S. dollars.

5. Long range contribution to U.S. agricultural exports.

6. The importance of exports of the commodities involved to U.S. agriculture and the U.S. balance of payments.

7. The extent to which the project is in harmony with U.S. foreign policy.

8. Need for technical assistance in marketing commodity.

9. Need for public education in the preparation and more effective utilization of the commodity.

Commodity Intelligence and Policy Activities

Attache Service. Attaches, assigned to 74 U.S. embassies covering 120 countries, work to achieve maximum access to foreign markets for U.S. agricultural products. They provide information on a scheduled and alert basis that prepares U.S. agriculture for changes in world demand and work to safeguard American farmers and farm programs against unfair and injurious import competition.

The agricultural attache supports the Market Development effort in his area of assignment with on-the-spot supervision and administrative control of cooperator programs. FAS multi-commodity activities are supervised and frequently implemented by the Office of the Agricultural Attache. The Agricultural Attache also provides substantial support to U.S. tradespeople and other officials carrying out activities in his area of assignment.

Commodity Analysis. The FAS Commodity Program provides data relating to foreign demand, production, and supply and distribution of agricultural commodities. Data are collected from attache field reports, from special field studies conducted in Washington, and from various other public

sources. The Commodity Program area conducts advanced economic analyses in order to produce short-term commodity forecasts, commodity status summaries and market potential guidance on a country and area basis. In addition, FAS is beginning to utilize newly developed techniques in order to assess the impact of natural or manmade events which may affect expected production of foreign crops of major economic importance to the United States.

Trade Policy. The FAS Trade Policy program, working within the interagency trade policy process area, coordinates and directs the responsibilities of the Department of Agriculture in international agreement programs and negotiations. Most importantly, the program area identifies foreign trade barriers which discourage the export of U.S. farm products, and then works with the office of the U.S. Trade Representative to remove or reduce those barriers. The program area made a significant contribution to the successful conclusion of the Multilateral Trade Negotiations and will now participate in monitoring the implementation of MTN tariff concessions and the series of codes for the conduct of international trade. Following the negotiations, FAS participated in a full reporting of the negotiations to Congress and the public. FAS also participated in the continuing negotiation with countries that had not completed their MTN packages and helped develop U.S. positions regarding the implementation of the MTN codes and non-tariff measures.

The program area also works to improve capabilities for negotiating bilaterally on individual trade barriers. During 1979, FAS and USTR successfully worked to avert potential or existing barriers to U.S. agricultural exports.

FAS also supports efforts to increase trade with non-market economy countries. FAS participated in the pre-negotiation assessments of trade issues and the drafting of the Trade Agreement that was concluded with the Peoples Republic of China in May 1979.

Future Program Directions - Challenges and Opportunities

FAS market development activities will need to become even more effective in the future: first, to meet the challenges posed by new market opportunities; and second, to meet the challenges posed by continuing problems such as inadequate knowledge of American products, transportation and administrative problems, and government policies designed to restrict trade or subsidize competition.

New activities have been mandated by law, such as the establishment of Trade Offices pursuant to the Agricultural Trade Act and the Trade Agreements Act. The latter office reflects a more general need to vigorously pursue U.S. rights under new MTN agreements.

With FAS program funds still at the same level in current dollars as they were ten years ago -- and hence much lower in real terms -- most resources are absorbed in carrying out only the most vital activities in developed markets. Very little is left over for potential new markets.

Market Development Competition - Other Countries

The United States faces strong competition in promoting agricultural products in overseas markets. Market promotion by our leading competitors in world agricultural markets continues to grow in size and scope (countries listed in Table I). Expenditures on these programs totaled over $206 million in 1979, an 11.1 percent increase over the 1978 level, and 247 percent over the level just ten years ago. The United States market development budget as a percent of exports is far smaller than any of its competitors. In FY 79, these expenditures equaled about one-tenth of one percent (.11%) compared to 1.12 percent and .99 percent in New Zealand and Australia, respectively.

Australia operates a strong market development program through export oriented marketing boards and government agencies. Government funds are used for direct financial assistance to the marketing board, as well as for finance, insurance, and incentive programs. The Trade Commissioner Service, comprised of a staff of 160 commissioners located in 46 countries, is involved in trade fairs, trade surveys and inquiries, trade missions, technical assistance, and distribution of advertising materials and publications. Most trade promotion is carried out through marketing boards representing commodity interests.

Canadian market development programs for agricultural products are carried out by the Federal Government, crown corporations, provincial governments, marketing boards, growers associations, and private companies. The Canadian International Grain Institute provides training courses for foreign and domestic industry representatives, and customers (existing or potential) of grains and oilseeds. The courses cover grain handling, marketing, and technology. The Institute works with the Candian Wheat Board, the Canadian Grain Commission, and various government departments. The Canadian Wheat Board sponsors trade missions to Europe, Asia, and the Middle East, with some activity in the Caribbean, Brazil, and Mexico. Market research and product development programs are being carried out with feed and malting barley and durum wheat varieties in overseas laboratories and bakeries.

The Danish Agricultural Marketing Board and commodity export boards are the main organizations that promote agricultural products from Denmark. The Export Promotion Council and its secretariat coordinate all foreign market development activities utilizing government funds. The Agricultural Marketing Board functions as an umbrella organization for export promotion of agricultural products in general. The Board carries out market analyses, in-store promotions, and restaurant and consumer campaigns; participates in large international agricultural fairs; and arranges the visits of trade and press teams. Commodity Export Boards contribute the bulk of market development funds and act as coordination channels for overall market development activities. Most active are the Boards for butter, cheese, bacon and pork, beef, poultry and eggs, and fruits and vegetables.

French promotion of wine, dairy products, fruits and vegetables, meat products, livestock, and grain is conducted by the government, quasi-governmental agencies, and private corporations. SOPEXA, responsible for market promotion of products other than field crops, participates in international trade fairs and conducts point-of-sal promotions. COFRANIMEX

promotes livestock exports for breeding purposes through trade shows, publicity, and trade teams. The Interprofessional Cereals Board promotes cereal through trade teams and promotional materials. The French Center for Foreign Trade conducts marketing and production studies for French exporters.

Israeli market development activities for citrus, avocadoes, flowers, strawberries, and processed fruits and vegetables are conducted by government-producer market boards. The Agricultural Export Company (AGREXCO) is responsible for the promotion of all agricultural exports except citrus, citrus products, cotton, and peanuts. A quasi-government organization, AGREXCO concentrates on promoting avocadoes, celery, tomatoes, flowers, and dates. Promotional activities, concentrated in France, Germany, Holland, Scandinavia, Switzerland, and the United Kingdom, include trade teams, trade shows, point-of-purchase (POP) demonstrations, and TV and radio advertising. The Citrus Marketing Board, also a quasi-governmental organization, is responsible for promoting all fresh citrus overseas, and maintains offices in France, Germany, Scandinavia, and the United Kingdom. Grapefruits, oranges, and lemons are promoted through trade teams, trade shows, POP promotions, and TV, radio, and magazine advertising. The Peanut Production and Marketing Board, Cotton Producing and Marketing Board, and Citrus Products Export Board are quasi-governmental organizations.

Italian citrus, fresh fruits and vegetables, and wines are promoted by the Ministry of Agriculture, private organizations, local Chambers of Commerce, and the Institute of Foreign Trade (IFT) which provide all public organizations with technical services for organizing and coordinating Italian participation in fairs, exhibits, technical meetings, and regional councils.

Dutch agricultural products are promoted by the Ministry of Agriculture and 13 Dutch trade organizations. The Ministry of Agriculture assists producers and processors with commercial displays and is represented on the governing boards of many trade associations and bureaus. The Ministry participates in international shows and "Dutch Weeks" to enhance the prestige of Dutch agricultural products, initiate market research, arrange technical seminars, and disseminate market information.

The Spanish Ministry of Commerce administers and finances agricultural trade fairs, trade missions, and the publication of promotional materials. Only agricultural products produced in surplus and for which there is considered to be growth potential are eligible for overseas promotion through the Trade Missions program. This includes fresh and processed fruits and vegetables, table olives, wines, sherry, almonds, filberts, and flowers. Processed foods, olive oil, and occasionally citrus, are shown at trade fairs.

Promotion of New Zealand lamb, butter, apples, cheese, and carpet wool is conducted by producer-owned boards and, to a lesser extent, the New Zealand Department of Trade and Industry. Foreign travel by board members, industry representatives, and government officials is a key part of market promotion work. Activities also include participation in trade fairs and in-store promotions.

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Table 1

Agricultural Exports and Market Development Expenditures of Principal Competing Countries FY 79[1]

Estimated 1979

Country	Exports (Bil. $)	Market Development (Mil. $)	Expenditures as Percent of Exports
Australia	6.6	65.4	0.99
Canada [2]	6.3	11.1	0.18
Denmark [2]	4.6	26.3	0.57
France [2]	15.4	23.7	0.15
Israel [3]	.78	7.2	0.92
Netherlands [2], [3]	14.9	24.5	0.16
New Zealand	3.0	33.6	1.12
South Africa [2]	1.7	15.0	0.88
Total	53.3	206.8	0.39[5]
United States [4]	32.0	34.1	0.11

1 Exchange rates used are from the following sources: Treasury Reporting Rates of Exchange, Department of the Treasury Fiscal Service, Bureau of Government Financial Operations, the June or December quarter.

2 Data based on Calendar Year.

3 Information from Embassy.

4 Includes Foreign Agricultural Service funds and contributions of U.S. Market Development Cooperators. Foreign data include both government and producer funds.

5 Trade weighted average

CHAPTER 4: EXPORT ASSISTANCE AND EXPORT PROGRAMS FOR SMALL BUSINESS AND MINORITY-OWNED FIRMS

This section of the report directs itself to the export assistance programs which are primarily responsive to the needs of small businesses and minority-owned firms. These activit.es are centered in selected programs of the Small Business Administration (SBA); the Minority Business Development Agency (MBDA); and in the International Trade Administration (ITA) which coordinates efforts to assist small businesses and minority-owned firms to begin or continue exporting. These programs, in turn, are coordinated with programs of other agencies through the Trade Policy Committee mechanism.

THE SMALL BUSINESS ADMINISTRATION

Introduction

SBA's unique mission is to increase the market share, representativeness, competitiveness, and absolute number of small businesses in the economy. In carrying out its legislative mandate to ". . . aid, counsel, assist, and protect, insofar as is possible, the interests of the small business in order to preserve free enterprise, . . . and to maintain and strengthen the overall economy of the Nation," the Agency regards exporting as a significant opportunity for increasing small business sales and employment.

The Agency recognizes that, although almost two-thirds of the firms that export are small or medium-sized businesses, there are an estimated 20,000 additional small or medium-sized firms which could also export successfully if provided access to the necessary information and financing required. Two major reasons small businesses do not export, as indicated by various studies are: 1) lack of information on specific overseas markets and knowledge of how to sell in these markets; and 2) access to the financing required to undertake export operations.

SBA, therefore, consistent with its mandate to be an advocate for small businesses at all levels of Government, cooperates with and assists other Federal, State, and local institutions in meeting the needs of small businesses. In accordance with the Small Business Act and other similar directives, the Agency offers various programs and services to Small Business Exporters.

Organization

The Administrator of the Agency formulates overall Agency policy toward international trade assistance for small business. The Associate Adminstrator for Finance, the Associate Adminstrator for Investment, the Associate Administrator for Management Assistance, and the Chief Counsel for Advocacy then formulate specific guidelines and programmatic directives

concerning export promot on for use by the Agency's 110 field offices. Ten Regional Administrators and 64 District Directors are provided with this management guidance and are responsible for its implementation on a day-to-day basis. Overall coordination of the Agency's activities in export promotion is the function of the Office of International Trade in the Washington central office.

Full authority for the allocation of local resources and application of specific programs to assist the small business exporter resides with the Regional Administrators, District Directors and Branch Managers outside of Washington.

To be eligible for certain of its programs and services, the Agency has developed size standards for small businesses. In March 1980, the Agency proposed a single criterion for determining size -- total number of employees per firm -- to replace the multiple size criterion. The criterion will clarify and simplify for both small business exporters and the SBA the implementation of its export assistance programs.

Programs

SBA offers various programs and services through its field offices to assist prospective small exporters. Those exporters wishing to expand their international marketing operations can also be assisted through programs of management and financial assistance. The extent to which these services are available varies among SBA field offices.

Management and Technical Assistance. Various services are available from SBA field offices to provide export counseling for potential and current small business exporters. These services are available at no cost to eligible recipients and may include any or all of the following:

- Members of the Service Corps of Retired Executives (SCORE) and the Active Corps of Executives (ACE), who have had many years of practical experience in international trade, help the small business entrepreneur make a preliminary assessment of his/her export potential. Since a basic requirement for successful overseas sales is a strong domestic business operation, these volunteers help a small business client to identify any present managerial, financial, or technical problems which must be solved initially. There are presently over 675 such business executives who have had significant export-import experience and are available to assist the small business exporter.

- The Small Business Institute (SBI) program makes senior and graduate level students of international business available through many SBA District Offices to provide additional overseas marketing assistance to small businesses. Under this program, students from over 450 colleges and universities participate with the SBA to provide more in-depth and long-term counseling to small businesses in their areas. At various Small Business Development Centers (SBDC's)

located within certain state colleges and private universities, additional export counseling and assistance is offered through their International Trade Centers. These centers exist at the Rutgers Universtiy, the University of Georgia, and the University of Alabama.

- SBA's Call Contract program, which utilizes professional management and technical consultants, also assists eligible small businss exporters. Due to the nature of their products and production capabilities, some small or minority businesses require highly sophisticated marketing information and production technology to identify and service overseas markets. Such specialized export assistance is provided at no cost to an eligible client through this program.

- Export workshops are conducted periodically in cities across the country under the co-sponsorship of SBA District Offices, the U.S. Department of Commerce, and other agencies and institutions concerned with international trade development. These programs discuss, the procedures and techniques involved in exporting -- ranging from identifying overseas markets to ensuring that payment for exported goods and services is received. Various publications, including "Export Marketing for Smaller Firms," "Market Overseas with U.S. Government Help," and "Negotiating International Sales Contracts," are also made available through the Agency to small business exporters.

Financial Assistance. Delivery of SBA's financial assistance programs is the responsibility of the Agency's local field offices. Except on a pilot basis in five selected cities, the SBA does not have a specific program for export-oriented lending. Financing for most export-related purposes is available through SBA's current short-term and long-term business loan programs. Funds obtained through these programs may be used to purchase machinery, facilities, or materials needed to sell products overseas, as well as for working capital. Working capital loans may be used to defray the costs of developing or penetrating foreign markets.

SBA can also assist a commercial bank in providing short-term working capital to a manufacturer for the additional labor or materials required to perform a specific export sales contract that has already been secured. Since the supply of direct SBA loan funds is very limited, the SBA emphasizes private lender participation and SBA guarantee authority. Over 90 percent of the Agency's regular business loans are made under the guarantee plan.

Regular SBA business loans extend up to ten years, except those portions of loans used to acquire real property or construction facilities which may have a maturity of 20 years. However, working capital loans usually are limited to six years.

In 1980, the SBA introduced a pilot Revolving Line of Credit program for small firms engaged in exporting. Using SBA's guarantee loan plan, the program is designed to provide additional support to finance small business exports thorugh a group of selected banks in four states: California, Illinois, New York, and Texas. Should it prove effective after a six-month

trial, other regions and banks will be added. Under the current pilot plan, SBA guarantees repayment to the participating private sector lender of 90 percent of export revolving line of credit loans.

Other Programs. The Agency has developed a Procurement Automated Source System (PASS) to profile the products and services available from registered small and minority businesses. The export interest of these registrants has been recorded and this data will be tied into the Commerce Department's WITS program. Such linkage will facilitate the exchange of information on export opportunities for small businesses generated by the recent Multilateral Trade Negotiation Agreements.

The Office of the Chief Council for Advocacy is developing a small business data base which will incorporate selected information on small business exports and is conducting research into the problems and needs of the small business export community.

In order to more effectively direct agency programs toward small business exporters, the Agency plans to provide training in export marketing and financing to selected Agency personnel and volunteer counselors.

In the Fall of 1977 an Interagency Committee on Small Business Export and Investment was established to facilitate attention by various Federal departments and agencies toward the specific needs of the small or minority business exporter. The Committee is composed of senior representatives of the Departments of Treasury, Commerce, and Agriculture, the Office of the U.S. Trade Representative, the Export-Import Bank, and the Overseas Private Investment Corporation. It is chaired by the SBA Administrator. A major effort of the Committee has been to sponsor export and investment conferences designed to acquaint the small business community with Government and private sector programs of assistance available to help them sell their products or services overseas.

Table 1 summarizes the activity of various agency programs in assisting small business exporters since 1978.

INTERNATIONAL TRADE ADMINISTRATION ASSISTANCE TO SMALL BUSINESS

ITA has developed over twenty programs to assist U.S. firms to increase exports or enter export markets for the first time. While any size company may use these services, small businesses are particularly responsive to them. Table 2, which lists ITA program activities, graphically illustrates the response of small business to ITA services.

The table shows that a trio of sales lead information programs, the Agent Distributor Service, the Foreign Traders program and the New Product Information Service, count small business as about 70 percent of their clientele.

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Table 1

SUMMARY OF ACTIVITIES OF SBA IN ASSISTING
SMALL BUSINESS EXPORTERS (FY 1978-80)

	FY 78	FY 79	FY 80 (As of 3/80)	Projected FY 80
Number of firms using International Trade Counseling	4,679	6,942	2,653	7,500
International Trade Training:				
- No. of Programs	195	312	212	375
- No. of Attendees	11,574	19,881	8,913	21,000
Loans for Export-Related Purposes[1]				
- Number		21		
- Amount	$1.2 M	$5.4 M	$0.9 M	[2]
Number of Firms Registered in PASS Interested in Exporting	NA	4,025	5,677	7,788

NA - Not available

Small and medium-sized companies account for 80 percent and 20 percent, respectively, of the Tailored Export Marketing Plan Service's clients. Another widely used service is the Trade Opportunities Program (TOP), which sends sales leads from overseas directly to 8000 subscriber exporters, of which 5000 are in the small business category. Of the 76,000 companies that contacted the Commerce trade specialists in 1979 for assistance, 45 percent were estimated to be small business.

For the past two years, the Small Business Administration, and the USCS have worked closely to assist small companies entering foreign markets. Export seminars have been sponsored jointly by Commerce and SBA. Whenever SBA identifies a small manufacturer with export potential, they are referred to Commerce trade specialists for export counseling. When Commerce identifies a firm who could benefit by the financial and management consulting services of SBA, that firm is introduced to the appropriate official in an SBA local office.

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1 An export-related loan is defined as a loan to a firm of which over 51 percent of its business is in exporting.

2 Estimates of future bank requests for SBA participation in such lending are not possible.

Table 2

SIZE AND EXPERIENCE ESTIMATES[1] OF U.S. FIRMS ASSISTED BY SELECTED COMMERCE TRADE PROMOTION PROGRAMS - FY 79

Program	BREAKDOWN BY SIZE: Small #	Small %	Medium #	Medium %	Large #	Large %	BREAKDOWN BY EXPERIENCE: NEW NEW #	NEW NEW %	OLD #	OLD %	Total Assisted
E & E Star Award[2]	[illegible]	49%	37	41%	4	10%	NA[2]	NA[2]	41	100%	41
Business Counseling[3]	3,877	60%	1,293	20%	1,293	20%	3,877	60%	2,586	40%	6,463*
Country Market Info Analysis[4]	34,200	45%	26,600	35%	15,200	20%	45,600	60%	30,400	40%	76,000*
[illegible][5]	720	8%	1,055	11%	350	4%	---	---	---	---	9,425*
[illegible]	[illegible]	80%	2	20%	0	0%	10	100%	0	0%	10
[illegible][6]											
[illegible] Bulletin	1,759	83%	[illegible]	13%	65	4%	465	22%	1,665	80%	2,119
[illegible]	[illegible]	51%	[illegible]	32%	[illegible]	17%	[illegible]	41%	3,600	60%	5,933

Footnotes follow chart

SIZE AND EXPERIENCE ESTIMATES[1] OF U.S. FIRMS ASSISTED BY
SELECTED COMMERCE TRADE PROMOTION PROGRAMS - FY 79
(page 2)

	Small		Medium		Large		NTE/NTM		OTM		Total Assisted
	#	%	#	%	#	%	#	%	#	%	
Major Export Projects & SIPS[7]	252	21%	768	64%	180	15%	---	---	---	---	1,200*
Overseas Investment Opportunities	230	15%	[illegible]	[illegible]	1,229	80%	---	---	---	---	1,536*
EMLS	1,702	74%	437	19%	161	7%	---	---	---	---	2,300* 2,210*
ADS	819	63%	273	21%	208	16%	NTE 780 NTM 520	60% 40%	0	0%	1,300* 2,000*
WTDRS	4,000	50%	2,000	25%	2,000	25%	1,320	14%	6,880	86%	8,000 30,539*
PDS-[illegible]	648	35%	3,693	64%	862	21%	2,339	56%	1,837	44%	4,176*
**Trade Center Exhibitions[illegible]	399	14%	1,873	65%	589	21%	1,861	66%	1,000	34%	2,861*
**ROP	278	15%	981	63%	272	21%	450	35%	836	65%	1,286
**DMSs	[illegible]	94%	18	62%	1	4%	28	97%	1	3%	29
Trade Fairs[illegible]	[illegible]	8%	267	[illegible]	157	34%	254	56%	201	44%	455*

SIZE AND EXPERIENCE ESTIMATES[1] OF U.S. FIRMS ASSISTED BY
SELECTED COMMERCE TRADE PROMOTION PROGRAMS - FY 79
(page 3)

	Small		Medium		Large		NTE/NTM		OTM		Total Assisted
	#	%	#	%	#	%	#	%	#	%	
Trade Missions [8] (per stop)	93	19%	290	58%	114	23%	386	78%	111	22%	497*
--Seminars	18	13%	77	55%	46	32%	98	70%	43	30%	141
--Specialized	33	15%	132	61%	51	24%	170	79%	46	21%	216
--IOGA	42	30%	81	58%	17	12%	118	84%	22	16%	140
Catalog Shows	1,080	40%	1,080	40%	540	20%	2,200	80%	540	20%	2,700*
Video Catalog Exhibitions	17	20%	52	62%	17	20%	59	70%	27	30%	86
Foreign Buyer Program	800	35%	460	20%	1,040	45%	1,150	50%	1,150	50%	2,300*
New Product Information Service [10]	600	81%	125	17%	15	2%	403	54.5%	337	45.5%	740

* - Total requested items, includes repeat users

* - Number of individual requests

FOOTNOTES TO TABLE 2

1. Except where otherwise noted, small firms are defined as having less than $5 million in annual sales and/or 100 or fewer employees, medium firms as having from $5 million to $100 million in annual sales and/or from 100 to 999 employees and large firms as having more than $100 million in annual sales and/or more than 999 employees. NTE/NTM firms are defined as exporting for less than 3 years, while OTM firms have exported for 3 years or more.

2. To qualify for the program, firms must have exported for 3 years or more.

3. Total includes telephone inquiries, visits and written inquiries.

4. Figures also combine letters, telephone calls and visits.

5. Definition of size used - small, less than $10 million in annual sales; medium, from $10 million to $50 million in annual sales; and large, more than $50 million in annual sales.

6. Totals for TOPS services reflect the number of subscribers, not the number of separate firm requests.

7. Totals include 300 NATO firms.

8. Data taken from the Planning & Evaluation Data System (PEDS).

9. Includes major shows and off-site exhibitions.

10. Figures represent annualized data derived from 3 months of actual responses.

NOTE: Estimates are based on the expert judgements of the program managers.

In cooperation with the Minority Business Developement Agency, ITA has developed the Minority Business Export Assistance Program (MBEAP). MBEAP assists minority-owned firms with export potential to penetrate foreign markets. Its services are tailored to meet the special requirements of minority-owned firms. MBDA and ITA work closely together to identify minority-owned firms with export potential. Firms receive counseling and advice from the USCS and the MBDA staff. In addition, minority-owned firms participate in export seminars held jointly by ITA and MBDA.

An important program developed through the MBEAP is the "Role Model" program. In 1979, several firms with good export potential were selected to serve as examples for other minority-owned firms. The firms attended a seminar on exporting techniques and a specially tailored export marketing plan was developed for each company.

In the future, MBDA and ITA will monitor and provide special assistance to a limited number of minority firms with significant export potential. It is anticipated that these firms, after being walked through an individual Tailored Export Marketing Plan, will function as "Role Models." In this capacity, the export representative of each "Role Model" firm could participate in export seminars and generally be available to share his/her international marketing expertise with other export capable minority firms.

Special Issues for Small Business in Export Development

While small U.S. businesses are among the major users of Government export programs, it is evident from the first White House Conference on Small Business, recently held in Washington, that they feel a need for special assistance to export. Among the most important recommendations by trade delegates at the Conference on Small Business were:

1. Congress should broaden the tax deferral options of the Domestic International Sales Corporation (DISC) and provide for the developement of an American Trading Company which would automatically qualify as a DISC.

2. Congress should provide for support and expand the use of all officially recognized trade fairs and trade center shows abroad with small business participation. It should also continue to encourage Commerce to increase the promotion of foreign buyers to the United States.

3. The Federal Government should establish convenient one-stop service shops to include export services of all Federal agencies under the guidance of the Department of Commerce.

4. Eximbank should establish a special small business funding program through commercial banks and should consider discounting loans to support international sales. It should also develop a cooperative program with the SBA for pre-export financing.

5. The President and Congress should consolidate in an existing cabinet level department a unified international trade administration encompassing all executive agencies.

CHAPTER 5: OTHER EXPORT PROMOTION ACTIVITIES

MULTILATERAL TRADE NEGOTIATIONS - IMPLEMENTATION

The Multilateral Trade Negotiations, the so-called "Tokyo Round," was the latest round of trade negotiations held under the auspices of the General Agreement on Tariffs and Trade (GATT). It was the most comprehensive and far-reaching trade negotiation ever held and involved 99 countries and resulted in both some new agreements and agreements in areas of trade policy untouched in 30 years.

Traditionally trade negotiations have centered on the reduction of import duties, and the MTN agreements include significant tariff reductions. Foreign governments agreed to significant tariff reductions on thousands of products sold overseas by U.S. exporters. In some cases, tariff levels had served as effective barriers to trade, and their reduction will create trade opportunities where none existed before. For example, industrial tariffs of the United States and other developed countries affecting more than $100 billion worth of dutiable international trade will be reduced by an average of 35 percent over the next several years. Foreign concessions on selected agricultural products are expected to provide about $4 billion in benefits to U.S. agricultural exports or over 15 percent of all U.S. agricultural exports and about one quarter of those subject to tariffs and similar restraints.

However, the most important results of the MTN are found in the new international code agreements that regulate the use of nontariff measures affecting trade. They profoundly change the entire system within which international trade is conducted by establishing a more extensive set of international rules than those which previously existed. For example:

The new Government Procurement Agreement mandates that signatories will not discriminate against or among other participating nations in purchases covered by the Agreement, opening a $20 billion market which previously had been all but closed to U.S. exporters.

The MTN Agreement on Subsidies and Countervailing Measures and the Agreement on Antidumping should greatly enhance the competitiveness of American products both at home and in overseas markets by regulating the use of subsidies and dumping practices in international commerce and by specifying countermeasures that may be taken in cases of unfair subsidy or dumping practices.

The new Standards Code seeks to discourage the discriminatory development and implementation of product standards and certification systems that unjustifiably restrain trade. Under the new regime, U.S. exporters whose products are barred from foreign markets because of the standards set for their products will be able to lodge complaints and secure reviews of foreign standards practices to determine whether they conform with Code provisions. Export opportunities will be enhanced by the Code's principle that, based on their technical merits, imported products are to be treated no less favorably than domestic products.

The Customs Valuation Agreement lays down new international rules which will result in uniform and equitable valuation for duty assessment purposes of all classes of trade. The adoption of this system should eliminate arbitrary practices by some countries such as "uplifting" the dutiable value of imported goods.

The new Import Licensing Agreement attempts to reduce administrative impediments to trade by simplifying and harmonizing import license procedures.

The new Agreement on Trade in Civil Aircraft will eliminate import duties on civil aircraft and reduce nontariff barriers in this sector, thus assuring competitive international markets for U.S. aircraft producers.

The Multilateral Agricultural Framework Agreement and the Meat and Dairy Agreements are designed to enhance cooperation and to provide for an exchange of information among signatories.

Office of the U.S. Trade Representative

In accordance with the recent reorganization of the international trade functions of the U.S. Government, the U.S. Trade Representative (USTR) is now charged with providing leadership in both the formulation and implementation of all U.S. trade policy matters, including U.S. export policy. In this regard, a key USTR responsibility is to ensure the enforcement of U.S. rights under the various MTN tariff and code agreements, which is of critical importance if U.S. exports are to receive maximum benefits resulting from the MTN. Currently, USTR is attempting to convince as many countries as possible to become signatories to the MTN code agreements in order to expand the coverage of the codes and make them as effective as possible.

USTR anticipates that, in the post MTN period, it will use the temporary extensions of negotiating authority on tariffs and nontariff measures that have been delegated by Congress to negotiate selective agreements that will benefit U.S. exports. Two such agreements could cover commercial counterfeiting practices and safeguards.

To ensure that the U.S. fully utilizes the MTN opportunities, the private sector advisory committee system that proved so effective during the negotiation of the agreements will be continued and expanded. USTR will jointly administer industry, agriculture and labor policy, and sector advisory committees in cooperation with the Departments of Commerce, Agriculture and Labor, and will solely manage a Presidentially appointed advisory committee which includes both producers and consumers. The advisory committee structure will be expanded to include services and functional issues, such as standards.

Department of Commerce

A key element in the MTN implementation is the creation of the Trade Advisory Center in the Department of Commerce. The Center serves as a central contact to which the business community is invited to direct inquiries and concerns regarding policy-related trade problems and legal rights and remedies created

by the U.S. trade agreements. The Center coordinates private sector involvement in the formulation of U.S. trade policy through the Industry onsultations program which is jointly administered with USTR. Finally, the Center coordinates information and education programs to promote public understanding of the MTN codes and their potential.

Information Activities. A crucial first step is making U.S. business aware of the potential benefits of the MTN agreements. Thus, the information and education program coordinated by the Center spearheads Commerce's efforts to bring the benefits of the U.S. trade agreements program home to as wide a range of businesses and communities as possible. This reflects the Commerce Department's goal to involve all domestic economic sectors, large and small, experienced and inexperienced, in the U.S. export effort. The Center has published nine pamphlets which briefly review the features, enforcement provisions, and implementation efforts of the MTN codes and the tariff agreement. The Center also publishes a much more extensive series of detailed "plain English" analyses of each of the MTN codes. The first volume in this series, an analysis of the Subsidies Code, is now available through the Center.

The information services of the Center also include seminars at locations across the country that are organized by the USCS and draw on experts provided by the Center. Department trade policy experts also will appear at meetings and conferences sponsored by business, state and local governments, universities, and other interested parties. The first major seminar was held May 19 in San Francisco.

These information and education programs can be tailored to meet the particular interests of local business communities and the host organizations.

Targeting. In order to obtain the greatest benefits from the MTN codes it is essential that promotional efforts and attention of the U.S. business community be directed to those industrial sectors and countries where new export opportunities exist as a result of MTN agreements. As a first step, Commerce is identifying where these opportunities exist.

The extent of new trade opportunities depends not only on the size of the tariff reductions, but also on the size of the potential market from which access has been increased as well as the relative competitiveness of U.S. products. A country-by-country analysis is now underway. These targeting efforts will identify the greatest opportunities both by country and by industry.

This country and product specific information will be made available to the private sector so that firms can orient their marketing efforts appropriately. The trade specialists of the U.S. Commercial Service will utilize the information in counseling new exporters as well as providing it to more experienced firms.

ITA Trade Development also intends to target promotional activities to the sectors and markets where additional assistance appears warranted. Thus, for example, in determining where trade fairs should be sponsored, MTN created opportunities will play a significant role.

Current analyses that identify new trade opportunities are limited to the tariff reductions and the government procurement code. The other codes do not now lend themselves to the identification of specific opportunities; however, such opportunities will be integrated in the overall promotional efforts whenever possible.

Government Procurement. The government procurement code takes effect January 1, 1981. The code's potential to create extensive new markets for American exporters requires promotional actions in three areas. 1) ensuring that U.S. firms know about specific opportunities; 2) enhancing the capability of U.S. firms to bid; and 3) ensuring that foreign governments carry out the code's provisions properly.

Commerce plans to acquire tender notices and summaries from Foreign Commercial Service posts. These tender notices will be translated (the code requires the summaries to be in a GATT language, English or French) and transmitted to Washington. Using the Trade Opportunities Program, the notices will be matched to subscribers by the TOP computer system (This program is currently processing approximately 4000 Foreign Government tenders per year) and communicated to them. Prior to beginning the program, a campaign will be launched to attract new subscribers to the TOP for the express purpose of acquiring tender notices. In addition to the regular dissemination of notices through the TOP, arrangements will be made for secondary dissemination through other organizations such as SBA, trade associations, and small business groups. These notices also will be published in "Commerce Business Daily." As WITS becomes operational it will transmit and disseminate information on Foreign Government tenders directly. In addition to the automated dissemination of notices, those tenders which appear to offer significant opportunities will be communicated directly to firms and trade associations by Commerce trade specialists.

Firms need the tender documents to bid. Traditionally firms have procured these documents themselves, but this often imposes significant costs. In order to facilitate the process, Commerce will obtain the documents through the FCS, but rely upon the private sector to translate, reproduce, and ship the documents at cost to U.S. companies.

Providing U.S. companies with information on tenders is only part of the task. Guides to government procurement regulations and procedures for each signatory country will be prepared. Country marketing specialists in ITA also will be available to answer additional questions. Education seminars on foreign government bidding procedures also will be offered. Firms, however, will be responsible for preparing the bids themselves.

Some special problems exist. Many countries either require a bidder to have a local agent or consider it advisable to do so. Since the code only requires a thirty day window for bids, a firm without an agent would find it almost impossible to acquire an agent in time to bid. Several solutions to this problem exist. First, because many of the signatories also will use selective bidding lists, potential U.S. bidders will be encouraged to get on these lists in advance and to acquire local representation. Second, Commerce may encourage the use of intermediaries such as export trading companies and export management companies which will search for small and medium-sized firms that produce the appropriate products.

A final phase of the implementation effort involves follow-up and monitoring. The effectiveness of U.S. firms' efforts and success in bidding will be evaluated through a sample survey. Abroad, Commerce will monitor foreign government adherence to the agreement, particularly the nondiscrimination provisions.

Department of Agriculture

In addition to foreign tariff concessions obtained in the MTN, U.S. agriculture will benefit from almost all the new international code agreements and especially those on subsidies, countervailing duties, and product standards. Other agricultural benefits should result from the information exchange agreements negotiated in the MTN, including the meat and dairy sectors.

The MTN will create opportunities to expand U.S. agricultural export markets. Because of the constructive advisory role played in the MTN by U.S. producers, processors, and traders in identifying the export priorities of U.S. agriculture, the advisory committee mechanism will continue to provide the agricultural sector with a strong voice in future trade policy decisions.

Agricultural attaches and counselors in U.S. embassies abroad will continue the long-standing practice of reporting changes in host country domestic policies that might affect U.S. agricultural trade, (e.g. export subsidies, import licensing systems, changes in import duties). This information will go to a central point in USDA where it will be disseminated to interested parties.

The Trade Opportunity Referral System of USDA will continue to operate as a way of advising potential U.S. exporters of possible sales opportunities abroad. This system, combined with information on domestic policies, will better equip our producers for future problems and opportunities that may arise in international trade.

ASSISTANCE TO SERVICE INDUSTRIES

A major portion of future economic growth and job creation, not just in the United States but in the entire industrial world, is expected to originate in the services sector. Domestically, the service industries employ 7 out of 10 employed Americans and account for 65 percent of America's GNP. Internationally, services have assumed growing importance in America's balance of payments. The growing importance of service industries has led the U.S. Government to upgrade its assistance to services.

A number of organizational steps have been taken to improve the U.S. Government's responsiveness to the concerns of our service industries. First, the Commerce Department has established an International Services Division in the Office of International Finance and Investment. This unit creates a central point in Commerce for coordination and communication with the private sector on export promotion and assistance and industry specific problems.

Second, the recent trade reorganization plan assigns the role of trade policy leadership in services to the U.S. Trade Representative. Primary responsibility for specific service sectors remains with the different agencies of the U.S. Government, such as Commerce, State, Treasury and Transportation. Given the range of agencies involved, USTR has established a subcommittee of the Interagency Trade Policy Staff Committee to coordinate trade policy in this field.

Third, private sector participation in policy issues in services has been augmented by the establishment of two new advisory committees which will operate at different levels. The first, the Industry Sector Advisory Committee (ISAC), is composed of service industry representatives who will report through the Department of Commerce. The second, a Services Policy Advisory Committee, composed of chief executive officers and senior officials representing industry, labor, agriculture, and consumers, has been established by the U.S. Trade Representative. A third services committee, under the Labor Advisory Committee structure, existed throughout the Tokyo Round of the MTN and will continue to function. These groups will provide technical assistance and policy guidance on foreign commercial policies affecting U.S. service sectors. Since these committees will include key leaders of individual service sectors, labor, and consumer representatives, they could become key fora for the formation of a unified private sector view of these issues.

The U.S. Government has actively initiated conversations with individual service sectors with a view toward developing strategies for pursuing the commercial interests of our service sectors through negotiations. The initial focus of this activity has been to collect data on trade barriers faced by our service industries abroad. This initial barrier identification effort is being followed by the development of preliminary U.S. Government negotiating strategies on barriers to trade in services.

General Policy Issues. In addition to overseas impediments, the competitive position of U.S. service firms is affected by general policies formulated and followed by the U.S. Government. Policy issues cannot always be divided strictly into "services" problems and "goods" problems. These issues involve a number of areas, e.g. export financing, tax policy, trade policy, export licensing etc., and require coordination through the Trade Policy Committee mechanism among concerned Government agencies.

International Trade Administration

Trade Promotion and Assistance. Service industries that receive Commerce promotion assistance fall into two groups. 1) industries that export their services; and 2) industries that provide back-up support to U.S. exporters.

Apart from banking, insurance, transportation, and computer services, all of which require special treatment, only a limited number of service industries can expect to realize significant increases in their export outputs. Efforts to promote and assist these industries in the past were hampered by a number of constraints. Commerce found that it is far more difficult to promote the export of intangibles than to promote goods. In addition, many of Commerce's promotional services, such as ad campaigns, are not applicable to service industries.

Despite these constrairts, Commerce has begun to take a fresh look at its trade promotion programs, which traditionally have been tailored to tangible merchandise. This review is being carried out in cooperation with the U.S. Chamber of Commerce.

Certain Commerce programs are particularly applicable to service industries, for example:

- Major Projects Program: An important function of this program is to help U.S. service firms win major contracts for planning, engineering or construction of substantial foreign industrial systems projects.

- Worldwide Information and Trade System (WITS): This new computerized international marketing information system can provide valuable assistance to service industries. First, it can list U.S. back-up support services to U.S. exporters such as banks and freight forwarders. In addition, it can list services for export, such as consultants and architects.

- Multiplier Program: Commerce is in the process of reactivating this program in which service industries, designated as multipliers, cooperate with Commerce to provide information, assistance, and encouragement to companies interested or involved in exporting. One proposal calls for more specific program guidelines; a more activist role to be played by headquarters in Washington; improved monitoring of muliplier activities; and greater communication and coordination between Washington and the multipliers.

- Industry Specific Problems: Aside from its trade promotion assistance to service industries, Commerce and other agencies attempt to eliminate or mitigate foreign country barriers to their freedom to compete abroad. The frequency and complexity of these country problems vary widely because of the diversity of the service industries in size and mode of overseas operation. For example, banking and insurance firms are often barred from entry or expansion in many foreign countries, particularly in the developing world. Motion picture exporters face screentime quotas and discriminatory taxes on foreign films while computer service firms are concerned with the potentially adverse impact that national privacy laws will have on the free transborder flow of information.

- Country Specific Problems: Problems of service industries and individual firms are dealt with as they arise. Where appropriate, the assistance of the FCS is enlisted. In other cases, solutions may be sought under Section 301 of the Trade Act of 1974. In a related action, Commerce and USTR, in cooperation with the U.S. Chamber of Commerce, are surveying various service trade associations to obtain a current inventory of overseas service barriers and impediments which can be attacked on a bilateral or multilateral basis.

United States Travel Service

The objective of the United States Travel Service is to expand the United States' share of international travel receipts, i.e., all spending for goods and services by persons traveling abroad.

When purchased by foreign visitors, goods and services such as hotel accommodations, transportation, restaurant meals, sightseeing tours and souvenirs represent "invisible exports." They are sold within the national boundaries, but produce foreign exchange earnings.

U.S. international tourism and fare receipts rose to new levels in 1979, exceeding $10 billion for the first time, an 18 percent increase in current dollar terms. In terms of constant (1972) dollars, the increase was 9 percent, more than the annual average (7.8%).

Based on 1976 data, the largest portion of all expenditures by Mexican and overseas visitors (30.0%) is for food and lodging. Other principal expenditure categories are gifts, souvenirs and purchases (27.0%); entertainment (18.0%); secondary transportation (16.0%); and miscellaneous, including sightseeing and tips (9.0%).

Although U.S. international tourist arrival volume for 1979 rose 238,000 to 20.1, the United States' share of total international tourist arrivals dropped slightly in 1979, representing about 7.2 percent of arrivals worldwide from 7.6 percent in 1978.

The United States Travel Service's primary mission, under the International Travel Act, is to ". . . develop, plan and carry out a comprehensive program . . . to . . . stimulate . . . travel to the U.S. by residents of foreign countries . . ."

Below is a description of some of the agency's services to help the U.S travel industry compete in the international tourism market:

Market Development. The agency brings U.S. travel suppliers together with potential foreign buyers through travel trade shows, travel missions and on-site inspections of U.S. travel facilities, attractions and services. In addition, seed money and advice are provided to foreign tour operators/wholesalers to fund such items as the production and distribution of tour catalogs featuring U.S. travel offerings or training programs for retail travel agents. In 1979, travel trade participants in travel trade shows organized or co-sponsored by USTS totaled about 30,000. More than 60 travel missions from U.S. states or cities were assisted by USTS personnel who counseled mission advance teams; made protocol arrangements with foreign government officials; adapted, translated and disseminated publicity material; mailed invitations to the local travel trade; and prepared and conducted market briefings for mission members.

Convention Intelligence. The agency provides U.S cities with information on international associations permitted by their bylaws to meet outside the seat of their respective headquarters and which have not recently met in North America. Foreign association executives are taken on guided inspection tours of U.S. convention facilities. In 1979, U.S. cities using USTS sales leads obtained 33 international congresses.

Travel Trade Education. Information about services offered by U.S. travel suppliers, entry requirements, climatic conditions and U.S. travel opportunities is disseminated to top-producing retail trade agents in 19 foreign markets through seminars, inspection tours and newsletters. In addition, USTS personnel abroad make sales calls on principal retail travel outlets in their respective regions, alerting counter sales representatives to new U.S. travel options and providing other technical assistance. In 1979, USTS personnel abroad completed more than 14,190 sales calls and serviced nearly 111,000 inquiries from foreign retail travel agents.

Consumer Information. VISIT USA travel planning information and aids such as maps are given to individual potential visitors who wish to visit the United States but prefer not to use the services of a travel agent. Total consumer inquiries processed by Travel Service or contract personnel in 1979 was 354,055, 14.2 percent more than in the previous year.

Technical Assistance. Market research, arrival and expenditure data and advice on effective marketing tools and techniques are provided to U.S states, cities, and companies via seminars, conferences, newsletters, and direct mailing.

Regional offices of the United States Travel Service are maintained in Toronto, Mexico City, Tokyo, London, Frankfurt and Paris. Each office administers a region-wide program which encompasses its host country and selected markets of high potential. Travel development activities in the latter markets are carried out by U.S. Foreign Service personnel in cooperation with representatives of U.S. travel industry elements resident in the country and under the supervision of USTS Regional Directors.

THE INTERAGENCY COAL EXPORT TASK FORCE

Numerous studies have indicated that the U.S., with its proven coal reserves, can become a major exporter of steam coal. In addition to helping to offset the current annual oil import costs of nearly $100 billion, coal exports can help other nations reduce their oil use and thus further moderate world oil demand and reduce the upward pressure on oil prices.

The purpose of the Interagency Coal Export (ICE) Task Force is to develop a report for the President to:

- determine the means to substantially increase U.S. coal exports in an environmentally acceptable manner;
- identify the impediments to such increases;
- recommend appropriate Government (Federal, State, local) and private sector actions to achieve them.

The Task Force is chaired by the Deputy Secretary of the Department of Energy. Agency participation includes the Departments of Commerce, State, Transportation, Labor, the Army Corps of Engineers, and USTR among others. The ICE Task Force is composed of six working subgroups reporting to an executive secretariat. The six subgroups consist of: Supply and Demand, Marketing and Business Issues, International Cooperation, Environmental Issues, Inland Transportation and Ports, and Ocean Transportation.

The Task Force, which was formed in April, 1980, is expected to forward a report to the President in December, 1980.

EXPORT TRADING COMPANIES

Small and medium-sized companies represent a large untapped export potential. Some 100 companies account for roughly half of all U.S. exports of manufactured goods, and only about 30,000 of the nation's approximately 250,000 manufacturing companies now export at all. Yet research by the Department of Commerce suggests that as many as 20,000 additional companies manufacture products at a price and of a quality that would be attractive to foreign buyers. Almost all of these additional companies are small or medium-sized. Faced with a large and attractive domestic market, and concerned with the uncertainties in exporting, these companies have not undertaken to sell abroad. For these companies a full-service export intermediary would be of great advantage.

To fill this need, the Administration strongly supports legislation designed to facilitate and promote the formation of export trading companies (ETCs). These intermediaries could provide "one-stop" exporting services for U.S. manufacturers to analyze foreign markets, arrange for transportation and financing of exports, handle documentation, distribute the products abroad, and conduct after-sales follow-up in the foreign markets. Alternatively, export trading companies could buy and sell on their own account, thereby allowing small companies to sell locally to an ETC for distribution of their products around the world. Export trading companies could, in effect, relieve a U.S. company of all tasks associated with successful exporting except for the production of the product itself. Export trading companies would realize economies of scale beyond what individual companies could hope to achieve. ETCs should increase exports from all kinds of companies, but they will be of particular assistance to the small or medium-sized firm for which exporting would be prohibitively expensive.

Over the years, there have developed a variety of export intermediaries that assume, on behalf of client firms, varying portions of the export burden. An "export broker," for example, receives a fee for bringing together the U.S. seller and overseas buyer; such a firm does not take title to the goods and assumes no financial risk. An "export merchant," by contrast, buys and sells on its own account, seeking out needs in foreign markets and making purchases in the United States to meet those needs. The merchants generally handle fungible, openly traded products for which a brand name or manufacturer's identification is not important. Another type of intermediary is the "export

management company" (EMC), which acts as the export sales department for more than one manufacturer. EMCs may act as independent distributors, purchasing and reselling goods at an established price or profit margin, or as commission representatives taking no title and bearing no financial risk in the sale. Additionally, the Federal Government has made several attempts to encourage cooperative exporting through the use of "piggyback," "combination export managers," and "matchmaker" approaches. None of these approaches has had a sustained, broad-based success. Most have offered only limited services to manufacturers, who find that they can easily duplicate these services themselves once export markets are developed.

Traditional U.S. export intermediaries bear little resemblance to the trading companies of other countries. Many of our major trading partners -- including Japan, West Germany, France, and Hong Kong -- employ some form of sophisticated export trading entity to represent manufacturers abroad. These trading companies are large enough and sufficiently capitalized to provide a full range of export services. There are many reasons for the success of these companies. They have expert, worldwide marketing networks. Many have access to high-leverage financing and favorable insurance rates. Much of their operating revenue is untaxed.

Foreign ETC models, especially the Japanese model, cannot and should not be transferred in their entirety to the United States. We can, however, facilitate the formation of trading companies, consistent with our traditional reliance on the market system, to serve many of the same export functions. A number of bills now under consideration by Congress have just this purpose.

The Administration has worked closely with Congress to develop legislation that would remove some regulatory inhibitions on the creation of these companies. There are three important Administration-backed provisions in S.2718 and similar House bills.

The first would allow commercial banks to invest in ETCs. This would mark a limited departure from the traditional separation in the United States of banking and commercial activities. Many banks have the capital, the international expertise, or the relationships with domestic manufacturers that can contribute to successful ETCs. If allowed to participate directly, banks can play an important role in organizing and managing ETCs.

S.2718 contains a number of important limitations on bank ownership, all designed to ensure the safety and soundness of the parent banking organizations. Specifically, a bank organization would be authorized to invest no more than five percent of its consolidated capital and surplus (25% in the case of Edge Act Corporations) in one or more ETCs. A bank could invest up to $10 million in ETCs without prior regulatory approval if the ETC would not become the bank's subsidiary. Prior approval by the appropriate federal regulatory agency would be required if: 1) a bank planned to invest more than $10 million in an ETC; 2) the investment would result in an ETC being a subsidiary of the bank; or 3) if a group of banks would own more than 50 percent of the ETC.

The second important provision in S.2718 is its amendments to the Webb-Pomerene Act of 1918. The Webb-Pomerene Act has provided an exemption from the antitrust laws for agreements or acts taken in the course of export trade by an association entered into for the sole purpose of export trade. The Act applies only to the export of goods. It has been criticized by many segments of the business community as being too ambiguous to provide comfort against the risk of criminal prosecution or treble damage actions for violations of the antitrust laws. (Antitrust issues affecting exporting are discussed more fully in Chapter 9 of this report.)

The antitrust provision of S.2718 would provide a method for both traditional Webb-Pomerene associations and export trading companies to obtain an assurance of immunity from the antitrust laws for their export activities. It would also extend their immunity to the export of services, a sector that now represents 65 percent of our gross national product. The bill provides a certification procedure, under which Webb-Pomerene associations and export trading companies would apply to the Secretary of Commerce for certification that their proposed export activities will not expose them to antitrust liability. The Secretary, after consultation with the Justice Department and the Federal Trade Commission, can issue such a certificate if he has determined that the proposed activities will serve to promote exports and will not have substantial anti-competitive effects within the United States.

As with the banking provisions, the antitrust portion of S.2718 provides only circumscribed exceptions to the general regulatory scheme and establishes procedures to ensure against abuse. The Secretary may revoke this certificate whenever the certified entity ceases to conform to the statutory standards. Justice and the FTC are empowered independently to seek judicial voiding of the certificate. The antitrust immunity, however, cannot be removed for activities covered by the certificate during the period that the certificate was in effect. This feature gives export associations and trading companies the certainty they need.

The third Administration-backed provision of S.2718 would broaden available sources of financing for ETCs by providing for loans and guarantees from the Economic Development Administration, the Small Business Administration, and the Export-Import Bank. Specifically, EDA and SBA are directed to give special weight to export benefits when considering loans and guarantees to ETCs for initial investments and operating expenses. In addition, the Export-Import Bank is authorized and directed to establish for export trading companies a program of guarantees for commercial loans, secured by accounts receivable and inventory, where the private credit market is not providing adequate financing.

CHAPTER 6. FINANCIAL AND TAX INCENTIVES

EXPORT FINANCING

Definition of the Incentive

The United States Government, through the Export-Import Bank, agricultural credit programs, and U.S. bilateral foreign assistance, offers financing specifically directed at promoting a wide range of exports. To meet foreign export credit competition, this financing is often on terms more attractive than the private financial market would offer for similar export transactions.

The general goal of the U.S. Government's official export financing policy is to promote exports through means that supplement the private financial market. The following sections of the report detail efforts to promote non-military exports through official financing.

Export-Import Bank

Background. The Export-Import Bank was established in 1934 by an executive order and incorporated as an independent U.S. Government Agency under the Export-Import Bank Act of 1945. It assists in financing the sale of U.S. goods and services to overseas buyers. The Bank provides a variety of financing programs to help U.S. exporters, including direct credits, guarantees, and insurance. It is statutorily mandated to support and encourage but not compete with private capital in the financing of U.S. exports.

Eximbank's program levels and especially its loan authorization ceilings are approved annually by Congress. The Bank is required by law to take into account its average cost of money when setting its interest rates. The 1978 amendments to the Export-Import Bank Act also emphasized that the Bank should provide export financing at rates and terms competitive with those offered by foreign official export credit agencies. To meet foreign competition, and because domestic private interest rates are high, Eximbank loans are offered at rates below the present cost of government borrowing. The subject of interest subsidies is a current matter of international negotiation.

In FY 79, total Eximbank authorizations increased 29 percent to $9.49 billion. The export value supported under all programs increased 29 percent to a record level of $13.6 billion. For FY 80 the Administration sought still greater authority with respect to Eximbank direct lending, which Congress has not yet approved at the time of this report. Consequently, Eximbank is forced to operate at FY 79 levels. The sections below outline the major Eximbank programs.

The direct credit program -- Under this program Eximbank finances U.S. exports for major foreign projects warranting repayment terms of five years or longer. Eximbank prefers that private credit be utilized to the maximum

extent possible. However, private institutions may be unable or unwilling to provide all the credit required, the repayment term of U.S. commercial bank lending may be too short, or the interest rate under floating rate practices may be too high or too variable relative to government-supported interest rates offered by foreign suppliers. In such circumstances, Eximbank supplements the market with its own long-term loans at fixed and competitive interest rates. The percentage of the export contract supported by an Eximbank loan is referred to as "cover."

Until recently, Eximbank has been increasing its level of activity and competitiveness. Levels of direct credit activity in previous years have been, in billions of dollars:

Table 1

Direct Credit Authorizations
($ billions)

1970	$1.6	1972	$2.1	1974	$3.8	1976	$2.1	1978	$2.9
1971	$1.7	1973	$2.3	1975	$2.5	1977	$0.7	1979	$3.7

(Source: Eximbank Annual Reports)

In 1980 the requested loan level is $4.1 billion and in 1981 the requested loan level is $4.4 billion. (In addition, authority to issue $1 billion in supplementary guarantees is requested.) In the face of foreign credit competition Eximbank reduced its interest rate to an average 8.3 percent. Average cover was increased from 40 percent to 60 percent overall and 70 percent on non-aircraft cases. In recent months, however, Eximbank has been forced to increase its interest rate and decrease the cover on its direct credit program due to delayed enactment of its budget request and a high volume of credit applications stemming from tight conditions in the financial markets.

Private Export Funding Corporation -- In addition to the above programs, Eximbank unconditionally guarantees the fixed rate, medium- to long-term loans offered by the Private Export Funding Corporation (PEFCO). PEFCO is owned by private U.S. commercial banks and corporations, but its loans are near substitutes -- despite higher interest rates -- for Eximbank loans because of the unconditional Eximbank guarantee. During 1979, PEFCO offered a total of $475 million in new loans, triple the 1978 level of $159 million.

Financial guarantee programs -- Eximbank also provides financial guarantees which give repayment assurance to private financial institutions that extend loans for major export transactions. In FY 79, Eximbank authorized $480 million in financial guarantees, mostly in support of PEFCO loans. This represents an increase of 109 percent over the FY 78 level of $230 million in financial guarantee programs. Total financial guarantee exposure as of April 30, 1980, was $4.2 billion.

Foreign Credit Insurance Association -- The Foreign Credit Insurance Association (FCIA) is an association of some 50 of the nation's leading insurance companies. It works in cooperation with Eximbank to assist

American exporters by insuring their export receivables against commercial and political loss, thus facilitating the offer of credit terms and the financing of the foreign receivables. FCIA offers a variety of short- and medium-term policies. It underwrites the commercial credit risks, including buyer's insolvency or protracted default, while Eximbank covers all political risks such as war, revolution, expropriation and currrency inconvertibility. Eximbank also provides reinsurance on certain excess commercial risks to the insurance industry. In 1979, Eximbank authorized 2,315 FCIA insurance transactions, a 29.2 percent increase over 1978's 1,791, totaling $4.1 billion, an all time high. These supported $5.9 billion in U.S. exports, an increase of more than $1 billion over 1978.

Short-term programs -- Eximbank provides support for short-term transactions for up to 180 days exclusively through FCIA policies. These include: 1) the Short-term Policy, which normally covers up to 95 percent of commercial credit risks and 100 percent of political risks; 2) the Master Policy, which insures all or a reasonable spread of an exporter's eligible sales, both short- and medium-term; and 3) a special FCIA policy to support the export of services.

Medium-term programs -- Eximbank has three major medium-term programs that support sales of capital goods and equipment and other products and services requiring repayment terms of up to five years: 1) insurance coverage; 2) guarantees covering medium-term loans by U.S. banks, and 3) discount loans to U.S. banks. Medium-term insurance includes the FCIA Medium-term Policy, Short- and Medium-term Combination Policy, Master Policy and specialized coverage such as Pre-shipment Coverage and Switch Cover for foreign distributors.

Under the Commercial Bank Guarantee Program, Eximbank will issue guarantees to commercial banks prepared to finance a medium-term export sale, covering such risks as buyer's insolvency or protracted default and political risk such as war, insurrection, expropriation and currency inconvertibility. Eligible institutions include commercial banks, Edge Act Corporations, and U.S. branches and agencies of foreign banks. In FY 79, Eximbank authorized 573 Bank Guarantees, totaling $399.2 million. This represented a 15 percent increase over the $346.8 million authorized in 1978.

Eximbank's Discount Loan program enables U.S. commercial banks to extend fixed-rate medium-term export credits that they would otherwise be unable to undertake. In most cases, Eximbank extends a loan against a commercial bank's purchase of a foreign obligation for up to 100 percent of the financed portion. Eximbank will also purchase the foreign obligation from the U.S. bank with full recourse. The usual interest charged by Eximbank is one percent below the yield to a commercial bank on its export credit. In 1979-80, the Discount Loan program was tightened due to unexpectedly high loan demand reflecting high interest rates in the private sector. During 1979, Eximbank increased its authorized discount loan commitments by 31 percent from $497.3 million to $650 million.

Small business exports -- Eximbank is cognizant of the needs of small exporters and has taken a number of steps to meet their needs. The short-term export credit insurance policy for small business exporters was

widely used in 1979. The policy provides increased protection against buyer bankruptcy and other commercial default risks at no extra premium. Similar preferences for small exporters also are available for single-transaction medium-term guarantees and insurance. At year-end 1979, 106 small business insurance policies were in effect with an export value of $25.7 million. Furthermore, Eximbank recently liberalized its eligibility criteria for the use of these programs by small and medium-sized enterprises. Eximbank also participates, with Commerce, OPIC, and SBA, in seminars around the country directed at informing small businesses in exporting. Eximbank has installed a toll-free "hotline" to provide general information about export financing and specific information about Eximbank programs. It should be further noted that SBA, with Eximbank help, launched a 6-month pilot program in March 1980 to guarantee short-term lines of credit from commercial banks to finance specific export contracts of small businesses. If successful, the program will be extended.

The Context of Official Export Financing. The great bulk of financing for U.S. exports is provided by private institutions. Eximbank provides direct financing for only two to three percent of U.S. exports. In 1977, the ratio of long term direct financing to total exports was below that of our major export competitors. In 1978, this ratio was about the same as that provided by these countries.

Table 2

Ratio of Long-Term Export Credits to Total Exports

	1977	1978
Japan	6.3%	2.2%
United Kingdom	3.6%	1.6%
France	9.1%	3.9%
Germany	2.8%	1.8%
United States	2.5%	2.7%

(Source. Report to the U.S. Congress on Export Credit Competition and the Export-Import Bank of the United States, January 1980; IMF International Financial Statistics, June 1979)

Charges are often made that Eximbank has been less competitive than its foreign counterparts in supporting U.S. exporters. This view does not appear to be completely correct. Of 143 Eximbank-supported credit offers in FY 79, Eximbank studies show that only eight were lost because Eximbank offered less competitive financing than other official export credit agencies. Seven of these eight were lost because foreign governments provided aid-type financing, which Eximbank can meet only on a selective basis.

Additionally of Eximbank lending -- The relatively insignificant number of sales lost because of uncompetitive Eximbank financing may suggest to some that the Bank is perhaps doing too much trade financing. To see if that was the case, Treasury staff analyzed FY 78 Eximbank loans for the probability of

"additionality". They defined additionality as the extent to which Eximbank financing was essential to offset: 1) inadequate private financing; or 2) foreign official financing, to assure that the U.S. export would take place.

The study concluded that, for FY 78, exports supported by Eximbank direct credits had a probability of additionality somewhat greater than 70 percent. This argues that Eximbank is substantially fulfilling its legislative mandates.

Eximbank budget -- One feature distinguishing Eximbank from several major foreign competitors is the latters relative ease of obtaining government resources. Eximbank lending must conform, of course, to annual dollar limits set in the normal budget process. In FY 80, the demand for Eximbank loans far exceeded the funds available, leading to sharp program restraints and the deferral of some loan approvals to the following fiscal year. As Eximbank's budget authority is part of the Foreign Assistance Appropriations Act which frequently experiences delays in Congressional enactment, the level of resources available to the Bank also may be uncertain well into the fiscal year. It should be pointed out that all Federal Government credit programs, including Eximbank, will be subject to legislative ceilings beginning in 1981 as part of the Administration's effort to limit Federal intervention in the credit markets.

By contrast, foreign export credit agencies appear to encounter fewer resource problems. Some governments subsidize the interest rate on private loans to finance exports, thereby presenting apparent lower initial budgetary costs. Other governments rediscount export loans readily with off-budget central bank facilitates, thus avoiding budget charges. A 1980 Eximbank study found a generally higher commitment to export credit by major foreign competitors than by Eximbank, as measured by availabilty of financing to exporters, budgetary constraints, and annual appropriations.

Foreign official export credit competition -- Despite the relative success of Eximbank's direct credit program, pressure on U.S. exports from foreign official export credit agencies has continued. By and large this pressure is the result of interest rate subsidies offered by foreign countries. An OECD study suggested that these subsidies cost OECD member governments $2 billion in 1978. The rise in interest rates in most financial markets since 1978 has meant that these subsidies increased substantially since then. Interest rate subsidies on official export credits are currently estimated at around $5 billion. The size of these subsidies has made it imperative that the international negotiations to reduce and ultimately eliminate them succeed.

Steps to Strengthen Export Finance Incentives--The Administration plans to improve the financing support it provides to U.S. exporters by seeking Congressional approval of increased budget resources for Eximbank while at the same time negotiating with our major trading partners to render export financing a neutral factor in international trade.

International negotiations -- The Administration has pressed hard for meaningful international negotiations and in the past 3 years alone has raised the export credit issue on 31 separate occasions in bilateral and multilateral fora. Many of their talks have centered on the international

export credit Arrangement, an informal understanding among major industrialized nations establishing inter alia minimum interest rates and maximum repayment terms on export credits.

Last fall, other countries showed a renewed willingness to achieve a new measure of discipline in this area. The most important result so far is the Wallen Report, named after its principal author. The report proposed to correct two basic problems with the existing Arrangement. (1) the minimum interest rates, which have remained unchanged since July 1, 1976; (2) and the inflexibility of the Arrrangement minima with respect to currencies. Since market rates differ sharply from country to country (as well as over time, for all countries), pronounced anomalies can thus appear among countries, with some countries allowed to subsidize more than others.

The framework proposed in the Wallen Report involves a differentiated rate system for export credits, which would rectify both problems. First, it would synchronize minimum interest rates with actual rates in the respective capital markets. Second, it would vary the minimum interest rates on official export credits by currency.

Overall, the proposed new framework would not only relate the minimum interest rates to market rates of interest in the various major currencies, but also it would change these rates from time to time as capital market rates change. The idea would be to adjust the minimum interest rates, periodically and automatically, using long-term government bond yields in the various countries as benchmarks.

The U.S. Government firmly supports a differentiated rate system. Such a system would place all official export credit offers on a much more equitable basis. It would greatly reduce subsidies and the dangers of an export credit war.

An interim measure -- In mid-May of this year, the participants in the Arrangement, some 22 industrial nations, met in Paris to consider the Wallen proposals. At the meeting, the European Economic Community announced that it was not yet ready to approve a differentiated rate system along the lines proposed in the Wallen Report. The Europeans did offer, without prejudice to further consideration of the Wallen proposals, to raise the present Arrangement minimum interest rates by 1/4 percent for loans to poor countries and 3/4 percent for the intermediate and rich countries. This took effect July 1st and is a step in the right direction. It will reduce the subsidy by participants on export credits this year by as much as several hundred million dollars.

By itself, the EEC offer was clearly inadequate. But it was acceptable as an interim measure. At the Paris meeting, it was agreed that December 1, 1980, would be the deadline for reaching agreements on a revision of the Arrangement. The U.S. Government followed up on the start made at the May meeting in Paris by urging the Venice Summit to support improvements in the Arrangement. The Summit participants agreed with much of the United States' proposal. The Summit Communique stated that "we shall work together . . . to strengthen the International Arrangement on Export Credits . . . by 1 December 1980 . . . to bring the terms closer to market conditions."

Increased budget resources -- To match foreign credit competition more aggressively and as a relief valve for Eximbank, the Administration is seeking immediate Congressional approval for an increase in Eximbank's Program Activity. Part of the increase would support up to $350 million in direct credits, while the remainder would allow the Bank to provide more financial guarantees for exports. The resulting program would total $5.1 billion, as in the Administration's original proposal.

Private Sector Views. The extensive written comments from the public in response to the Federal Register notice of April 29, 1980, included many suggestions and criticisms on Eximbank. Of all the specific incentive issues, this was most frequently cited, with about 30 percent of the public's response making some mention of it. A survey also was made of selected Foreign Service posts to obtain their perspective on the local market. Export financing was prominently mentioned in these replies as well, although to a lesser degree than certain other issues. Finally, a conference was held of knowledgeable private sector individuals in the export financing field who made a number of specific recommendations.

Most public respondents commenting on export financing applauded Eximbank's efforts in the past two years to support exports and match foreign official export credit competition. However, an overwhelming majority of such respondents indicated that these achievements did not go far enough or might prove impermanent. They cited a recurrent lack of adequate and reliable resources which has made Eximbank less competitive than its foreign counterparts in terms of interest rate, maturity and downpayment requirements. A lesser but still substantial number of respondents complained that Eximbank programs are geared to large companies, leaving small and medium-sized exporters without access to official export financing facilities, while others found Eximbank's policies and programs too rigid in terms of the markets the Bank served. The latter urged more medium-term financing as well as more flexibility to adapt to the changing needs of all U.S. exporters. Some complaints dealt with the use of Eximbank financing to achieve foreign policy objectives, time delays experienced in the application process, and the lack of financing for foreign content and local costs.

Many of these suggestions are receiving closer attention within the Executive Branch as a result of the National Export Policy and the Trade Reorganization. It should be noted that some of these suggestions conflict with statutory mandates, international understandings between the U.S. Government and other countries, or priority Administration objectives in other areas. However, the pressing problem of Eximbank resources is receiving urgent attention within the Administration. Among the principal private sector suggestions were the following:

Federal budget resources for Eximbank -- Several suggestions offered by the public dealt with their concern that. 1) Eximbank funding was subject to unusual delays in the Congressional budget process, and 2) budget resources currently provided for export lending were not adequate. To increase sales abroad, many exporters felt that a stable and adequate source of competitive funding for Eximbank was a necessity.

To deal specifically with the problem of delayed buget approval, it was urged that Eximbank be removed from the section in the Federal Budget dealing with foreign aid. Exporters argued that foreign aid programs traditionally have difficulty getting Congressional approval, with consequent delays in the approval of the Eximbank budget. They suggested moving Eximbank from line 150 (Foreign Affairs) of the Federal Budget to some other line, or shifting it from the Foreign Assistance Appropriations Act to another appropriation act.

The suggestion addresses the problem of timely enactment of Eximbank commitment authority, which was seriously delayed in FY 80. It does not address, however, the issue of the appropriate level of Eximbank resources, particularly vis-a-vis other program claims for the Federal budget dollar. Since Eximbank usually has received from Congress its full budget request in years prior to FY 80, the consequences of shifting Eximbank would have to be carefully considered.

Another suggestion was that Eximbank operate on a multi-year budget rather than a single year budget. The rationale for multi-year budgeting is that it would provide Eximbank with a more precise forecast of the resources available to it. There is some question as to whether this proposal would conflict with the required flexibility of the Executive Branch and Congress in setting annual budget limits in light of changing fiscal and monetary conditions. Moreover, the demand for Eximbank credits fluctuates according to financial market conditions. Multi-year budgeting would not necessarily assure that the required resources for a given year were available.

Several private sector suggestions concerned the related problem of the adequacy of budget resources currently provided for export lending. These suggestions dealt with the possibilities of a more automatic rediscount facility, privatization of the Bank, removing Eximbank from the totals of the Federal budget, and an increase in the capital of the Bank. While such suggestions are directed at assuring the long-term stability, adequacy, and competitiveness of Eximbank funds, they raise fundamental fiscal and budgetary questions of deep concern to Administration and Congressional policymakers.

A more automatic rediscount facility would emulate the practice of several foreign agencies whereby export obligations meeting certain requirements are eligible for central bank rediscounting on a preferential basis vis-a-vis other obligations. Such practices tend to enlarge the supply of credit for exports or reduce interest costs from what they otherwise might be; automatic rediscounting provides a degree of certainty of financing to the exporter. The Federal Reserve, in exercising its monetary policy responsibilities, does not accord special preference to specific economic sectors. The Federal Reserve does provide, however, in its capacity as a lender of last resort, its member banks with loans at the published discount rate for a limited period of time against acceptable collateral.

It also has been suggested that Eximbank might be transformed into a private or quasi-private entity outside of the U.S. budget, much as the Federal National Mortgage Association was transformed a number of years ago. Another

proposal was that the U.S. Government might subscribe, through appropriations, to additional capital stock of the Bank. Both proposals have complex implications and warrant careful examination.

Offering foreign currency credits -- A second suggestion was that Eximbank should offer direct credits denominated in foreign currencies, in addition to its present policy of guaranteeing financing in foreign currencies. This suggestion is under review. At issue is whether additional U.S. exports would be created by offering financing in foreign currencies. The attractiveness of U.S. export credits would also depend on the interest rate charged for these credits and the degree to which the exchange rate risk is borne by Eximbank, the U.S. exporter or the foreign importer. This issue will become more important should major trading nations modify the International Arrangement on Export Credits to adopt a differential rate system. That system contemplates allowing all countries to offer credits in any currency at the minimum allowable interest rate for that currency.

Attracting institutional investors toward financing exports -- A third suggestion was that Eximbank should use its guarantee authority to attract institutional investors -- such as U.S. insurance companies and pension funds -- into offering long-term, fixed interest rate financing for U.S. exports. Eximbank, in fact, has already begun to use its guarantee authority for just this purpose.

Fixed interest rate support program -- A fourth suggestion was that Eximbank should offer a fixed interest rate support program (FIRSP), which would involve Eximbank subsidy payments to private banks of the spread between their normal interest rates and a rate predetermined to be internationally competitive. This would enable Eximbank to show lower initial budget charges and would align Eximbank programs more closely with some of its foreign counterparts. Such a program, however, would imply acceptance of unpredictable and uncontrollable future budget costs as interest rates change, as well as the possibility that government subsidies in export finance could become the rule rather than the exception.

More medium-term financing -- A fifth suggestion was that Eximbank offer cheaper and more fixed-rate financing for medium-term export credits. While the Bank acknowledges that its programs are less competitive than those of foreign official export credit agencies in support of medium-term exports, it may be restrained by its statutory mandate to supplement, and not compete with, private financing. In normal times, private medium-term financing is available to exporters. However, the problem arises when interest rates soar and U.S. exporters are unable to find medium-term financing on terms similar to those offered their foreign competitors. For Eximbank to become competitive in the medium-term market in such circumstances would entail credit subsidies and would require increases in funding of $5-10 billion, assuming no cutbacks in the long-term credit programs. The Bank is currently reviewing what could be done to make its programs more competitive while trying to negotiate with its foreign counterparts an end to export credit subsidies.

Agricultural Credit Progams

Programs. USDA maintains important programs to assist in the financing of U.S. agricultural exports. These include the Concessional Credit programs under P.L.480 and the Commercial Credit programs of the Commodity Credit Corporation.

Concessional credits -- Under Title I of the Agricultural Trade and Development Act of 1954 (P.L. 480), the United States finances the sale of commodities at concessional rates. The actual sales are made by private U.S. suppliers to foreign government agencies or private trade entities. The commodities are then usually resold in the recipient countries and the local currency proceeds are used by the recipient government for purposes specified in an agreement between the receiving country and the United States. Repayment to the United States by the recipient governments are made in subsequent years, as specified in the sales agreement, usually over a period of 20 or more years. Title I originally permitted recipient countries to pay for concessional sales with foreign currencies; however, no new sales for foreign currencies have been made since 1971. Sales for convertible local currency credit were instituted as a transition to sales for dollar credit. These two methods for repayment of U.S. dollars on a deferred basis are subject to minimun and maximum repayment terms, as specified by Congress. Repayment terms are longer under convertible local currency credit.

These types of concessional sales programs often facilitate the development of commercial markets. Since the 1960's almost all major P.L. 480 recipients have substantially increased their commercial purchases of U.S. farm products. Many former recipients of P.L. 480 Title I credits, including Japan, Spain, Taiwan, Colombia. Ecuador, and Brazil, are now good commercial customers for U.S. agricultural products. India, once a recipient of P.L. 480 Title I, was the largest cash customer of U.S. wheat in 1975.

Commercial credits -- USDA's commercial export financing and guarantee programs are designed to expand and maintain our markets for U.S. farm exports. These programs differ from the P.L. 480 credits, most notably in that commercial credit terms are offered. When funds are authorized to be lent, the interest rate charged usually is above CCC's current borrowing costs from the Treasury.

Currently, three commercial financial programs are operative: 1) Commodity Credit Corporation (CCC) Short-term Export Credit Sales Program (GSM-5); 2) CCC Intermediate Credit Export Sales Program for Breeding Animals, (GSM-201); and 3) CCC Non-Commercial Risk Assurance Program (GSM-101). The last two programs are relatively new, and the bulk of commercial financing has been under the CCC Short-term Credit Program. For FY 81, however, budget authorization has been requested only for the Assurance Program. It is expected that coverage will be expanded to include all risks, and the new program is likely to be known as the Export Credit Guarantee Program (GSM-102).

Purchases must be made from a U.S. firm, and only U.S. farm commodities are financed. Currently about 25 commodities are eligible. Each year sales to 25-30 overseas markets are financed by the Short-term Credit Program.

The amount of commercial financing provided changes from year to year but has been increasing. During the last two years it reached $1.6 and $1.5 billion. In the current year authority is provided for $800 million of direct credits, plus $1 billion of guarantees. For FY 81, authority for $2 billion is anticipated, only for guarantees.

Under the CCC Short-term Credit (GSM-5) and the Intermediate Credit (GSM-201) Programs, funds are provided by the U.S. Government. U.S. sellers register their sales with CCC, and buyers provide a commercial bank letter of credit (L/C) in favor of CCC. When the sellers ship the commodities, they provide CCC with export documentation, sign over the account receivable, and receive a check from CCC for the U.S. port value. When payment is due, CCC draws on the L/C for the amount of the principal plus accrued interest, and the account is closed. The only real difference between these two programs is that CCC credit financing may be for a period of 6 months up to 3 years, while financing for breeding cattle may be provided for up to 10 years.

The objectives of the Assurance or GSM-101 Program are the same as for the Short-term Credit Program. However, under the Assurance Program, actual funds are provided by U.S. banks, and CCC guarantees repayment in the event of default by the foreign bank for noncommercial reasons. In such cases, CCC would reimburse the U.S. bank and would collect from the foreign bank which provided the original guarantee, or possibly from the foreign government. Actual repayment terms and interest rates are fixed by the U.S. bank providing the funds after negotiation with the foreign buyer. The U.S. guarantee, however, is limited to 3 years.

There is one other difference between the programs. Under the Assurance Program, the U.S. exporter making the sale sends USDA a check for the guarantee premium. This amounts to about one-third of one percent per annum of the unpaid principal, depending upon repayment terms. Costs of financing under the two programs is about the same. Under CCC Credit, there is no guarantee premium, but the buyer has to pay the cost of having a foreign bank L/C advised and confirmed in part by a U.S. bank. This is not required under the Assurance Program. The guarantee premium under the upcoming all-risk Guarantee Program may be slightly higher than under the Assurance Program, since both commercial and noncommercial risk will be covered.

CCC Credit has contributed materially to the expansion of U.S. exports since its inception in 1956. In its early years it was used to re-establish Japan and Western Europe as prime cash markets, which they are today. Later, it helped make the transition from concessional P.L. 480 purchases to commercial purchases in markets like Brazil and Ecuador. Throughout the period it has been used to meet competition from suppliers like Canada, Australia, and France which also provide credit terms. In recent years it has successfully opened several new markets and firmly established the U.S. as a major supplier. The Assurance Program has been popularly received in light of the current volatility of interest rates.

The current CCC program emphasis is on expanding markets in the developing world. Success of this endeavor depends in large part on the availability of credit. Under the Agricultural Trade Act of 1978, Congress provided

authorization for a CCC intermediate credit program for marketing facilities. The program would provide financing for 85 percent of the value of selected U.S. agricultural commodity exports, on three to ten-year terms at commercial rates of interest. Local currency proceeds from the sale of the commodity would then be used by the importing country to finance construction of facilities to improve marketing, processing, distributing, storing or handling of agricultural commodities. There are no funds in the FY 1981 budget to implement this program. The issue will be reviewed during the FY 1982 budget process.

U.S. Foreign Assistance Programs

It is a policy of the United States to promote self-reliant growth with equity among the developing nations. A number of complementary programs are employed to achieve this objective. While the primary purpose of U.S. foreign assistance programs is to promote growth with equity, these programs also finance substantial amounts of U.S. exports. Besides the U.S. Government programs discussed below, note should be taken of the multilateral development banks, which receive contributions from the U.S. and which foster the growth of key U.S. export markets and finance foreign procurement of U.S. goods and services.

The International Development Cooperation Agency (IDCA) is responsible for formulating sound development policies, providing budgetary guidance, and coordinating of the various agencies through which the United States provides development assistance. Within IDCA are the Agency for International Development, the U.S. bilateral assistance program; the Overseas Private Investment Corporation, which primarily provides political risk insurance to U.S. businesses investing in developing countries; and the Trade and Development Program which funds feasibility studies for projects which can lead to contracts for U.S. businesses and government agencies. IDCA has policy and budget responsibility for U.S. participation in U.N. development agencies. It shares with Treasury responsiblity for our participation in the multilateral development banks and with Agriculture the responsibility for directing the U.S. Food for Peace Program (P.L 480).

Agency for International Development. Originally established in 1961 as the agency responsible for the administration of the U.S. bilateral development program, the Agency for International Development (AID) became part of the newly-created International Development Cooperation Agency in 1979. AID provides grants and concessional credits (low interest rates and forty year maturities) to developing countries in need of such assistance. According to data published by the Census Bureau, $769 million of U.S. merchandise exports in FY 79 were attributable to aid loans and grants under the Foreign Assistance Act. These data may not record as much as several hundred million dollars of added U.S. costs associated with exports. In addition, AID's contracts with U.S. firms and institutions to provide technical services for projects abroad augment the merchandise export total.

AID's assistance is directed to the poor people of recipient countries and emphasizes the participation of the poor in benefits of economic development. This development strategy means that AID's efforts are largely

directed to basic human needs and are in such sectors as agriculture, education, population, and health and nutrition. These sectors mainly require technical assistance and local currency expenditures.

During the coming years AID intends to continue the policy of shifting resources into the low-income countries. Programs for Asia and Africa, which have the largest numbers of poor countries and poor people, will increase. In Latin America, the poorer countries are emphasized. This policy reflects a recognition that concessional assistance resources are scarce and that low-income countries have limited access to private borrowing, face severe constraints on their ability to service external debt, and are, therefore, heavily dependent on official concessional flows for their development. AID lending to low-income countries will continue to have priority over assistance to middle-income countries.

AID's total functional and other [illegible] amounted to $978 million in FY 79. Agriculture, rural development and [illegible] programs will continue to account for more than half of AID [illegible] development assistance. Population planning program will also grow [illegible] in FY 81, maintaining a 15 percent share of the program budget. AID also plans to increase programs in energy, especially renewable energy [illegible] support for private voluntary organizations and, through the Housing Guaranty Program, to support housing for poor people.

Economic Support Fund -- The Economic Support Fund (ESF) is allocated by the Department of State and administered by AID under policy guidance from IDCA. It provides economic assistance to countries where U.S. foreign policy interests can be served by bolstering economies affected by political or economic crises. The majority of ESF outlays of $1.7 billion in FY 79 [illegible] earmarked for the Middle East and is designed to support diplomatic initiatives to achieve peace and stability in that area. In addressing development concerns ESF can finance balance-of-payments assistance, cash transfers, commodity import programs, and large infrastructure projects. AID applies procurement criteria similar to those in force for its other programs where possible. In the case of Israel, however, the ESF is cash transfer. Procurement under the remainder of ESF is tied to the United States.

Trade and Development Program. The Trade and Development Program (TDP) was established on July 1, 1980, to promote economic development in Third World countries and the sale of U.S. goods and services to those countries. TDP, the successor to the Reimbursable Development Program of AID, has substantial day-to-day autonomy while receiving policy and budget guidance from IDCA. TDP supports feasibility studies for projects that can be financed by developing countries and undertaken by U.S. private industry or government agencies. TDP expects to spend $4.0 million on such activities in FY 81.

TDP operates under the authority of Sections 607(a) and 661 of the Foreign Assistance Act. Under Section 607(a), TDP serves as the coordinating and authorizing agency for the provision of government-to-government technical assistance on a reimbursable basis, involving many U.S. Government agencies such as the Army Corps of Engineers and the Water and Power Resources Service of the Department of Interior.

Under Section 661 of the Act, TDP finances planning services leading to reimbursable programs with U.S. agencies or direct host government contracts with U.S. private firms for project implementation. TDP planning services include: surveys to identify potential projects, conceptual design and pre-feasibility studies, feasibility studies, and design engineering.

TDP is involved in some 40 countries around the world. Examples of projects include the following:

- Thailand: TDP was able to attract $97 million in contracts for U.S. engineering firms through feasibility studies and technical orientation assistance for a planned natural gas pipeline.

- Nigeria: Through TDP thousands of Nigerian students receive technical training in U.S. colleges and institutions. The cumulative cost to the Nigerian Government has been approximately $40 million to date.

- Peru: TDP is financing a study of the renovation of four ports through which Peru's minerals are exported. Such renovations will lower transport costs and accelarate port operations. Substantial exports of U.S. port and materials handling equipment will be generated.

Establishment of the Trade and Development program will help U.S. industry compete more effectively with other industrialized countries for major development projects in the Third World. The foreign assistance programs of France, Germany, Japan, and other OECD nations serve as export generators as well as development tools. For example, the European Community has, since 1976, budgeted about $70 million annually to finance pre-feasibility and feasibility studies, and design engineering performed by firms located in the Community. Other examples: in FY 79, ending March 31, 1980, Japan budgeted $56.7 million for grants for feasibility studies; in 1978, the Federal Republic of Germany committed $60 million, and France disbursed $20.5 million in grants for feasibility studies.

Overseas Private Investment Corporation. The Overseas Private Investment Corporation (OPIC) is an independent, self-sustaining government corporation that operates as a component of the International Development Cooperation Agency. Its purpose is to mobilize and facilitate the participation of U.S. private capital and skills in the economic and social development of friendly developing countries. In recent years, developing countries have become the fastest-growing export market for the United States and now receive over one-third of U.S. exports.

OPIC began operations in January 1971 under the authorization of the Foreign Assistance Act, as amended in 1969. Its present authority, which extends until September 30, 1981, is the OPIC Amendments Act of 1978. Under this authority, OPIC offers eligible U.S. investors in developing countries political risk coverage, loans and loan guarantees, and preinvestment assistance.

The investments receiving OPIC's selective support have had a positive effect on U.S. exports. OPIC estimates that the projects it has supported over the past five years will generate an estimated $4.2 billion in direct U.S. exports during the first five years after project start-up.

Programs — OPIC offers U.S. investors in over 90 developing countries coverage against the political risks of expropriation, inconvertibility of currency, and loss arising from war, revolution, and insurrection. This insurance is available for conventional equity and debt, and for arrangements such as licensing and service contracts. Bilateral agreements between OPIC and host governments form the basis for providing these facilities and subrogation of rights should a claim be paid. In its finance program, OPIC makes direct loans and guarantees loans against both commercial and political risk. OPIC loans are available to help finance projects that significantly involve U.S. small business or cooperatives.

OPIC also offers pre-investment assistance, such as partial feasibility funding, investment brokering between U.S. investors and potential host countries, and sponsorship of investment missions to developing countries OPIC maintains special sector programs for mineral and energy investment; food production, processing, and distribution; and U.S. small businesses and cooperatives to facilitate their entry into international markets. Finally, OPIC recently implemented an insurance program for bids, advance payments, and performance bonds related to construction projects.

Programs Related to Export Promotion — While the overall impact of outward direct investment by U.S. firms on U.S. exports has been the object of controversy, OPIC operates its programs in a selective manner refusing any support to a project which would have an adverse impact on the United States. OPIC analyzes the potential competitive impact of each foreign project it supports on the level of U.S exports and domestic U.S. employment. Consequently, the foreign investment projects selectively encouraged by OPIC generally result in U.S. export benefits, primarily as a result of purchases of U.S. machinery and equipment to construct the facilities and continuing purchases of U.S. raw materials and farm products, semi-finished goods, and spare parts required by these projects. Some OPIC projects are specifically designed to facilitate increased levels of U.S exports, including bulk transshipment facilities, flour mills, foreign construction contracts, and distributorships for U.S. made equipment. In the past two years, OPIC has adopted programs specifically geared to increased export development. These programs include:

- Bid, performance, and advance payment guarantees: OPIC offers to U.S. engineering and construction contractors insurance for irrevocable standby letters of credit which are required by many countries as bid, performance, and advance payment guarantees. OPIC insures U.S. contractors against losses caused by arbitrary drawings and thus enables U.S. engineering and construction companies to meet third-country competition in overseas markets. Engineering and construction projects often are an important source of U.S. exports, because American designs and specifications and the use of U.S. construction companies usually result in procurement of U.S. products.

- Bond guarantees for U.S. exporters. OPIC expanded the above program to extend insurance to non-service contractors and suppliers who are required to post unconditional guarantees for their exports. This insurance removes a competitive disadvantage which U.S. exporters faced against other-country exporters whose governments provide protection from loss due to arbitrary drawings against these bonds.

- Foreign distributorships for U.S.-made equipment U.S. machinery and heavy equipment exporters are frequently at a competitive disadvantage in foreign markets because their overseas distributorships lack after-the-sale repair, maintenance, and spare parts facilities or adequate financing for the retail purchase or lease of the equipment or machinery. OPIC has begun to promote its insurance and financing programs to support the installation of repair and service facilities in these distributorships and to permit them to provide improved customer financing.

Exception for significant U.S. trade benefits -- To emphasize OPIC's developmental role, current legislation restricts, but does not preclude, OPIC programs in upper-income developing countries, defined as those with GNP per capita of $1000 in 1975 dollars (or approximately $1400 in 1980 dollars) or more. The $1000 guideline, as implemented by OPIC's Board of Directors, has exceptions, including recently adopted ones permitting OPIC support for a few projects which provide significant net U.S. trade benefits and for letter of credit guarantees.

The Overseas Private Investment Corporation is seeking to make its programs more effective in support of U.S. exports. It has intensified its efforts to support small business firms in overseas investments that may also lead to increased U.S. exports. It is developing a program to strengthen the operations of distributors of U.S. products. Also, by supporting milling operations in developing countries, OPIC has indirectly supported U.S. exports of wheat, feedgrains and other farm commodities.

The OPIC Board of Directors recently supported legislative proposals relevant to OPIC's role in U.S. export financing. First, it recommended that OPIC be given a specific mandate to seek to support those developmental projects in developing countries which will increase the value and volume of U.S. exports. Such a legislative mandate would reemphasize and highlight the positive role OPIC can play in the export area and will encourage OPIC to continue its present efforts to support U.S. exports. Second, it recommended removal of the present statutory restrictions on operation of OPIC programs in developing countries with GNP per capita of $1000 or more in 1975 dollars. Because of this restriction, OPIC has been unable to support a number of investment opportunities having U.S. export potential in such countries. The Administration has these proposals under consideration.

DOMESTIC INTERNATIONAL SALES CORPORATION

Background

The Domestic International Sales Corporation (DISC) is a form of organization which provides a tax incentive for exports. Through its use companies incorporated in the United States and engaged almost exclusively in the export of U.S. products are allowed to defer payment of Federal income taxes on one-half of their export profits. It was enacted into law as part of the Revenue Act of 1971, and is contained in Sections 991 through 997 of the Internal Revenue Code. The purpose of the DISC is to stimulate direct exporting from the United States by using the tax deferral mechanism to increase the international competitiveness of U.S exports.

DISC Provisions

To qualify as a DISC, a company must be incorporated in the United States, meet certain minimal organizational requirements, derive at least 95 percent of its receipts from qualifying export sales, leases or rental transactions, and show that 95 percent of its assets are export-related. Qualified receipts include those derived from architectural and engineering services, services "related and subsidiary" to the sale of export property, managerial services provided to another DISC and certain receipts from export finance, as well as income derived from the sale, lease or rental of export property.

A DISC can function as a principal, buying or selling on its own account, or as a commission agent. It may be related to a manufacturing parent or be an independent merchant or broker. Special intercompany pricing rules for transactions between a DISC and its parent allow a larger profit to the DISC than would normally be permitted under the "arm's-length" pricing rules of the Internal Revenue Code.

The DISC provisions allow qualified companies to retain, free of current income tax liability, up to one-half of their annual income. Such income is not taxed until distributed, provided it is used in certain export development activities. The remaining half of a DISC's annual income must be "passed through" to the shareholders on a current basis, and these prorated amounts are taxable as part of the shareholder's income. In cases where DISCs are owned by corporations, which is the most frequent case, the intercorporate dividend deduction does not apply on the distributions.

Recent Legislative Changes

The Tax Reduction Act of 1975 and the Tax Reform Act of 1976 have somewhat narrowed eligibility criteria and the scope of DISC benefits. The former disqualifies exports of raw material and energy resources, the extraction of which is subject to percentage depletion, unless at least half of the value of the export is due to post-extraction U.S. processing or manufacturing. It also denies benefits to exports of products declared in short domestic supply under the Export Administration Act.

The Tax Reform Act of 1976 reduces the DISC deferral on exports of military property to one-half of that usually allowed. It also provides that DISC

earning in excess of $100,000 may take advantage of the standard 50 percent deferral only to the extent that the value of its exports in the tax year reported exceeds 67 percent of its previous average annual base period exports. Until 1980 the base period comprised the four years from 1972 through 1975. For 1980 and each successive tax year, the four year base period progresses annually by one year.

The GATT and Subsidies/Countervailing Measures Agreement Issue

The DISC, as well as certain tax schemes of France, Belgium and the Netherlands, have been subject to complaints under GATT Article XVI:4, which maintains that these practices constitute export subsidies and thereby impair the trading rights of other countries. There has been no final resolution of these cases in the GATT. The Subsidies/Countervailing Measures Agreement, which resulted from the successful Multilateral Trade Negotiations concluded in 1979, defines measures allowing tax deferral specifically related to exports as an export subsidy generally prohibited by the GATT. However, the parties to the code agreed in a footnote that this language would not prejudice the question of the DISC legitimacy currently before the GATT Council. It is also true that the Agreement indicates that deferrals such as the DISC need not amount to an export subsidy if appropriate interest charges are collected.

Effect on Exports

DISC operations are described in Annual Reports on the DISC issued by the Department of the Treasury. The most recent report, issued in April 1980 and covering the year 1978, indicates that 73 percent of all U.S. exports in that year were passed through DISCs. It also attributes to the DISC program responsibility for generating in 1978 an export level $3.6 billion greater than would have occurred without it. The $3.6 billion figure is a maximum estimate, because it does not take account of any displacement of non-DISC exports by DISC exporters, nor of the reductions in exports due to any appreciation in the exchange rate which might have been caused by the DISC. Based on a comparison of the $3.6 billion with an estimated revenue loss of $729 million for the year due to tax deferrals, the DISC program has a cost-effectiveness ratio of 5:1, i.e., $1 in deferred revenue to the Treasury will sustain a $5 gain in additional exports. This ratio may decline in future years, however, as the level of base period exports increases and as exporters have time to adjust to the reduction of DISC benefits inherent in the incremental provisions.

The total number of companies operating as DISCs reached 12,192 in February 1980, and was growing at an average monthly rate of about 95. Large firms account for the largest share of the DISC deferred income. However, recent data on firms filing for the DISC benefit show that a significant number of small and medium-sized firms are making increased use of the incentive. According to the 1978 report, over 80 percent of the DISCs were owned by corporations with less than $50 million in assets, and nearly 60 percent of the parent firms had assets of $10 million or less.

Early in 1978 the Administration had asked Congress to phase out the DISC over a period of three years. In lieu of such a phase out the President in his export statement of September 26, 1978 expressed a willingness to work with Congress to make it more cost efficient. In the April 1980 report of the White House Conference on Small Business, business groups and others suggested that the DISC be expanded in various ways to make it more cost effective and attractive to small and medium-sized exporters. And to extend its benefit to the export of additional services. Although the international economic climate, including the need to bolster our balance of trade, demonstrates the necessity for continuing the DISC export incentive for the time being, the need to restrain new budgetary expenditures as well as constraints of our GATT obligations under the Subsidies/Countervailing Measures Agreement, appear to make inappropriate and unlikely any legislative effort for a major expansion of the DISC incentive.

PART 2

POTENTIAL PROGRAMATIC AND REGULATORY DISINCENTIVES TO EXPORTS

Export disincentives can be defined as U.S. Government laws, regulations, programs, controls, policies, and institutions that may have a significant negative effect on exports. Disincentives may prohibit exports, raise the cost of producing goods for export, increase the uncertainty or cost of exporting, or lengthen the time and increase the risk in completing export transactions. All of these impediments can provide a relative advantage to foreign exporters in competing against U.S. exporters in world markets. A broad range of programs and regulatory activities was selected for review as potential disincentives to exports.

CHAPTER 7. EXPORT CONTROLS

This chapter discusses controls on U.S. exports and re-exports that have been adopted to further the non-trade policies of the United States. The six types of controls discussed are: national security export controls, foreign policy controls, arms export controls, nuclear export controls, short supply export controls, and controls on the export of hazardous substances. It is instructive to note that, unlike certain other disincentives discussed in this report, these controls are intended to prevent the export of certain goods and technology (i.e., their negative effects on exports are not merely the inadvertent result of a program established without exports in mind).

NATIONAL SECURITY EXPORT CONTROLS

Definition of the Potential Disincentive

Limitations imposed on the export and reexport of goods and technology for national security purposes, and the validated license application procedures associated with these controls, prohibit some U.S. exports and may discourage others.

Statutory Authority and Policy Objectives

Export controls have been in operation continuously since 1940. The earliest restrictions were short supply controls to ensure that adequate quantities of goods were available during World War II. The development of the Cold War led to passage of legislation in 1949 which provided for national security controls to restrict the flow of strategic items to Communist countries. The Export Control Act of 1949 continued in force for twenty years, being extended and amended from time-to-time. It was replaced on January 1, 1970 by the Export Administration Act of 1969 and was subsequently replaced on September 27, 1979. This new legislation, the Export Administration Act of 1979 (EAA), is the present authority for controlling the export of strategic items for national security purposes. Section 3(2)(A) of the EAA (P.L. 96-72, Section 3(2)(A)) authorizes the use of controls to the extent necessary:

> "to restrict the export of goods and technology which would make a significant contribution to the military potential of any country or combination of countries which would prove detrimental to the national security of the United States."

In addition to unilateral national security controls, the United States respects an informal agreement with its NATO allies (except Iceland) and Japan by which we voluntarily apply multilateral export controls on strategic items to certain nations for reasons of national security. The majority of national security export controls imposed by the United States are also imposed by the member governments of this International Coordinating Committee

(COCOM). The fifteen COCOM member nations are Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Turkey, the United Kingdom, and the United States.

Currently, 126 entries (entries contain single items as well as categories of items to be controlled) on the Commodity Control List (CCL) are subject to multilateral security controls, while an additional 32 entries are controlled unilaterally by the United States for national security purposes. The CCL is the section of the Export Administration Regulations (15 CFR Section 399.1) that lists all of the exports controlled by the U.S. (unilaterally and multilaterally) and the destinations for which these restrictions apply. In response to Soviet aggression in Afghanistan, the United States has recently imposed additional national security controls on certain exports to the USSR and has sought the agreement of other COCOM members to impose comparable restrictions.

The objective of national security controls is to restrict the shipment of strategic goods and technology in order to assure that these items are not exported or reexported to countries that would use them to the detriment of the United States' national security. To the maximum extent possible, the United States pursues this objective in cooperation with other nations and makes a diligent effort to formulate a unified national security control policy. The United States attempts to keep these controls to the minimum level necessary for the furtherance of domestic and international security so as to avoid unwarranted restrictions on trade.

In addition to seeking the cooperation of other nations in limiting the supply of controlled items, it is clearly the intent of the Administration and Congress to assess carefully the foreign availability of strategic items before imposing national security export controls. Section 5(f)(1) of the Export Administration Act of 1979 states that the Secretary of Commerce may not

> "require a validated license for the export of such goods or technology during the period of such foreign availability unless the President determines that the absence of export controls ... would prove detrimental to the national security of the United States."

In addition, section 4(c) of the Act provides that " ... the President shall not impose export controls for ... national security purposes on the export from the United States of goods or technology which he determines are available without restriction from sources outside the United States in significant quantities and comparable in quality to those produced in the United States, unless the President determines that adequate evidence has been presented to him demonstrating that the absence of such controls would prove detrimental to the ... national security of the United States."

Since the majority of national security export controls imposed by the United States are also imposed by other COCOM members, the foreign availability of these items from non-U.S. sources is significantly limited and the effectiveness of the control is enhanced. It is evident from Table 1 that during the first three quarters of 1979, 98 percent of the validated license applications denied by the United States involved items that are restricted by multinational (COCOM) security export controls.

7 - 3

TABLE 1

NATIONAL SECURITY EXPORT LICENSE APPROVALS AND DENIALS
FOR THE U.S.S.R, EASTERN EUROPEAN DESTINATIONS,
THE PEOPLES' REPUBLIC OF CHINA AND THE MONGOLIAN PEOPLES REPUBLIC[1]

	Apr. 79-Sep. 79	Oct. 78-Mar. 79	Apr. 78-Sep. 78	Oct. 77-Mar. 78	Apr. 77-Sep. 77
Value of Approved Licenses	$401.8m	$363.7m	$198.8m	$142.0m	$99.0m
Value of Denied Licenses	$7.1m	$3.8m	$11.2m[2]	$1.3m[3]	$27.0m
Number of Applications for Exports to P, Q, W, Y and Z Destinations[4]					
Total Processed	3232	3686	3237	na	na
RWAs[5]	573	588	506	na	na
Denied	77	71	68[2]	60[3]	156
Denied under COCOM	76	69	68	59	155

na Not available.

1 The embargoed countries of Kampuchea, Cuba, North Korea and Vietnam are excluded because of the insignificant number of license applications to these destinations.

2 Some denied for both foreign policy and national security reasons.

3 One denial for foreign policy purposes to Eastern Europe ($727).

4 Figure also includes a small number of applications for items controlled for foreign policy and short supply reasons.

5 Returned without action.

SOURCE: U.S. Department of Commerce, Industry and Trade Administration, Export Administration Reports (published semi-annually).

Administration of Controls

More than 90 percent of U.S. exports (in terms of dollar value) are shipped under general license authorization, i.e., without the need to obtain a validated export license in advance from the Department of Commerce. The remainder consists of strategically sensitive items that are controlled carefully to assure that they will not be shipped, directly or indirectly, to communist nations unless the U.S. Government has determined that no danger to our security would result. (Certain commodities also are controlled for foreign policy or short supply purposes. These are discussed in other sections of this chapter.) These sensitive items are identified by the Secretary of Defense in consultation with the Secretary of Commerce, and they are added to the Commodity Control List (CCL).

The Department of Commerce, Office of Export Administration (OEA), either issues specific validated licenses or permits exports under broad general licenses. An exporter determines whether a validated license is required by consulting the CCL for the commodity and destination under consideration. OEA receives approximately 275 license applications per working day. Of these, roughly 6 percent are for direct exports to the communist countries, 80 percent for direct exports to non-communist countries, 7 percent for authority to reexport U.S. commodities from one country to another, and 6 percent for extension or amendment of previously issued export or reexport authorizations. The remaining 1 percent cover miscellaneous export requests such as approval to use U.S.-origin components in the manufacture abroad of commodities that will be exported to other countries.

In administering these controls, the Department of Commerce consults extensively with the Departments of Defense, State, Energy, and Treasury, as well as other concerned agencies.

For the purposes of controlling the export of items to foreign countries, potential destinations are categorized into "country groups". National security controls affect U.S. exports of strategic items to nations in country groups P, Q, W, Y and Z. These country groups include primarily the U.S.S.R., the Warsaw Pact allies, and the Peoples' Republic of China (PRC). The recent history of national security export license approvals and denials shows that a relatively small portion of applications to these destinations actually has been denied (Table 1). However, since the Soviet invasion of Afghanistan, a broader range of exports to the U.S.S.R. is being denied.

During the second and third quarters of 1979, 77 national security export control license applications were denied, representing about 2 percent of the more than 3,200 total applications processed to P, Q, W, Y, and Z destinations. The value of these denials is estimated at $7.1 million or about 2 percent of the value of licenses approved during the same period. However, the number and value of denials are not comprehensive measures of the economic impact of export controls on U.S. trade. In general most experienced exporters know which items raise national security concerns and they do not attempt to procure validated export licenses for them. (Less experienced exporters may be less aware of these national security questions and may submit applications for items that are denied.)

Private Sector Views

Private sector views expressed in response to the Federal Register notice, at the business conference held on June 2, and elsewhere, indicated continuing private sector concern about national security export controls. Nevertheless, private sector representatives seemed to understand and accept the need for national security export controls. Since the existence of these controls is closely tied to the long-standing policies of the United States vis-a-vis certain other countries, they are relatively predictable. Labor representatives voiced strong support for the legislation on which these controls are based and expressed the view that export expansion must play a secondary role to national security. The exporting community appeared to understand that the recent national security and foreign policy controls placed on exports to the Soviet Union are necessary. In addition to these general comments which were supportive of the controls, specific criticisms were voiced by private sector representatives. These can be grouped into five major categories: (1) foreign availability; (2) uncertainty; (3) administrative procedures; (4) extraterritorial application of controls; and, (5) unilateral controls.

Foreign Availability. Exporters indicated that they felt little relief from the impact of export controls as a result of the new EAA of 1979. They expressed dismay that the United States Government is not better able to assess the quantity and quality of controlled items available from foreign sources. U.S. exporters have stated that the imposition of controls in the presence of foreign availability may allow foreign competitors to supplant them in international markets.

Uncertainty and Administrative Procedures. Business representatives commented that the current export licensing system introduces delays and uncertainty into the export process. They felt that the involved interagency review process and the lengthy case-by-case approach to applications cost them sales. There was some sentiment among these exporters that the diffusion of responsibility among and within agencies results in a lack of administrative responsiveness. The costs associated with export license preparation, justification, and progress monitoring are very real considerations of small and large exporters alike as they contemplate entering foreign markets. These administrative complexities are particularly burdensome to small exporters and the process can completely deter some prospective exporters from becoming actual exporters.

Extraterritorial Application of Controls. Some exporters felt that U.S. controls were overly restrictive compared to those imposed by U.S. allies. An example cited by exporters pertains to extraterritorial controls on the reexport of U.S.-origin products and technical data and exports of certain products made abroad by foreign firms using U.S.-origin unpublished technical data to P, Q, W, Y, and Z destinations. Some private sector representatives reported that these controls act as a deterrent to U.S. exports to many markets, because a foreign importer of U.S. components is required in some cases to obtain the approval of the U.S. Government prior to exporting a finished product containing U.S.-origin components to these destinations. In view of this restriction (and the delay and uncertainty of applying for approval), foreign importers have an incentive to purchase components from non-U.S. sources.

Some exporters reported that when the United States attempts to control these items unilaterally, it incurs the antagonism of foreign exporters who need reexport authorization for goods or technology of U.S.-origin. For instance, some items are not controlled by U.S. authorities, even when they contain embargoed components (such as a sewing machine containing an embargoed microprocessor). However, strict application of U.S. regulations would require U.S. reexport licensing for the embargoed component even when it is incorporated in a foreign-produced machine otherwise not controlled. (The foreign exporter would require U.S. reexport approval for the US-origin microprocessor incorporated in his sewing machine.) When the end-product is itself controlled, U.S. reexport licensing subjects foreign manufacturers to the same level of control as U.S. manufacturers, where the foreign controlled product contains U.S.-origin components.

This last control is frequently redundant because COCOM-member (and other) countries exercise similar controls on exports of controlled items to controlled destinations, and COCOM export approval requires unanimous agreement (including agreement on the items in the "Administrative Notes" which are administered unilaterally). Exporters reported that this extraterritorial control puts U.S. business at a competitive disadvantage. Some U.S. firms claimed this control to be an incentive to develop technology overseas using the expertise of foreign nationals to minimize the need for a re-export license.

Unilateral Controls. In addition to those items controlled multilaterally by COCOM for national security reasons, the United States controls certain other items unilaterally either for reasons of national security or foreign policy. U.S. exporters claimed that these unilateral controls are ineffective because many if not most of the items they cover are available from foreign suppliers. Thus, they maintained that these restrictions only deprive them of sales contracts and related business which are ultimately awarded to non-U.S. competitors. However, exporters did not claim it was undesireable to maintain the flexibility to act unilaterally if necessary for the national security of the United States.

Private Sector Suggestions. Many of the private sector views contained suggestions which some exporters believed would minimize the detrimental impact of some controls on their international business. These recommendations ranged from the outright abolition of export controls under the EAA to specific modifications of current restrictions. In general, organized labor's recommendations differed from those of the exporting community by supporting more stringent export controls and de-emphasizing the importance of foreign availability. The following proposals are representative of suggestions received from business and industry:

- Identify obsolete control criteria and apply updated standards to assure that the CCL reflects the state of the art in commercial product design and allows U.S. exports to remain competitive in international markets;

- Remove all validated license requirements on exports to Australia, New Zealand and COCOM countries and treat them more or less like Canada in this regard, requiring that the exporter file assurances at the time of export that there will be no reexport of the items involved outside COCOM, Australia and New Zealand unless U.S. reexport licensing requirements have been satisfied.

- Precisely define and control "militarily critical technology" instead of controlling products that merely contain this technology in embedded form;
- Review and streamline license administration procedures;
- Enhance the foreign availability assessment capability of the Office of Export Administration and prohibit controls whenever comparable alternative sources will surely replace U.S. exports;
- Curtail unilaterally imposed controls;
- Curtail extraterritorial controls on reexports of U.S.-origin goods;
- Change regulations to permit the concurrent procurement of import certificates and export licenses to avoid lengthy processing delays; and,
- Review carefully the export control administration procedures of our COCOM allies to see if any of their approaches would be applicable to the United States.

Current Status and Continuing Developments

Some of the private sector suggestions have already been considered for implementation. Of these, some have been applied and others are still under evaluation. The refinement of a policy as complex as export control policy is an ongoing process which the Administration and the Congress must continue.

The new Export Administration Act of 1979 acknowledged the need for indexing, or removing from the CCL, items which should be decontrolled due to obsolescence, and the curtailment of site visit requirements, where appropriate. Section 5(g) of the EAA of 1979 states:

> "In order to ensure that requirements for validated licenses and qualified general licenses are periodically removed as goods or technology subject to such requirements become obsolete with respect to the national security of the United States, regulations issued by the Secretary may, where appropriate, provide for annual increases in the performance levels of goods or technology subject to any such licensing requirement. Any such goods or technology which no longer meet the performance levels established by the latest such increase shall be removed from the list .... The Secretary shall also consider, where appropriate, removing site visitation requirements for goods and technology which are removed from the list unless objections described in this subsection are raised."

The review of items which may be decontrolled due to obsolescence is an ongoing process. However, it is difficult to develop and maintain standards to reflect the state of the art technology and to identify those items for the purposes of export controls. Standards are required not only for technology relating to the manufacturing, packaging and actual performance of the product, but also for the tremendous array of combinations and

permutations of each of these techniques. Many techniques are never formally defined in simple specifications because they are embodied in the unique know-how of industry. Morever, the competitive process encourages the rapid development of technology to such an extent that standards become obsolete relatively quickly.

Section 5(d) of the EAA of 1979 requires that the Secretary of Defense take prime responsibility for developing a list of militarily critical technologies and that the initial version of the list be published in the Federal Register later this year. The "critical technologies" study is in progress and it is expected that a preliminary list of critical technologies and their key manufacturing equipment will be available soon. It is too early to comment on what impact the completed list will have on United States national security controls.

Section 5(e) of the EAA mandates that a qualified general license, authorizing multiple exports to approved consignees, be an option for exporters of certain commodities by July 1, 1980. It is the intent of Congress to encourage the use of qualified general licenses in lieu of the more restrictive validated licenses in cases where the item is controlled by multilateral (COCOM) agreement, but no multilateral approval is required for exporting the item. With industry assistance, the Department of Commerce has developed the format for the Qualified General License and recently has implemented it.

Section 10 of the EAA of 1979 outlines new procedures for processing export license applications. These provisions clearly stipulate the amount of time that departments and agencies may hold applications for review. It is anticipated that these new procedures will minimize some of the delays and uncertainty that have been affecting U.S. exporters. In Fiscal Year 1979, more than half of the national security licenses were processed in less than 90 days, and 80 percent were processed in less than 180 days.

The participation of concerned departments and agencies in processing export license applications is obtained through a long-standing interagency review structure. Most license applications on which Commerce requires the advice of another department or agency are referred to the department(s) or agency (ies) through a brief memorandum analyzing the case and setting forth Commerce's proposed resolution. Each such department or agency then communicates its response to Commerce directly, usually by telephone.

Every year several hundred of the most complex license applications are processed more formally through an inter-agency Operating Committee (OC). (A few of these applications were first routed through the informal process described above, and referred to the OC when it proved impossible to obtain a consensus among all parties concerned). The OC consists of senior staff representatives from Commerce, Defense, Energy, State, Treasury, the Central Intelligence Agency, Arms Control and Disarmament Agency and also other departments and agencies, such as Transportation, the United States Trade Representative and the National Aeronautics and Space Administration, for cases that affect their interests. Commerce distributes to all the concerned departments and agencies a detailed analysis and proposed resolution for all cases sent to the OC. The OC discusses these cases at regular weekly meetings so that some consensus can be fashioned from often differing initial views. When the OC is unable to resolve a case, it is referred to the policy levels of the departments and agencies that participate in the OC.

As previously mentioned, the majority of national security export controls imposed by the United States are also imposed by the major governments of the International Coordinating Committee (COCOM). Despite similarities in our controls, it appears desirable for the United States to maintain the flexibility to act unilaterally if necessary for our national security. Recent experiences in Iran and Afghanistan have demonstrated that it takes time to elicit the support of foreign countries for actions which the United States has deemed in its national security interest. Although the President seeks the cooperation of foreign countries when imposing restrictions in this area, it is essential that the United States be able to respond quickly to evolving international situations. To assure the timeliness of all national security controls, the President has the authority to discontinue any control whenever he deems it has fulfilled its purpose. In addition, to assure that controls reflect the current international situation, unilateral controls are reviewed annually and multilateral controls are reviewed at least every three years.

Section 5(f) of the EAA of 1979 requires the establishment of a capability within the Office of Export Administration to monitor and gather information with respect to the foreign availability of any items subject to controls. However, the Congress has not yet authorized or appropriated adequate funds for this purpose. The Office of Export Administration is using funds in its current budget to determine what will be necessary to establish such a capability.

It is the intent of the Administration and Congress that national security export controls be used as sparingly as possible. The new Export Administration Act of 1979 contains several provisions reflecting this sentiment. Many of them -- consideration of foreign availability and the economic impact of controls, revised license application review procedures; new qualified general licenses -- have been discussed at length in this section of the report. Many of these initiatives are in the process of being, or have recently been, established.

FOREIGN POLICY EXPORT CONTROLS

Definition of the Potential Disincentive

Controls on exports to further foreign policy objectives and the associated validated license procedures have a negative impact on some U.S. exports.

Statutory Authority and Policy Objectives

Export controls have been imposed to support general policies involving human rights, international terrorism, regional stability, and special policies concerning our relations with South Africa, various Communist countries, and Iran. (Although arms export controls are also used to support various foreign policy objectives, they are discussed in a separate section).

Human Rights. Section 502B of the Foreign Assistance Act of 1961, as amended, and Section 6 of the Export Administration Act of 1979 (subsection 6(j) is particularly relevant), establishes policy guidelines under which separate authority is implemented to control crime control and detection equipment to all countries except NATO members, Japan, Australia, and New Zealand, and munitions for human rights purposes.

The purposes of the controls on crime control equipment are to produce an improvement in human rights, to encourage all nations to promote the increased observance of human rights, to distance the U.S. Government from repressive practices, and to raise the visibility and priority of human rights in violator countries in the world (as provided for in Section 502B of the Foreign Assistance Act of 1961, as amended). Where a consistent pattern of gross violations of internationally recognized human rights appears to be developing, use of export controls might help to deter such development.

International Terrorism. Under the principal authority of Section 6 of the Export Administration Act of 1979 and taking into account sub-sections 3(8) and 6(i) of that Act, items judged to make a significant contribution to military potential or to enhance the ability to support terrorism are controlled to Libya, Iraq, People's Democratic Republic of Yemen, and Syria. The objective is to encourage governments which engage in a pattern of support for terrorism by aiding, encouraging, or giving sanctuary to persons involved in acts of international terrorism to reduce such support.

Regional Stability. Under the authority of the Arms Export Control Act, munitions controls are used, inter alia, to avoid strengthening the capability of countries to mount hostile actions endangering the security of third countries friendly to the United States. Under the authority of Section 6 of the Export Administration Act of 1979, large tractors capable of transporting tanks are controlled for export to Libya.

South Africa. As a matter of United States foreign policy and in conformity with United Nations resolutions, the United States prohibits arms transfers to South Africa under the authority of the Arms Export Control Act. Under the authority of Section 6 of the Export Administration Act of 1979, all exports to South African police and military entities are prohibited, and aircraft and computers are controlled to other consignees in that country. The objectives are to distance the United States from the practice of apartheid, strengthen the effect of the United Nations arms embargo, and support racial justice throughout Africa.

USSR. Section 6 of the Export Administration Act provides the basis for restricting shipments for foreign policy reasons, such as controls on exports to the USSR of oil and gas equipment, grains and other agricultural commodities, phosphates, items related to the Moscow Olympics, and diesel engine assembly lines for the Kama River truck plant. The oil and gas equipment controls provide a flexible foreign policy tool to sensitize the Soviets regarding actions which are damaging to United States foreign policy interests. The other controls were imposed in order to demonstrate that the Soviet Union cannot engage in acts of aggression, such as the invasion of Afghanistan, with impunity.

Other Communist Countries. Virtually all exports are prohibited to North Korea, Vietnam, Kampuchea, and Cuba under the principal authority of the Trading With the Enemy Act of 1917, Section 6 of the Export Administration Act of 1979, and, in the case of Cuba, Section 620(a)(1) of the Foreign Assistance Act of 1961. North Korea is still technically in a state of war with the United States, the Republic of Korea, and the United Nations. Controls were imposed on Vietnam to assist in the prosecution of the war there Some time ago, the United States Government announced its willingness to end the embargo on trade with Vietnam at such time as normal diplomatic relations are established. The subsequent Vietnamese invasion of Kampuchea has blocked progress. Controls on exports to Kampuchea, except for humanitarian aid to the people, continue in light of the Vietnamese occupation and armed conflict. Full normalization of trade and diplomatic relations with Cuba hinges upon Cuban willingness to address, among other issues, restraint in other countries and compensation for American citizens whose property was expropriated by the Cuban Government.

Iran. Under the authority of the International Emergency Economic Powers Act, exports to Iran of all items except food and medicine are prohibited. The purpose is to encourage the release of United States diplomatic personnel being held as hostages in Iran. Nations of the European Community and Japan have imposed similar controls.

Administration of Controls

The President's September 1978 statement of export policy directed that export consequences be taken fully into account and that weight be given to foreign availability in the administration of foreign policy export controls.

The Export Administration Act of 1979 expanded upon this Presidential initiative. The new Act calls for consideration of the likely success of the controls in furthering their intended foreign policy objective; the compatibility of the proposed controls with the foreign policy objectives of the United States; the reaction of other countries; the likely effects on the U.S. export position, on U.S. competitiveness and reliability as a supplier, and on individual companies and communities; and the ability of the United States to enforce the controls effectively. It provides for consultation with industry and the Congress and for consideration of alternative means of furthering foreign policy objectives. It prohibits imposition of controls where there is foreign availability unless the President determines that, notwithstanding such availability, the absence of controls would be detrimental to the foreign policy of the United States. It requires an annual review and explicit identification of foreign policy export controls.

The first annual review, completed in December 1979, resulted in a significant reduction in the scope of controls. For most countries, the remaining foreign policy license requirements apply only to items intended for crime control and detection.

Private Sector Views

Private sector views expressed in response to the Federal Register notice, views expressed at the June 2 conference on export controls, and other input indicated continuing private sector concern about foreign policy controls. Organized labor supported such controls on exports for foreign policy purposes when necessary. U.S. business was concerned about the impact on exports and representatives stated that such controls have caused both direct and indirect export losses for both munitions and non-munitions items. Specific criticisms fell generally in the three categories of (1) delays and uncertainties, (2) reliability, and (3) foreign availability.

Delays and Uncertainties. U.S. exporters reported that delays in processing export license applications have led to lost sales, even in instances where the licenses were eventually issued. Although actual foreign policy controls are now clearly identified, uncertainties continue as to where such controls might be imposed next and where a license application might be denied under existing controls for which there had been a pattern or an expectation of approvals. Some companies stated that they have experienced difficulties in obtaining contracts in countries where the U.S. Government had expressed public displeasure with the actions of that country's government, even though the United States was not actually denying any license applications.

Reliability. U.S. exporters claimed that economic sanctions have helped to create a worldwide image of the United States as an unreliable supplier and have, thereby, encouraged foreign buyers to turn to other suppliers. U.S. firms claimed they often are viewed as a supplier of last resort, even when their technology is preferred. In some instances, U.S. firms reported they have been unable or unwilling to compete for business or to pursue follow-on business in markets where foreign policy controls have generated additional risks and costs. One example of these costs is insurance that U.S. firms purchase to cover losses which might arise if they are prevented from honoring their contracts due to the imposition of controls.

Foreign Availability. U.S. exporters have been particularly concerned about losing export orders when comparable goods are readily available from other supplier nations. U.S. exporters claimed, in those instances, that the country which is the target of the controls merely diverts the order to non-U.S. suppliers. The result, U.S. exporters believed, is a greatly diminished effect of sanctions on the target country and an immediate economic loss to the United States. Moreover, a permanent loss can result if the target country maintains its new commercial relationship with the non-U.S. suppliers rather than switching its orders back to the United States, if and when export controls are removed.

Some exporters expressed dissatisfaction that the U.S. Government is not better able to determine the quantity and quality of foreign availability for some controlled items. Although the EAA of 1979 directed the establishment of a foreign availability capability within the Office of Export Administration (OEA), adequate funding has not been authorized or appropriated by Congress. In addition, some exporters claimed that even when there has been evidence of foreign availability, the Administration has overridden this consideration and imposed foreign controls in support of other policy goals.

When items are available from foreign suppliers, exporters questioned whether foreign policy controls are effective in achieving their intended purposes and in depriving the foreign country of the controlled items. In addition, they felt that restrictions encourage foreign countries to develop their own capabilities more rapidly, reducing their demand for U.S.-origin goods.

Private Sector Suggestions

Many of the private sector views included suggestions which some exporters believed would minimize the detrimental impact of some controls on their international business. While the exactness and nature of the suggestions varied widely, the following are representative:

- Limit controlled items, countries of destination, and consignees more closely to the foreign policy problem being addressed.
- Use controls where there is a reasonable prospect that they would alter the behavior of the target country, but not just to distance the United States from that country's policies.
- Consider restricting U.S. imports rather than U.S. exports, since this would adversely affect the export earnings of the target country.
- Give greater weight to the foreign availability of items when export controls are imposed.

Current Status and Continuing Developments

Foreign policy export controls have been effective in calling global attention to U.S. disapproval of certain policies of foreign governments and in distancing the U.S. Government from those policies. At the same time, the export sanctions have not been fully effective in changing particular policies of foreign governments, although in some cases, they appear to have been a factor contributing to improvements in human rights conditions or to furtherance of other foreign policy objectives.

Export controls imposed for foreign policy reasons have caused the United States to lose exports. Some loss, is of course, inevitable if export controls are to be used to further foreign policy objectives. The new foreign policy export control provisions of the Export Administration Act of 1979 and the initial actions of the Administration in identifying and extending foreign policy export controls are all consistent with making export costs visible and holding them to a minimum, while still permitting use of these controls when necessary for important foreign policy objectives. The provisions of the EAA of 1979 are being implemented and experience is being gained in selecting foreign policy controls and processing license applications under the new guidelines in an effort to minimize the cost of achieving necessary foreign policy objectives.

The refinement of export control policy is an ongoing process. The following actions demonstrate the conviction of the Administration to apply controls sparingly with minimum costs to the exporters:

- The embargo on exports to Uganda was discontinued in 1979 when the human rights performance of the government of that country improved.

- The embargo on exports to Zimbabwe-Rhodesia was discontinued in 1979 when arrangements were made for majority rule.

- On December 29, 1979, identification of foreign policy controls to be continued into 1980 further reduced the scope of foreign policy export controls and removed uncertainty as to what they were.

- Deadlines for processing export license applications contained in Section 10 of the Export Administration Act of 1979 became effective on July 1, 1980, and are expected to decrease unnecessary licensing delays.

The President further emphasized the Administration's intent in his February 27, 1980, statement on reducing export disincentives:

> "In considering new export controls to achieve foreign policy objectives and in reassessing current sanctions -- except in the field of arms exports -- my Administration will be highly selective in the use of controls where the affected country has access to alternative supply."

ARMS EXPORT CONTROLS

Definition of the Potential Disincentive

U.S. conventional arms transfer policy is based on restraint consistent with U.S. security and the security of friends and allies of the United States. Under this policy, exports of defense articles and services may be made only for the purpose of furthering U.S. foreign policy or national security interests. Marketing or promotion of sales must also conform to this purpose. Controls are maintained on the export of arms to all destinations, with the degree and kind of controls dependent on the nature of U.S. relations with the recipients. The purpose of these controls is to reduce the threat to world peace embodied in the spiraling arms traffic, taking into account special responsibilities which the United States bears as a major producer. The United States has tried to reduce large flows of arms in two ways: first, by imposing unilaterally quantitative and qualitative controls on U.S. transfers abroad; and second, by seeking to engage other major suppliers and recipients in an effort to exercise restraint.

Statutory Authority and Policy Objectives

The President's Conventional Arms Transfer Policy Statement of May 1977 (reproduced as Appendix E) provides the policy framework for the control of arms exports. The legal strictures are contained primarily within the Arms Export Control Act and the Foreign Assistance Act of 1961, as amended.

The arms transfer policy serves the following general objectives:

- To encourage a general reduction in both world arms transfers and reliance on military might as an essential element in securing a more peaceful and stable world order;
- To curtail the potential for arms races and limit the intensity of conflict if it occurs;
- To reduce the potential and pressure for U.S. involvement in local conflicts to the extent this follows from various arms supply relationships;
- To reduce reliance on arms transfers as a means of implementing our diplomacy;
- To protect U.S. military capabilities by limiting the dispersion of military technology that could be used against the U.S. and its allies;
- To distance ourselves from regimes which do not respect basic human rights and fundamental freedoms;
- To limit the diversion of monies and skills in developing nations away from fundamental economic development needs;
- To permit U.S. resources to be shifted from financing arms transfers to supporting economic development; and,
- To minimize the risk of diversion of destructive weapons to terrorists.

Administration of Regulations

U.S. defense articles, services and technology may be sold abroad or authorized for export by two methods:

1. Foreign military sales, which are government-to-government transactions administered by the Department of Defense under the policy direction of the Department of State; and
2. Munitions control licensing procedures, which are commercial transactions controlled by the Department of State's Office of Munitions Control.

Other Factors. The Arms Export Control Act requires that decisions on foreign military sales and commercial export licenses be made in coordination with the Director of the U.S. Arms Control and Disarmament Agency and take into account the Director's opinion as to whether such sales or exports might contribute to an arms race, increase the possibility of outbreak or escalation of conflict, or prejudice the development of bilateral or multilateral arms control arrangements.

With regard to human rights, in friendly countries where U.S. influence is felt, our policy has put distance between the United States and those governments which practice repression. Some of those governments feel that we no longer give adequate weight to their internal security problems, and argue that this conflicts with U.S. national security interests.

Under certain circumstances, Congress has the right to review or approve some transactions.

Effect on Exports

We are unable to develop a realistic estimate of the amount of exports that could have been made if U.S. manufacturers were permitted to promote sales of military equipment and services at will overseas. Since the express purpose of the policy is to restrain arms sales, the point is somewhat moot. Quantitative, qualitative, foreign and security policy restrictions are applied to the transfer of such equipment and services.

Quantitative Restrictions (Arms Ceiling)

Under current policy, sales to NATO members, Australia, Japan, and New Zealand are exempt from the annual arms transfer ceiling in furtherance of our collective security arrangements, and as such the policy causes no export disincentives to sales to our closest allies. In fact, sales to this group of countries have increased since implementation of the current policy. Nor has the ceiling itself ever led to disapproval of an arms sales proposal to a non-exempt country. As such the ceiling should be viewed more as a useful manangement tool rather than an export disincentive per se.

Qualitative Restrictions

Qualitative controls are exercised to restrict the transfer of sophisticated technology overseas. Countries having collective security arrangements with the United States normally have greater access to U.S. sophisticated technology and equipment than others.

Policy Restrictions

It is important to bear in mind that limitations placed on transfers of military equipment and services under Foreign Military Sales (FMS) or commercial auspices derive from foreign policy and security considerations that include, but go well beyond, questions of sophisticated technology. Thus, where U.S. policy toward a given country is driven by questions wholly unrelated to technology -- human rights, terrorism, or other specific country-related issues -- restraints may occur. Even unsophisticated military articles may adversely effect world peace and stability (especially in the less developed countries and regions) and it is in the interest of the United States to avoid contribution to, or be identified with such situations.

It should be noted that since prior to World War I the United States has exercised restraint on arms sales for a variety of reasons in furtherance of specific foreign policy and security objectives. Such restraint has been endorsed by both the Executive and Legislative Branches with the view that the policy objectives so promoted outweigh the value of the exports derived from the unrestricted export of such items.

Private Sector Views

The United States policy of restraint was seen by many exporters as too restrictive. They believed that other countries, such as France, West Germany, the Soviet Union, Italy, the United Kingdom, and Israel have stepped in where the United States has demurred, and as a result, American business has lost money and jobs.

U.S. business views on this issue were not uniform. The private sector maintained that it is not in favor of an unrestricted flow of U.S. arms to the world. However, business in general felt that our recent policies have resulted in serious and unnecessary political, security, and economic costs. U.S. policies appeared to some to set double standards. They maintained the policy has produced no effect on some of the world's most repressive regimes. Where U.S. influence is felt, business believed that considerations such as human rights may conflict with national security considerations. Thus, believed some, our arms transfer policies tend to hurt our relations with friendly countries.

Labor representatives, on the other hand, believed that the United States should continue to restrict arms sales, in some instances even when other governments do not. They also felt that less controlled sales might be interpreted as U.S. support for repressive regimes.

Private Sector Suggestions. In general, U.S. businesses felt that the licensing process for U.S. arms exports could be made less complex and time consuming. Other suggestions from U.S. exporters included:

- Abolish the ceiling on the annual dollar value of exports under FMS procedures of weapons and weapons-related items;
- Abolish prohibitions on shipments to particular countries
- Shorten and periodically update the Munitions Control list;
- Define "military critical technology" to insure that only those items which are really important are controlled; and,
- Relax restrictions on American Embassy assistance to defense contractors where export licenses for defense product data packages have been granted.

Current Status and Continuing Developments

Action has been taken to streamline munitions control licensing procedures in order to expedite the processing of applications. Even though the case load increased from about 27,500 in 1978 to about 30,000 in 1979, the average number of cases pending for over 30 days dropped from about 675 to under 400 and the average number of cases pending for over 90 days dropped from over 100 to the range of 50 to 75 (i.e., the number of cases requiring more than 30 days to process dropped from about 3,500 in 1978 to about 2,000 in 1979). This is partly attributable to efforts to enforce administrative procedures calling for agency comment on cases within 20 working days. Procedures for foreign military sales also have been accelerated. To preserve the policy

imperative, however, potential sales must undergo interagency coordination. Additionally pursuant to statute, major sales are certified to Congress for 50 days (20 days advance notification and 30 days formal) before an agreement may be concluded.

NUCLEAR EXPORT CONTROLS

Definition of the Potential Disincentive

The United States Government controls exports of nuclear materials, hardware, and technology to all destinations. The objective is to reduce the possibility of nuclear weapons proliferation by reducing access to weapons-usable material, equipment, and technology. Controls have also been placed on exports of dual-use equipment which, if used for purposes other than those for which the export is intended, could be significant for the development of nuclear explosives. Many U.S. nuclear export controls are a result of U.S. international treaty obligations under the Nuclear Non-Proliferation Treaty, further implemented under the Nuclear Suppliers Guidelines.

Statutory Authority and Policy Objectives

The control of nuclear and related exports has been required by Congress in the Atomic Energy Act of 1954, as amended; the Nuclear Non-Proliferation Act of 1978; the Export Administration Act of 1979 and authorized by Congress in Section 2(b)(1)(B) of the Export-Import Bank Act of 1945, as amended.

The Executive Branch, specifically the Departments of State, Defense, Energy, and Commerce, the Arms Control and Disarmament Agency, and the Nuclear Regulatory Commission are the agencies responsible for control of nuclear exports. The interagency processing and review functions are monitored and coordinated by the interagency Subgroup on Nuclear Export Coordination of the National Security Council, as mandated by the "Procedures Established Pursuant to the Nuclear Non-Proliferation Act of 1978". The procedures were published in the Federal Register on June 9, 1978.

The goal of the U.S. non-proliferation policy is to prevent the spread of nuclear explosive capability. (The U.S. Government view is that peaceful nuclear explosives are indistinguishable from weapons explosives.) The spread of nuclear capabilities would have a substantial destabilizing effect on international security and thus could be a threat to peace. The Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978, provides the legal basis for U.S. nuclear export control policy. This legislation seeks to achieve U.S. non-proliferation objectives by denying nuclear exports to nations which do not pursue effective non-proliferation policies and assuring supply to those countries which do. More specifically, the NNPA sets forth the following objectives:

- To establish a more effective cooperative framework for the worldwide development of peaceful nuclear activities;
- To ensure the reliability of the United States as a supplier of nuclear reactors and fuel to those nations pursuing effective non-proliferation policies;
- To provide incentives to other countries to join in international cooperation efforts and to ratify the Nuclear Non-Proliferation Treaty; and
- To ensure effective controls over U.S. exports of nuclear materials and technology.

Administration and Effects of Controls

The type of control maintained varies depending upon the significance of the item in a nuclear program. An export license for the most significant items, such as nuclear facilities, special nuclear material, and source material, can be issued only if: (1) an Agreement for Cooperation is in effect with the particular country; and (2) criteria are met concerning International Atomic Energy Agency (IAEA) safeguards, non-use for any nuclear explosive device, physical security, no retransfer or reprocessing without prior U.S. approval -- conditions prescribed in the Nuclear Non-Proliferation Act of 1978 (NNPA). Other nuclear items, such as deuterium, graphite, and nuclear facility components can be exported without an Agreement of Cooperation, but do require an export license and must meet other statutory criteria on IAEA safeguards, non-use for explosive devices, and no retransfer without U.S. consent. Export licenses for the above are issued by the Nuclear Regulatory Commission (NRC) but require an affirmative recommendation from the Executive Branch.

In addition to items which have direct nuclear applications, the United States also controls exports of items which, if used for purposes other than that for which the export was intended, could be of significance for nuclear explosive purposes. These are the items on the Commerce Department's "Nuclear Referral List". In addition, any item or technical data which the exporter knows, or has reason to know, will be used directly or indirectly for certain nuclear end-uses may be controlled. All these items are licensed by the Department of Commerce after referral to the Department of Energy and, when necessary, consultation with other specified agencies.

The disincentive effects of controls on U.S. exports are varied, and often depend on the stringency of U.S. regulations compared to those of other supplier nations. The complexity of the administrative procedures involved in the licensing process is also significant. A general international consensus exists on the need for nuclear export controls. The major nuclear exporting nations have undertaken to require IAEA safeguards, adequate physical security, non-weapons use of the exported items, and also to exercise restraint in sensitive nuclear exports. However, all major suppliers maintain independent export control mechanisms and rules, and opinions vary on the required scope of "adequate" controls. In many instances, U.S. nuclear controls are more strict than the controls of other supplier countries. This places U.S. suppliers at a disadvantage relative to

others and may ultimately result in sales losses. To the extent that this occurs, the more rigorous U.S. regulations are a disincentive to U.S. exports. The U.S. licensing review process itself is often cited as a disincentive. Again, this must be evaluated relative to the arrangements of other countries. When the length of time it takes for U.S. agencies to make a determination on any given application is longer than the time the review process takes in other countries, the process itself becomes a disincentive to U.S. exports and can result in loss of sales.

Another area of potential disincentives involves the uncertainties generated by U.S. policies prior to the NNPA and reflected therein regarding the future reliability of the United States as a nuclear supplier -- despite the Act's deliberate intentions to the contrary. Such uncertainties are related to the NNPA's requirement for the renegotiation of existing bilateral agreements and the other cumbersome licensing procedures established by the Act. To the extent that the United States is perceived by other nations as an unreliable supplier, U.S. exporters are at a disadvantage relative to other suppliers.

An evaluation based on reports from various sources such as Embassies, trade publications, newspaper articles, discussions with vendors and government officials suggests that between 1974 and 1978, government regulations and policies may have been a factor in nuclear plant sales losses although the specific dollar amount of such losses which are directly attributable to export controls cannot be ascertained. The loss of sales of uranium enrichment services is also difficult to estimate. Some losses in the area of reactor components, technology, fuel conversion services and dual-end-use commodities have also occurred but estimates of the amounts are not available.

The latest available Department of Commerce data indicate that the U.S. share of the nuclear reactor market (SITC Rev. 1, 711.7) varied widely over the 1973-1977 period. It was 44.4 percent in 1973 and peaked at 73.6 percent in 1975 before declining to 27.3 percent in 1977. Estimates for 1979 show further slippage to about 24 percent. In the market for radioactive and associated materials, (SITC Rev. 1, 515) the U.S. share declined steadily during the period from 58.2 percent in 1973 to 27.8 percent in 1977. An estimate for 1979 indicates a share of about 29 percent. During the period, France, Germany, the United Kingdom, and Canada all sharply increased their exports of radioactive and associated materials while Germany, France and Canada stepped up their sales of nuclear reactors. While it is impossible to apportion the share losses among the various factors, such things as the increased number of countries possessing sophisticated technology, the increased manufacturing capabilities and capacity of competitor countries, differences in technology, and differences in financing arrangements are important factors to be considered along with any potential disincentive effects of U.S. controls.

Private Sector Views

U.S. exporters felt that the U.S. nuclear industry has lost ground to its international competitors since the early 1970's. Responses to the Department's Federal Register notice indicated that U.S. business sees U.S. controls and non-proliferation policies as being more stringent than those faced by their competitors in other countries. While not favoring uncontrolled proliferation of nuclear explosive capabilities, U.S. business

executives often viewed the more stringent U.S. controls as failing to meet the stated objectives because refusal by the United States to grant a license can simply mean that the buyer will go elsewhere to obtain virtually the same equipment. They felt, therefore, the United States loses export sales which could contribute to the health of its economy while failing to achieve its policy objective.

More specifically, U.S. business representatives felt that the climate of uncertainty concerning U.S. nuclear non-proliferation policy and the sometimes extensive licensing delays are unnecessary obstacles to trade. Inadequate or noncompetitive financing, primarily from the Export-Import Bank, also drew criticism from U.S. business. (It should be noted, however, that apart from ascertaining that the potential export has met with all regulations, the Export-Import Bank has no special rules affecting financing of nuclear equipment as such.)

Some U.S. labor organizations stressed their opposition to relaxing U.S. regulations solely for the purpose of stimulating exports. They felt that present controls are acceptable and further the U.S. policy goal of limiting proliferation of nuclear weapons.

Private Sector Suggestions. Suggestions from U.S. exporters for changing U.S. regulations and policies with respect to nuclear exports generally aimed at minimizing the adverse effects and improving the reputation of the United States as a reliable supplier. U.S. labor felt that the reliability of the United States could be enhanced by expanding its nuclear enrichment and reprocessing facilities capacity so that it could safely supply these services to other nations without transferring technologies which may lead to nuclear weapons proliferation. Other, more specific, comments from the business community included:

- the U.S. Government should take a more active role in promoting U.S. industry in the international trade arena. This suggestion is not limited to the nuclear industry but has been mentioned by other U.S. industries as well;

- U.S. agencies should process applications for licenses rapidly, at least meeting their own established timetables;

- the United States should take steps to make certain that the intent of the NNPA to ensure the reliability of the United States as a supplier is unquestioned. Customers should be able to get prompt long-term commitments;

- U.S. regulations which call for stricter controls than the rules of competitor nations should be modified.

Current Status and Continuing Developments

Many of the suggestions for changes in the present laws and regulations governing nuclear exports were based on the perception that U.S. regulations are stricter than those of other countries. If a buyer cannot obtain what he wants from a U.S. supplier, he can simply go elsewhere, because the United States is not in a monopoly position. Essentially, such arguments challenge the effectiveness of the U.S. programs.

The effectiveness of U.S. non-proliferation policy in slowing the process of proliferation, insofar as it has depended on export restraint, stems from two inter-related sources: (a) the degree to which the control of U.S. nuclear exports has denied the technical means of proliferation to threshold states; and (b) the degree to which the United States has persuaded other exporters to exercise similar controls. U.S. policy has made the process of acquiring sensitive nuclear technology more expensive, tedious, and politically risky. The multilateralization of nuclear export controls has reinforced the moral and political opprobrium attached to the pursuit of weapons-related technologies.

More stringent unilateral controls are useful, inter alia, as an interim measure while the United States works to encourage other nuclear suppliers to adopt more stringent policies and controls. Non-proliferation is not a short-term policy, and insufficient time has elapsed since the passage of the NNPA for a comprehensive assessment of U.S. policies in inducing a toughening of controls imposed by all other supplier nations. But there has been some success.

Export control policies as embodied in the NNPA and related legislation, regulatory procedures, and executive actions have contributed to a system of international monitoring, inspection, and control that has been remarkably successful in preventing the military exploitation of nuclear technology. The IAEA's safeguard system has gained wide international acceptance and has become a key instrument for verifying that U.S. and other suppliers' nuclear exports are being used exclusively for peaceful purposes.

The recently-concluded International Nuclear Fuel Cycle Evaluation (INFCE) was a two-year effort directed toward the development of a greater degree of agreement regarding the technical, economic and resource considerations involved in fuel cycle decisions. Over 50 nations participated in this evaluation, the technical aspects of which should make possible future harmonization of nuclear policies among supplier and consumer nations.

There have been some recent improvements in implementing the provisions of the NNPA intended to enhance the United States' reliability as a supplier of nuclear materials and equipment to nations with good non-proliferation credentials. For example, the United States now will provide multiple fuel reload licenses for most of its principal trading partners. This recent change in licensing practices eliminates the burdensome and costly process that countries with good non-proliferation credentials had to go through each time a fuel load was needed for a reactor. In addition, the requirement for a separate retransfer authorization has been eliminated for those cases in which the retransfer was foreseen and approved in the license issued by the NRC.

Further, generic procedures have been instituted to provide quick licensing for components for most reactors abroad. In March 1980, the rules governing the issuance of general licenses were liberalized to include exports of minor quantities of nuclear materials, and to enlarge the number of eligible countries. In June 1980, Commerce's Commodity Control List for dual-use items was reviewed and updated and new procedures have been instituted allowing liberalized licensing for states with good non-proliferation credentials.

The U.S. Government is continuing its effort to seek multilateral support for non-proliferation controls across the board and has been successful to date on a case-by-case basis in removing foreign availability when the United States has decided to deny an export.

SHORT SUPPLY EXPORT CONTROLS

Definition of the Potential Disincentive

The Export Administration Act of 1979 provides for controls "where necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of foreign demand." (Section 3(2)(C)). The authority, when exercised, affects only specific commodities or products.

When short supply export controls are imposed, the purpose is either to monitor closely export levels or to limit exports of a specific commodity. When quantitative limitations are imposed on exports, they constitute a temporary restriction on the market and, as such, may be distinguished from permanent regulations which continuously inhibit and increase the cost of exporting.

In addition to the discretionary authority to impose short supply controls contained in Section 3(2)(C), the Export Administration Act also mandates permanent controls over certain domestically-produced crude oil (Section 7(d)), certain refined petroleum products (Section 7(e)), certain unprocessed western red cedar (Section 7(i)), and horses when exported by sea (Section 7(j)). Provisions of several other statutes also provide mandatory or discretionary authority for controlling exports of petroleum and petroleum commodities.

Statutory Authority and Policy Objectives

Laws. Authority to control exports for short supply purposes has been in effect since World War II. Short supply controls were necessary immediately following the war because of a shortage of critical items such as steel, chemicals, and drugs in a war-devastated world. Additionally, national policy dictated the channelling of goods for the rehabilitation of friendly countries.

Specific authority to control exports of petroleum was first enacted during the Arab Oil Embargo of 1973-74 and additional authority has been provided in subsequent years as the worldwide energy problem has intensified. Authority to control the export of horses by sea was first enacted in 1977 to prevent the export of horses under inhumane conditions; while export limitations on unprocessed western red cedar were enacted in 1979 to encourage the processing of such timber by domestic sawmills and its export as finished lumber rather than in log form.

Pertinent laws and regulations include: Export Administration Act of 1979, Sections 3(2)(C) and 7 (P.L. 96-72); Export Administration Regulations (15 C.F.R. 377); Mineral Leasing Act of 1920, Section 28(u), as amended by

Trans-Alaskan Pipeline Authorization Act of 1973; (P.L. 93-15); Energy Policy and Conservation Act of 1975, Section 103 (P.L. 94-163); Naval Petroleum Reserve Production Act of 1976, Section 201(11)(e) (P.L. 94-258); and the Outer Continental Shelf Lands Act Amendments of 1978, Section 28 (P.L. 95-372).

Policy Objectives. Section 3(2)(C) of the Export Administration Act of 1979 sets forth the policy objectives with respect to short supply export controls. Exports of goods may be restricted where necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the inflationary impact of foreign demand.

Both of these criteria must be met before controls are warranted. Because of the requirement in Section 7(b) that controls should be imposed in a timely manner, weighing the volume of exports in relation to domestic supply and evaluating the extent to which exports impact on domestic prices requires difficult assessments of future trends. Thus, administration of the Act involves substantial discretionary judgment, which must usually be exercised in the face of sharp disagreement among affected economic sectors as to whether the criteria have been satisfied.

Administration of Controls

Experience with Short Supply Controls. Short supply controls have generally not involved an embargo of exports, but rather the setting of export quotas at or slightly beneath export levels of recent years, with individual country quotas established according to recent export patterns. Short supply export controls have generally been used only for basic materials. The export of commodities manufactured from those materials, containing the value added component of the manufacturing process, has usually been permitted without restriction.

Commodities subject to short supply export limitations during the last ten years have included copper, nickel, ferrous scrap, cattlehides, soybeans and cottonseed and the meal thereof, inedible tallow, and petroleum and petroleum energy products. Except for petroleum and petroleum products, no other commodities are presently subject to quantitative restrictions on exports for reasons of short supply, although export quotas are in effect on unprocessed western red cedar as required by Section 7(i) of the Export Administration Act of 1979.

When imposed, short supply export limitations have generally been effective in furthering their objectives of assuring an adequate supply of the controlled commodities for domestic use and in mitigating the inflationary impact of exports. However, the use of quantitative export limitations inevitably raises questions as to the reliability of the United States as a supplier for particular export markets. This is a legitimate issue and is considered when contemplating possible restrictions. Nevertheless, with the possible exception of the 1973 soybean controls, where the evidence is inconclusive, the past use of short supply controls has had no apparent lasting impact on either domestic production or exports of the controlled commodities. In nearly all past instances the United States has been the world's largest or only important supplier of the controlled commodities and significant alternative sources simply have not existed.

Private Sector Views and Suggestions

There was little evidence to suggest that there is even minimal opposition to the existence of legislative authority to impose export controls for short supply purposes. However, policy disputes invariably surface when actual export controls are contemplated. Agricultural interests strongly opposed restrictions on agricultural exports. Their position was that free markets would best ensure adequate supplies, that farm exports contribute significantly to the trade posture of the United States, and that restrictions can impair confidence in the United States as a reliable supplier. Organized labor interests supported the short supply objectives of the Export Administration Act. They strongly urged that the export of goods in short supply be stringently controlled in order to protect the economy from an inflationary impact. The Federal Register (45 F.R. 28387, April 29, 1980) request for comments did not elicit any suggestions concerning short supply export controls.

Current Status and Continuing Development

The Export Administration Act of 1979 reaffirmed the long-standing policy objectives of protecting the economy from the excessive drain of scarce materials and inflationary impact. Short supply export controls are administered by the Office of Export Administration (OEA) of the Department of Commerce. In assessing the need for, or implementation of controls, OEA consults with other government agencies and considers fully the views of groups affected by the proposed controls. In appropriate cases, public hearings are held and public comments are invited. Implementation of the short supply control function necessarily involves seeking a balance between the policy objectives of unhampered exports and the avoidance of scarcity and inflationary conditions.

RESTRICTIONS ON EXPORTS OF HAZARDOUS SUBSTANCES

Definition of the Potential Disincentive

Limitations on the production, sale or use of hazardous substances may prohibit some exports and may discourage others.

Statutory Authority and Policy Objectives

Over the years the U.S. Government has enacted a variety of legislation and established regulations concerning the production, sale or use of products that may be harmful to consumers, workers, or the environment. These products range from certain drugs and cosmetics to some toys and pesticides. While these statutes address themselves principally to the concern of domestic protection, some contain provisions relating to the export of non-complying regulated products.

At present, more than a dozen laws have a direct or closely related effect on hazardous substances exports. Their effect varies substantially from law to law. Through them the export of some products, like unapproved new drugs, is prohibited entirely. Other products, such as flammable fabrics, may be exported as long as they are produced and labeled for export only. Still others, like electronic products not conforming to domestic standards, must, in addition to labeling for export, meet all the applicable requirements of the foreign country. Finally, some products, like medical devices not conforming to performance standards, also require determination that exportation is not contrary to public health and safety, and approval of the importing country. (A listing of the statutes affecting the export of hazardous substances is provided in Appendix F.)

Some observers believe that these controls are a disincentive to exporting, particularly where export is prohibited altogether. Where items are available without similar restrictions from other sources, U.S. restrictions may serve to discourage trade in U.S. products to the advantage of unregulated foreign competition. Disincentives may exist where the costs of complying with domestic regulations raise the production and export price and thereby reduce international price competitiveness. Procedures for compliance may also be time-consuming or burdensome, leading some companies to conclude that it is not worthwhile to export.

Others believe, however, that controls are necessary and appropriate for the long-term protection of U.S. commercial and foreign policy interests. Inadequate controls of exports of hazardous products could undermine the confidence of foreign buyers in U.S. products. Additionally, the unrestrained sale of hazardous products abroad could impair U.S. relations with our trading partners. International bodies such as the UN General Assembly, as well as individual foreign countries, have expressed considerable concern over the issue of hazardous substances exports. In addition, while products exported might not be permitted for sale in the United States, Americans might still be affected indirectly -- through reimportation of the original substances or their traces or derivatives, or through transport of the substances back to this country via the air or oceans.

In an effort to balance these viewpoints, an Interagency Working Group on a Hazardous Substances Export Policy (HSEP) was formed two years ago, in the wake of the controversy over the continued export of TRIS-treated children's sleepwear long after domestic sales were banned. Chaired by Esther Peterson, Special Assistant to the President for Consumer Affairs, the 24-agency working group has sought to develop a consistent export policy for products generating health, safety and environmental problems.

The Working Group has agreed upon the basic considerations that should be taken into account in developing a policy to govern the export of hazardous products:

- As a nation exporting banned or significantly restricted hazardous substances, the United States has a moral obligation to recognize and assist in controlling the potential effects of these substances on the health and safety of citizens abroad and on the world environment.

- Nations differ substantially in their economic and cultural conditions and in their use of, and need for, hazardous substances. It is difficult for one nation to make decisions on the acceptability of risks for another nation. Such assessments require extensive information regarding economic, political, and social conditions which U.S. regulatory agencies do not have and cannot readily obtain.

- U.S. relations with other countries could be harmed by unrestrained export of substances which are banned or significantly restricted in the United States.

- The unrestrained export of hazardous products could undermine confidence of foreign buyers in U.S.-made goods, and could jeopardize their sale abroad.

- Excessively restrictive limitations on the export of products which a foreign country may decide it needs could place U.S. firms at a competitive disadvantage and harm U.S. relations with the government of that country.

- Excessively restrictive limitations could place significant economic burdens on the U.S. economy, including adverse effects on the balance of trade and payments, on output and jobs, and perhaps on domestic competition (if smaller firms suffer disproportionately from reduced ability to compete in foreign markets).

- An export policy should be administratively simple and inexpensive to implement, and should recognize the complexities of international commerce.

- The United States should encourage and participate actively in international initiatives to develop consistent policies for hazardous substance exports, and for the sharing of data, analysis, and information. The effectiveness of unilateral United States action could be substantially diminished if foreign facilities or firms were to become alternative suppliers of substances which U.S. policies seek to control.

- The United States should attempt to protect American citizens against the dangers to their health and safety of importing hazardous substances and their derivatives or residues, and of damage to the world environment.

In its effort to develop a more consistent hazardous substances export policy, the Working Group is endeavoring to balance these considerations appropriately and to avoid unnecessary impediments to U.S. export sales.

Administration of Regulations

The administration of regulations regarding hazardous substances exports is vested in a number of different agencies. While the Food and Drug Administration, for example, administers most drugs and cosmetics, the Drug Enforcement Administration handles narcotics and dangerous drugs; the Consumer Product Safety Commission administers consumer goods, while

pesticides, chemical substances and chemical wastes are handled by the Environmental Protection Agency. In addition, agencies such as the Department of Commerce, the Agency for International Development and the Export-Import Bank also have guidelines and authority that may pertain to the export of hazardous substances. (For elaboration on regulatory authority, please refer to Appendix F.)

This dispersed authority and, most importantly, differences in underlying statutes, has sometimes resulted in inconsistencies and disparities in policies regarding exports. It is often not readily apparent why one domestically-banned product may be exported (e.g., certain flammable fabrics), while another product, termed hazardous but regulated by a different agency, requires approval of the importing country (e.g., non-complying medical devices).

While there is clearly no rationale for merging the various administering agencies into one authority for the sake of achieving consistency in export policy, there is strong justification for developing an overall approach that would bring more consistency and order to the efforts of the agencies involved. This has been one of the principles under which the HSEP Working Group has been operating.

Efforts of the HSEP Working Group. In its effort to develop a more consistent, more effective Federal policy regarding exports of substances which are banned or significantly restricted in the United States, the HSEP Working Group has reached a general agreement on desirable elements for a hazardous substances export policy. These elements deal with matters of definition, reporting, notification, exercise of controls, and international cooperation.

Definition -- The policy would cover substances which are banned or significantly restricted in the United States. This would include a pesticide, chemical, food, (including meat products or poultry), food additive, drug, cosmetic, medical device, electronic product or consumer product for which a Federal agency has taken any of the following types of regulatory actions in order to protect against actual or potential threat to health or safety of the United States public or to the environment:

- Final rulemaking or adjudicatory action (including emergency or interim binding action) which denies or revokes approval for, or prohibits, the manufacture, production, use or sale in the United States;

- Final rulemaking or adjudicatory action (including emergency or interim binding action) which prohibits or revokes approval of most significant uses in the United States;

- Withholding or absence of registration or approval for any substance for which Federal law requires Federal Agency registration or approval before manufacture, production, use, sale or disposal in the United States.

To avoid any ambiguities the Group has developed a specific definition which identifies the products subject to the policy by referring to specific provisions of specific statutes.

Annual report -- An annual summary of U.S. regulatory actions taken during the course of the year which ban or significantly restrict hazardous substances for domestic use would be published. Also included would be summaries of important pending regulator, actions and additional information on both final and proposed action.

The report would be an up-to-date compilation of U.S. regulatory actions concerning hazardous substances of interest to the world community, apprising foreign governments of regulatory actions recently taken as well as prospective regulatory actions. Furnished with this information, a foreign government could take whatever regulatory actions it deemed appropriate, at the same time the U.S. regulatory action takes place. The summary could also be used as a "hazard alert" for foreign governments for products that they may be importing from other countries. Many foreign countries have expressed a strong desire to obtain information about the hazardous properties of imports that may have been identified by others but are not known to the importing countries, so that they may make wise decisions about those imports.

Notification procedures -- While several recent laws require notification of the importing country, either tied to first shipment in a given year or to actual shipment, for most of the categories of substances under the policy's definition, the notification requirements differ in terms of timing, frequency and content of the notice. Moreover, most of the relevant laws are relatively new, making it difficult at the present time for the Working Group to recommend a test scheme for notification.

The Group does believe, however, that notification of shipment should regularly occur through the State Department, and that State should be responsible for forwarding the notification to the appropriate government officials of the country of destination and to the U.S. embassy in the country. This would not preclude the U.S. regulatory agency responsible for the notification from making direct contact with foreign government officials; in the case of some laws, agencies are required to make this notification. With a more uniform notification procedure, the Working Group believes the likelihood will be greater that the notification will end up in the right hands of the foreign government.

Use of export controls -- For a relatively small number of substances, which because of the severe degree and nature of the hazard they entail could pose serious foreign policy problems for the United States, the Working Group proposes that export controls be applied under the foreign policy control provisions of the Export Administration Act of 1979 (EAA). To be subject to such controls, the EAA would require that the substances be identified by the Secretary of State with the concurrence of the Secretary of Commerce for inclusion on the Commodity Control List (CCL). To facilitate this process, the State Department would chair an interagency task force, which would include the relevant regulatory and environmental agencies, to consider which of these substances should be recommended as candidates for the CCL.

Once a hazardous substance had been placed on the CCL, an exporter would have to apply to the Commerce Department for a validated license to export that substance. In deciding whether to approve individual license applications, the Department of Commerce would, in accordance with the EAA, consider whether denial of the license would "further significantly the foreign policy of the United States." Consideration would also be given to, among others, the following factors:

The type, extent, and severity of the risk posed by the substance;

The likelihood of its having detrimental effects;

The destination of the proposed export;

The use to which the export substance was intended to be put;

The benefits to be gained by the export;

The availability of similar non-hazardous alternatives;

The views of the importing country, the Congress, and industry representatives; and

The ability of the importing country to mitigate or avoid harmful effects.

It is anticipated that relatively few substances would be added to the CCL or ultimately be denied export.

International cooperation -- The Government would work to encourage international development of worldwide hazard alert systems, export notification programs, uniform hazard labeling, clearinghouses for information on health and safety risks, and common standards and practices regarding the export of hazardous substances. The United States has been participating in international efforts to deal with the hazardous substances situation through the UN General Assembly, the UN Environment Program and the Organization for Economic Cooperation and Development. In addition, on-going technical assistance programs would focus on helping developing countries establish adequate standards for health and safety, competent regulation, and effective use of hazard information.

The HSEP Working Group is presently engaged in the preparation and refining of its final draft report. The final report is expected to be completed by the end of the summer.

Effects on Exports

Under present laws and regulations U.S. exporters of potentially hazardous goods may incur higher production costs in complying with U.S. health and safety standards, and these costs may contribute to making U.S. exports less competitive in world markets. Additionally, U.S. laws and regulations may create specific costs associated with production for export, i.e., special labeling, securing preliminary requests or consent from purchasing nations that discourage some manufacturers from engaging in export sales.

Other effects on exports depend largely on the type of product exported. The loss of exports resulting from the prohibition on exports of drugs not approved for sale in the United States is an example of potentially significant export costs. In some instances diseases are specific to areas of the world outside the United States; but in order for a U.S. company to supply drugs for treatment of these diseases, the firm must secure Food and Drug Administration approval to sell the drugs in the United States -- a relatively time-consuming and costly process. In some cases, U.S. firms have established or expanded production plants abroad to avoid the costs and delays.

On the other hand, the argument for U.S. Government controls over exports of drugs is strong, since uncontrolled marketing of U.S.-made drugs could pose serious damage to public health abroad and could affect foreign buyer confidence in U.S. products and impair U.S. relations with other countries. Current problems with labeling of U.S.-made drugs sold abroad (such labeling is not now regulated) illustrate the dangers.

The economic effects on exports of regulating hazardous substances are difficult to determine. In cases where the product can be freely exported (e.g., cosmetics) as long as it is produced solely for export and satisfies the laws of the foreign country, the impact of the regulation is probably insignificant. On the other hand, some exporters feel that the provision in a number of statutes which requires export products to meet U.S. standards if the product is also available for the U.S. market may have a significant negative impact on exports. Similarly, in the case of drugs, where the product must meet U.S. standards regardless of availability or even need in the U.S. market, companies believe that loss of export sales is probably significant.

Private Sector Views

Private sector views on exports of hazardous substances as expressed in response to the Federal Register notice, at a conference held with representatives of labor unions, and from other input, ranged from support of the status quo to need for change, and from product-specific complaints to general comments.

Exporters contended that other governments do not impose legal restrictions on the export of hazardous substances to the extent the United States does, which merely allows importing countries to obtain the products from other sources. The case of FDA prohibition on exports of all unapproved new drugs was most frequently cited, along with the notation that no other major drug-producing country bans such exports as long as the drug is not in conflict with the laws of the importing country. Business representatives asserted that many foreign countries have adequate registration and regulation procedures of their own. They argued that, particularly in the case of drugs, the exportation is more appropriately governed by the laws of the importing country.

Business representatives also commented on the cost effects on exports of complying with domestic regulations. High costs of compliance were cited as reasons for establishing or expanding manufacturing plants abroad rather than in the United States.

While business views were concerned primarily with the effects of present or proposed regulations and policies on exporting, labor views were concerned with maintaining health and safety standards, both domestic and international. Labor representatives believed that the consumer protection afforded by domestic laws should be available to all citizens, and that U.S. exporters should not be encouraged to avoid social responsibilities when exporting. Further, they voiced concern about potential health hazards to U.S. workers employed in the manufacture of products for export when the production of these is banned for use in the United States.

It should be noted that no comments were received through this process from consumer, environmental and health groups. However, in consultation meetings held by the HSEP Working Group, organizations of these types generally expressed strong support for continued constraints on hazardous substances exports, and in many cases urged that the constraints be considerably strengthened.

Business Suggestions. Several of the views contained suggestions which some exporters felt would minimize the negative effects of present laws and regulations on their international business. The following are representative of these suggestions:

- Permit the export of human drugs not approved by the FDA if they: are labeled export; accord to the specifications of the foreign purchaser. are not in conflict with the laws of the importing country; and are not sold or offered for sale in the United States.

- Undertake a review and analysis (by either the HSEP Working Group or any other task force on export policy) of not only the various agency export statutes but also the nature of the incentives and the disincentives to export under current law and prospective changes. The group should suggest what changes, if any, should be made in the individual laws.

Current Status and Continuing Developments

In February 1980, a bill (H.R. 6587) was introduced to amend the Export Administration Act of 1979 to restrict the export of hazardous substances. As originally written, the bill would prohibit the export of products whose sale is regulated under the various domestic laws, unless it is permissible to sell the products in the United States. In addition, no product could be exported if its sale domestically was subject to registration, licensing, or use requirements imposed by various laws, unless the sale of the good in the importing country is subject to restrictions comparable to those in the United States. As exceptions to these provisions, export licenses could be issued on a limited basis if both the Secretary of Commerce and the head of the agency limiting the substance concurred, once a variety of criteria were met, including proof that the government of the importing country had requested the product; that the applicant had fully informed the government and consignee involved; and that the potential benefits of the intended regulation outweighed the possible hazards. This regulation would also pertain to exporting an ingredient of a hazardous product, and all of these exports must adhere to U.S. labeling requirements.

New requirements may entail additional manpower and paperwork, which may create an additional cost burden to the exporter and to the federal government. As an example, and considering only the administrative issues, the initial version of H.R. 6587 could create a number of procedural and administrative difficulties. It would require active intervention by both the U.S. and foreign government involved in each regulated export sale. Under the bill's provisions, administration of export controls would become more complex, given that approval of an export license would require the concurrence of the Secretary of Commerce and the regulatory agency.

Administration Actions -- Past, Present and Future. The Administration has encouraged the efforts of the HSEP Working Group to develop a consistent approach to dealing with hazardous substances exports. At the same time, it has sought to ensure that the measures proposed by the Working Group not create any additional unnecessary disincentives to exports. The fact that the Working Group has labored for two years and has revised its report at least five times is an indication of the serious intent of the Administration to avoid placing unnecessary burdens on exports. Initially proposed measures have been modified and reworked during the past two years to encompass only those deemed essential for the control of more clearly defined hazardous substance exports.

To ensure adequate opportunity for private sector input into the policy formulation process, USTR and the Commerce Department sponsored a meeting on July 15 between certain industry, agriculture and labor interests and the Office of Consumer Affairs and CEQ to discuss the draft HSEP. A number of comments were made and concerns expressed about the draft policy. OCA and CEQ have indicated that any legitimate concerns and comments expressed by these potentially impacted interests will be considered before the policy is made final.

Concurrent with the development of the Hazardous Substances Export Policy, the Administration will continue to work with U.S. exporters and Congress to ensure that actions taken under the policies are balanced and consistent with national objectives of consumer health and safety, environmental protection and export expansion, as well as relevant foreign policy considerations. The Administration will also continue to pursue, through multilateral and unilateral channels, better international cooperation, understanding and education regarding the sale, use and export of hazardous substances in and to all countries.

CHAPTER 8. TAXATION OF FOREIGN EARNED INCOME

Definition of the Potential Disincentive

The United States is the only major industrialized country which taxes on the basis of citizenship as opposed to residence or domicile. From the first Revenue Act of 1913, American citizens, wherever residing, have been taxed on their worldwide income. They have been allowed, since 1918, a credit for foreign income taxes paid. The Task Force on Taxation of the President's Export Council, reflecting views widely held in the business community, reported on December 5, 1979 that the difference in tax treatment between American citizens working overseas and their counterparts from competing industrial nations is discouraging many Americans from taking foreign assignments and encouraging their replacement by citizens of other countries.

Our major trading partners exempt from taxation all or many of their nationals who reside abroad. Therefore, the U.S. tax liability of Americans working overseas often makes it more costly to hire Americans. It is argued that U.S. companies which, nevertheless, choose to hire Americans because of their technical expertise and reliability, risk losing contracts for overseas projects because of the higher compensation costs, and U.S. exports are lost. If U.S. companies hire nationals of other countries instead of Americans they may gain the contracts, but the valuable follow-up exports of capital equipment and replacement parts is often lost, because foreign nationals tend to specify more familiar foreign products and suppliers.

In adopting the Task Force report, the President's Export Council stressed the need to eliminate the preeminence of tax considerations in management decisions whether to employ Americans or non-Americans in overseas positions. The United States competes abroad through private sector companies whose employment decisions should not be determined by tax considerations.

The impact of the current method of taxing overseas Americans is most frequently identified as critical for personnel of U.S. engineering and construction firms competing for contracts in developing nations. Personnel of U.S.-controlled foreign subsidiaries also report adverse effects, as do Americans throughout the world who influence foreign procurement decisions, or perform after-sales services. A variety of foreign operations by American companies tends to create exports from the United States; some U.S. companies feel they can be more successful in these beneficial foreign operations if they are able to use American employees rather than foreign employees without having U.S. tax laws make this practice more costly for them.

Statutory Authority and Policy Objectives

This section describes the changes in the amount of foreign earned income which could be excluded from U.S. taxable income. The primary objective of the successive reductions in the value of the exclusion has generally been to reduce disparities between resident and nonresident U.S. taxpayers, and to prevent abuses. The most recent change, in 1978, replaced the exclusion, for most Americans overseas, with a series of deductions for added living costs. This change reflected the view that in many cases added compensation for

overseas employment did not result in real economic preferences for work abroad, but was necessary to offset the very high costs and adverse circumstances encountered overseas.

In 1926, concerned that worldwide taxation of American citizens was impairing the ability of their U.S. employers to compete abroad, Congress passed the "earned income exclusion." The Revenue Act of 1926 allowed a U.S. citizen who lived outside the United States for more than six months to exclude from his taxable income all income earned while resident abroad. (P.L. 69-20, Sec. 213(b)(14).) In 1942 Congress limited eligibility for the earned income exclusion to those Americans who could show a "bona fide" residence in a foreign country for an entire tax year. Congress again amended the eligibility requirements in 1951, extending eligibility for the foreign earned income exclusion to include Americans who could establish that they had been physically present in a foreign country for 17 out of 18 consecutive months.

In 1953, primarily in response to abuses of certain entertainers and others living abroad, Congress established a limit on the amount of the earned income exclusion -- for the first time since its inception in 1926. Persons eligible by virtue of their physical presence in a foreign country could exclude from U.S. taxation up to $20,000 of the income they earned while abroad. Bona fide residents of foreign countries remained eligible for the unlimited exclusion.

The Revenue Act of 1962 limited the foreign earned income exclusion to $20,000 a year for the first three years of bona fide foreign residence and $35,000 a year thereafter. In 1964, the $35,000 maximum exclusion was reduced to $25,000. A $20,000 ceiling was maintained for bona fide foreign residents of three years or less and Americans present abroad for 17 out of 18 consecutive months.

Despite these limits, Americans employed abroad during the 1950's and 1960's were generally exempt from U.S. taxation because the $25,000 maximum exclusion was greater than the typical salary of an American engineer, manager, or sales representative. During the 1960's and early 1970's, salaries increased with inflation and the overseas allowances paid by employers to compensate for high foreign living costs rose even faster; in many cases the $20,000 or $25,000 exclusion was less than amounts received by Americans for foreign employment. Income above the excludable amount remained subject to U.S. tax at lower rate brackets, however, and foreign taxes paid could be credited dollar-for-dollar against the remaining non-exempt portion of foreign income.

The tax treatment of many overseas Americans was affected by several Tax Court decisions in 1976 holding that allowances provided by employers for housing, schooling and non-business travel are includable in taxable income. The actual foreign cost of employer-provided housing must, according to these decisions, be claimed as income, rather than the fair market value of

comparable housing in the United States.

Significant changes in the tax treatment of U.S. citizens employed abroad were also made by Congress in the Tax Reform Act of 1976. In addition to reducing the amount of foreign earned income which overseas Americans could exclude from taxation by the United States to $15,000, the 1976 Act made other changes which reduced the overall tax saving to be derived from the exclusion available under prior law. First, additional income beyond the exempt income was made subject to U.S. tax at the higher rate brackets. Second, foreign taxes paid on the excluded portion could no longer be credited against U.S. tax liability. Third, if payment of the foreign earned income tax were made outside the country where earned, as a method of avoiding taxes in the host country, the benefit of the exclusion could be lost.

The reason given for these provisions of the Tax Reform Act of 1976, as explained by the Joint Committee on Taxation, was that the attention of Congress had been called to the presence of certain unintended consequences of prior law. For example, the allowance of a foreign tax credit for foreign taxes paid on the excluded income enabled the expatriate also to reduce his U.S. taxes on other foreign income. The reason given by the Joint Committee for not completely phasing out the exclusion was "so that the competitive position of U.S. firms abroad is not jeopardized."

The combination of the Tax Court decisions and the Tax Reform Act of 1976 sharply increased the tax liability of many Americans overseas, prompting an intensive campaign for legislative relief. U.S. corporations, competing for engineering and construction work in the oil-rich, low-tax Middle Eastern countries, strongly opposed the new legislation. The principal arguments they presented in defense of preserving or improving the status-quo prior to 1976 were summarized in a report prepared for the Department of Commerce by Mr. Roy Blough entitled, "U.S. Policy Toward Taxation of Foreign Earnings of U.S. Citizens", published in August 1978.

The Conference Committee Report on the 1976 Tax Reform Act indicated an expected revenue gain of $44 million in 1977 and $38 million thereafter as a consequence of these changes in taxation of overseas Americans. A 1976 Treasury study based on 1974 tax returns initially estimated that the changes in Section 911 would contribute annually about $45 million of additional revenue. However, in 1977 Treasury made a further study of the revenue effects of the 1976 changes in expatriate taxation. On the basis of special tabulations of 1975 returns, the Treasury revised its estimate of the increased tax burden on Americans working abroad upward to $318 million, based on the incomes of approximately 150,000 taxpayers, at estimated 1977 income levels. The tax effects of the changes which the Tax Reform Act of 1976 made in expatriate compensation would have been, therefore, much greater than members of Congress anticipated.

Congress responded to the concern that the large and previously unexpected increases were applicable retroactively by passing Public Law 95-30, "The Tax Extension Act of 1977" which postponed the effective date of the Tax Reform Act changes in the earned income exemption to January 1, 1977.

In March 1977, the House Ways and Means Committee Task Force on Foreign Source Income recommended the repeal of the Section 911 exclusion of income earned abroad and its replacement with a deduction for certain educational

expenses, either provided in kind or reimbursed by the employers, and an exclusion of the value of employer-supplied "municipal-type services." The Task Force also recommended that the Section 912 exclusion of all statutory allowances given to civilian employees of the United States Government be replaced.

At the beginning of 1978, the Administration submitted proposed legislation to Congress that would have replaced the Section 911 earned income exclusion with a new system of deductions for certain expenses incurred for housing, education and home leave travel. The Administration proposal would have also broadened the conditions under which housing and meals furnished in a camp or barracks or similar compound would be excludable from income, provided they were furnished in the general vicinity of the business premises of the employer or in a place where adequate alternative meals and lodging were not available. The Administration's proposal was generally overtaken by a series of more liberal bills introduced during the 2nd session of the 95th Congress, a composite of which provided the substance of the Foreign Earned Income Act of 1978.

In 1978, the current law was enacted . It eliminated the general exclusion from income previously allowed. A $20,000 exclusion was provided for those living in remote camps, subject to several restrictions. For other U.S. citizens abroad, a system of special deductions for extraordinary expenses was instituted. A summary of these provisions appears in Annex A to this chapter.

Administration of Policies and Law

On May 9, 1979, the Treasury issued proposed regulations to implement the Foreign Earned Income Act of 1978. A public hearing on the regulations was held on August 28, 1979.

The general view of the overseas business community was that the proposed regulations governing the Section 911 "camp exclusion" were too restrictive. In December 1979 the Task Force on Taxation of the President's Export Council made the following recommendations regarding the proposed regulations implementing the Foreign Earned Income Act of 1978:

> "Regulations and interpretations in force under the current tax law concerning Americans living in camps in hardship areas (Section 911) should be simplified and made less restrictive, in keeping with the intent of Congress."
>
> "The current tax law concerning allowances to employees for excess living costs incurred while living abroad (Section 912) should be interpreted in the least restrictive and simplest manner."

Treasury modified important elements of the Section 911 regulations in response to industry criticisms and December 31, 1979 issued them as temporary and proposed regulations. The Internal Revenue Service and Treasury Department are, at present, reviewing [illegible] and proposed regulations under Section 911 and Section 912. With the benefit of substantial written and oral public comments, this [illegible] seek to assure that the final regulations are consistent with the legislative changes enacted by the Congress in 1978.

Taxation of Foreign Earned Income ---International Comparison

The expatriate taxation systems of our major trading partners are summarized in Annex B (to this chapter) from an analysis of foreign laws which Treasury published in a January 24, 1980 study, Equitable Treatment of Americans Living Abroad. A comparison of the tax systems of Canada, France, Germany, Japan, Britain with the United States' system of expatriate taxation reveals the United States to be unique in generally taxing the foreign earned income of its non-resident citizens. Other countries often tax foreign earned incomes of individuals who have their domicile at home. However, they typically provide special tax relief to those who work abroad. For example, when a Japanese works outside the country but retains a domicle in Japan, he is not taxed on the special allowances paid him to compensate for higher price levels abroad or to compensate for extra costs incurred to maintain his living standard. In some cases, this relief, as in the U.S. approach, removes from the tax base extra costs incurred abroad. Special exemptions are often provided for certain occupations and locations.

Evidence of the Export Disincentive

Summary of Private Sector Views. The rationale for the current system of taxing foreign earned income by the United States is little understood and accepted by U.S. exporters. Their views, as expressed by responses to the April 1980 Federal Register request (45 Fed. Reg. 28,387 (1980)) by the International Trade Administration for information on export promotion and potential export disincentives and the Taxation Conference held by the Department of Commerce, indicate that the complexity of the present system of taxing Americans working overseas and its differential impact (which depends on individual income level, allowances claimed and characteristics of the foreign system of taxation) is perceived as contradictory to an avowed export promotion policy. Public comments and submissions reveal that overseas Americans, as well as U.S. companies which employ them, do not envision the problem of expatriate taxation as one of tax equity between Americans working at home and abroad. For them, the paramount issue is equity with their foreign counterparts, who are unmistakably provided with a tax incentive to work abroad, because they are generally not taxed by their home country on their income earned while resident abroad.

Private sector responses indicate that the present method of taxing overseas Americans has a significant adverse impact on their overseas business operations, affecting their revenues, exports and employment. American companies indicate that the extra tax burden which their overseas American employers encounter produces the following adverse consequences.

- American companies lose contracts because the added tax-equalization costs either make them non-competitive or the absence of American representatives and marketing personnel in key markets hinders the effort to identify and clinch export opportunities.

- U.S. service companies which are able to replace Americans with locals or third country nationals are able to submit competitive bids and win overseas contracts. However, the reduced presence of American managers and engineers affects procurement and specification policies for the overseas project, and limits the potential for a

large amount of U.S. follow-on equipment and materials which are used to complete the project. Non-American managers and engineers are not as likely to be familiar with and as inclined to use, American specifications, materials and equipment.

- When U.S. firms lose business abroad, because they employ Americans and factor tax equalizations costs in their bids and prices, jobs and tax revenues are lost. The loss of merchandise exports which are customarily associated with the performance of services abroad means additional lost domestic profits, employment and tax revenues.

- As indicated by the March 1972 U.S. Department of Commerce study entitled, "Policy Aspects of Foreign Investment by U.S. Multinatonal Corporations," nearly one-fourth of total U.S. exports were purchased by the foreign subsidiaries (and affiliates) of U.S. corporations. The reduction of American working for U.S. manufacturing subsidiaries abroad may reduce this "pull through" effect on U.S. exports.

- American companies operating abroad sometimes acquire or develop valuable technology in the course of their foreign operations. If this technology is in the hands of foreign employees, it is more likely to be lost as these employees move to foreign-owned companies than would be the case if the technology is in the hands of the American employees.

Comment received from trade associations, companies and individuals indicates that the tax treatment of overseas Americans is perceived by the U.S. business community as a major disincentive to international competitiveness. Expatriate taxation was by far the item most frequently identified as an export disincentive in the responses to the April 29 request of the International Trade Administration for information on export promotion and potential disincentives to exports (45 Fed. Reg. 28,387 (1980)).

Many have criticized the current law because it imposes burdensome record keeping and substantiation requirements on both expatriate taxpayers and their employers, resulting in additional fees for professional services and greater auditing complexities. The six separate steps which are needed to calculate the housing deduction are described in Annex C to this chapter. The present system has also been criticized as providing a much smaller overall tax benefit than the actual expenses incurred by or on behalf of the taxpayer for these costs.

Numerous trade organizations and companies have expressed the view that the recent changes in the method of taxing overseas Americans constitutes an impediment to their export effort. A survey of U.S. corporate executives, undertaken by the International Management and Development Institute, identifies Sections 911-913 as the number one disincentive to "keeping competitive in the world market place." The U.S. and Overseas Tax Fairness Committee, an organization of [illegible] leading members of the National Constructor's Association, Consulting Engineers Council, and other construction and engineering trade associations, has [illegible] cited cases of withdrawal of American engineers, project managers [illegible] personnel from overseas assignments and their replacement with foreign nationals.

The most strongly argued point in favor of employment of U.S. citizens abroad concerns the impact Americans have on the export of U.S. goods and services, by influencing the purchase of machinery, equipment, and professional services. Persons in positions to exercise such influence include, among others, those engaged in wholesale and retail distribution of imported goods, consultants and advisers to governments, and employees of foreign corporations. Proponents of this view stress the influential role of engineering and construction contractors and advisors on projects requiring machinery, equipment and supplies not available in the host country. The specification or direction of purchases from the United States gives export opportunities to U.S. businesses. They also point out that Americans who are not engaged in export-related activities may nonetheless improve U.S. economic relations by increasing familiarity with U.S. life style, goods and technology.

A number of private companies responding to the April 29, 1980 request of the International Trade Administration for information on export disincentives reported that there is a connection between overseas development projects and U.S. exports. The following examples are illustrative of these responses:

-- The Guy F. Atkinson Company of San Francisco, which undertakes major overseas engineering and construction projects, such as highways, tunnels, dams and powerhouses, has studied the procurement history of its overseas projects from 1961 to 1978. Total purchases in the U.S. of plant, equipment, spare parts, tires, supplies, U.S. payroll returned to U.S., home office charges against the projects, and profits returned after payment of foreign income taxes totalled $563,840,000 or 37.4% of total project revenue gained from 18 heavy construction projects which typify the kinds of projects many U.S. contractors compete for overseas. The Guy F. Atkinson company concluded in its analysis that "for every dollar of contract value (sales) somewhere between 35% and 45% of that value returns to the United States in U.S. dollars."

-- A study submitted by the Associated General Contractors reviews the contract value and equipment purchases of numerous international construction contracts. It estimates that a minimum of 50% of overseas contract value is directly brought back into the U.S. economy to pay for U.S. merchandise and services. This percentage is reported to apply to most highway and heavy construction as well as some building construction. "For other building construction, the amount returned may be as high as seventy-five percent." Cases of six contractors, which undertook major projects overseas, are submitted to support this contention. One such case illustrates the relation between overseas business and U.S. exports described in the AGC response.

"Contractor A has a total construction volume of Mideast work of $240 million, of which $130-140 million was processed from the middle of 1974 to the end of 1976 (30 months). A total of 10 different construction projects are included in these figures. Of the $140 million, nearly $52 million was allocated for the purchases of U.S. goods and services. Specific purchase amounts ranged from contracts worth $20 million to firms in one state to

a contract worth $1,200 to a firm in another state. Companies in a total of 37 states benefited from this one contractor's volume of work in the Mideast. In addition, another $6.5 million represents salaries paid in the U.S. for Saudi-based employees. In other words, approximately 42% of the total dollar volume of the contract for these 30 months was directly placed back into the U.S. economy."

-- The Ralph M. Parsons Company of Pasadena, California reported that two major construction projects in the Middle East for which they did the engineering and design work overseas prior to 1976 represented $73,850,251 in orders for U.S. equipment placed in 1976 and orders for $11,831,042 worth of U.S. equipment placed in the first quarter of 1977. The total planned purchases of U.S. materials and equipment for the two projects was approximately $254 million as of April 26, 1977.

-- Another U.S. company submitted an analysis of its bids for 25 construction projects for a total of $1.3 billion. These would have required $367,594 worth of goods and services which were to have been purchased in the United States.

-- Consulting Engineers of Kansas City, Missouri which has an engineering and design subsidiary in Saudi Arabia also reported that bids for contracts on the following projects could not be submitted "because of lack of American personnel to do design engineering (in Saudi Arabia)": an $800,000 water and wastewater project, a $280,000 gas turbine design project, and a $1,000,000 project to supply consulting services to an electricity corporation. Consulting Engineers reported that, "Over 90 percent of the non-U.S. consultants will not specify U.S. goods." Therefore, the personnel-related inability to bid on these significant design contracts described above represents an important loss of U.S. material and equipment exports.

-- An American commercial executive, who has travelled widely since the enactment of the Foreign Earned Income Act of 1970 reports that, "American executives such as managing directors, purchasing agents, procurement officers and operating personnel are being replaced by individuals from Europe and the Scandinavian countries. U.S. firms cannot afford to pay the salaries required by U.S. citizens, to make up for the added tax burden or to pay employees a rebate on added taxes over and above what they would pay in taxes if they resided in the U.S." Examples he cites include the following: 1) one of the largest Middle Eastern airlines has recently replaced their U.S. procurement officer with a foreign national. "I had made regular and successful (commercial) contacts with the former officer, however, in calling on the new officer I was informed that I no longer need to call on them."; 2) One of the largest construction companies in the world is a U.S. firm, has recently replaced their American purchasing agent for the area with a U.K. national. "[illegible] in U.S. company of our products have suddenly ceased." The executive reported that he expects difficulties for his firm's export effort. "The task of merchandizing my firm's products will not [illegible] since I won't be dealing with very many, if any Americans."

-- Another U.S. firm based in Boston reports a loss, in the past few years, of four major projects in the Middle East with total engineering fees in excess of $10 million because of the inability to compete financially with British and other foreign companies. "The major element of the difference by far was our need to include tax reimbursement and tax on tax reimbursement for not only salaries but also housing, living and schooling costs."

-- Another U.S. company is a partner with a German joint venturer on a $1.3 billion petrochemical plant, being built in Basrah, Iraq. He writes, "I'm sure taxes had much to do with the Company taking a partner. Twelve to fourteen European and one Pakistani sub-contractors have been hired thus far. I think that if even 50% of that work and of the sub-contractors had been American, that money would have been returned to the American economy. Permanent plant, equipment and material, (has been) about 40% American and the balance from elsewhere, mostly from Germany."

-- Another American company reports having lost a three year old contract in Oman because they were unable to provide American engineers at a competitive price. "Now, with Oman as the center of U.S. military interest, we are not in a position to answer many vital technical questions addressed to us by U.S. Government Defense Agencies because our information on Oman telecommunications is not current."

-- A U.S. consultant to the national telecommunications administration of Indonesia reports that his company has contracted to provide four American engineers for work on a project in Jakarta for the last two years. The contract is now up for renegotiation and expansion into a much larger effort, perhaps $6 million dollars over four years. The client has insisted that American satellite communications engineers continue to be provided. The U.S. consultant states, "We are facing an impossible task to keep the price competitive when we have to take on the tab to pay for our American employees' taxes. Otherwise why should four of the most qualified engineers in satellite communications in the U.S. take their families to live in Jakarta, when they could work very comfortably in Maryland for COMSAT or others and make the same take-home pay?"

-- A director of operations for a U.S. engineering and design company in Nigeria reports that Nigerian companies often prefer to contract with firms using American technicians since most of the Nigerian technicians are now trained in the United States. However, his company has found it difficult to compete on a price basis. He reports that as a result, "our staff, which in 1977 was 35 Americans, now (in 1980) is down to two Americans. American citizens themselves no longer desire to go to Nigeria." He also reports that his company is operating as advisor to the Federal Capital Development Authority which is building the new Federal Capital at Abuja. The capital equipment for the first phase of the project is expected to run close to $36,000,000. The U.S. Director of Nigerian Operations reports, "My inability to recruit American equipment specification personnel

means that British equipment will be specified." He also reports that the company has been forced to hire Englishmen "where we would rather use Americans" on a project undertaken for the Corps of Engineers in the Sinai. "Although the salaries (of Americans) appear substantial at first blush, when the staff calculates the impact of the taxes on their salaries, they find that they will be making less than they're making in the States, on top of which they'll be forced to pay for education of their children." In 1979, ten Americans indicated their intention to resign from overseas position and the company has felt the need to set up permanent recruiting posts in the Far East and England.

-- Evidence of experiences of individual firms operating abroad highlights the relationship between the American companies, which are successful in marketing their technology world-wide, and the export sales of U.S. equipment manufacturers. Much of the information submitted in the course of this study of potential export disincentives suggested that successful U.S. bidders for international contracts have direct control over the selection of facility and equipment suppliers or are likely to be called upon to make recommendations in this area for the client. In either case the likely result is increased U.S. merchandise exports.

-- Many reported cases also indicated that a prerequisite to winning or fulfilling an overseas project is the presence of American technical personnel. A review of individual cases indicates that the inability to maintain one or more Americans in key positions overseas has diminished or impeded the ability of a U.S. company to win and to carry out a contract. Moreover, in reported cases where companies have employed significant numbers of non-American employees and subcontractors to carry out an overseas project, a major factor cited by companies in their decision to employ non-Americans was the cost of equalizing American employees for U.S. taxes as a consequence of the Foreign Earned Income Act of 1978. Many companies reported replacing Americans with foreign nationals largely for tax reasons and notwithstanding management preferences for maintaining an American sales or technical service staff in the field, where contracts are won and procurement decisions are made.

-- The impact of differences between the U.S. and foreign systems for taxing expatriates has been quantified in an analysis undertaken by the Associated General Contractors of America (AGC). The AGC studied a recent unsuccessful bid for a construction project in the $100 million range in Jordan, financed by the World Bank. A contractor using 100 percent British mid-level personnel rather than Americans on this project will experience a cost savings of 2.8%, an amount which could exceed expected profit. The AGC reported that "margins of this size are often the difference between an award (and a lost contract) and that it is not uncommon under international competition to find several bids spread within this range." The analysis concludes that approximately 75% of the $26,187 direct cost difference between using a British and American employee is due to tax policies and only 25% is due to difference in base salaries.

Views Reported by the U.S Foreign Service Posts. Numerous accounts of the experience of individual firms competing overseas have been reported by U.S. Foreign Service posts, in response to a cable soliciting information on potential export disincentives. The cases reported by the various U.S. embassies around the world illustrate the relationship between the presence of Americans in key commercial and technical positions overseas and the potential for U.S. export sales.

-- The American Embassy in Venezuela reported that the Venezuelan Government telecommunications entity CANTV will purchase wire valued at up to $75 million over the 1980-85 period. With the idea of meeting part of this need with U.S. exports, the resident manager of A7 Wire Company has tried for months to get two specialized U.S. engineers assigned to Caracas to work with CANTV officials on specifications. A7 Wire has not assigned the American specialists to Caracas, "due to the high total cost resulting from the necessity of tax equalization payments to compensate for the effects of curent U.S. tax legislation". According to the resident American manager, European and Japanese competition are under no such constraint.

-- The American Embassy in Venezuela also reported on a project to provide approximately 80 foreign engineers for five years to the local state-owned steel mill. A Japanese firm bid about $13 million. The competing U.S. company bid about $16 million. A high official of the state-owned steel mill stated that the company was "willing to pay some differential for U.S. expertise, but not the 23 percent represented by this instance."

-- The U.S. Embassy in Doha, Qatar reported that "the sale of American products has been hampered by the inability of U.S. firms to maintain personal contact with Gulf businessmen. American firms that are present in Qatar rely heavily on European experts in order to cut costs. This severely restricts trade opportunities." Stressing that "the importance of personal contact cannot be overstated," the U.S. Embassy reported several factors which indicate that expatriate taxation is causing U.S. firms to lose business. Among these is the fact the Japanese have stationed Japanese technicians to operate maintenance facilities in the country, causing American vehicle manufacturers to lose this lucrative market.

-- The U.S. Embassy in Lagos, Nigeria reported that there is a tendency for British nationals with North Sea experience to replace American drilling personnel on offshore oil rigs because of the tax cost of employing Americans. The presence of Americans in the Nigerian economy in these specialized jobs is important for U.S. exports of drilling equipment and other products to Nigeria, since Americans direct purchases to the United States.

Economic Studies of The Relationship between Americans Abroad and U.S. Exports

Caution has been advocated in relating individual cases of lost business, jobs and exports to changes in the method of taxing Americans since 1975. Those describing the competitive impact of U.S. taxation on firms competing for overseas business and on U.S. exports have experienced difficulty in relating microeconomic facts derived from the experiences of individual firms to overall export performance.

A study undertaken by Dr. John Mutti, The American Presence Abroad and U.S. Exports, prepared for the Office of Tax Analysis, U.S. Treasury Department in October 1978, uses a regression model and cross-sectional data for the year 1977 to examine the impact of the presence of Americans overseas on U.S. exports. Dr. Mutti's analysis is based on 1974 exports for 14 categories of manufactured goods exported to 26 foreign countries and on 1975 tax data. The particular industries chosen were intended to reflect a representative sample of U.S. manufactured goods and a range of industries with both strong and weaker U.S. market-positions worldwide. Dr. Mutti's study attempts to quantify the contribution that Americans abroad make to U.S. exports, while controlling other relevant factors affecting export patterns. Variables which reflect the U.S. presence in a given country were selected. These included the assets of controlled foreign subsidiaries of U.S. manufacturing corporations and the number of Americans abroad.

A significant relationship between the presence of Americans abroad and U.S. exports was determined to exist. A ten percent decrease in the number of Americans abroad was estimated by Dr. Mutti to result in a decrease of five percent in the value of U.S. exports. The study offers tentative explanations for the statistically significant relationship between the number of Americans abroad and U.S. exports. First, U.S. presence abroad may be regarded as altering tastes in foreign markets in favor of U.S. goods. Second, the effective price of U.S. goods for foreign buyers includes more than U.S. production costs, transportation charges and import levies. An additional information cost is entailed to determine the quality of the goods sold, the reliability of any maintenance service to be provided, the certainty of delivery dates specified, etc. The presence of Americans in the foreign market serves to reduce these information costs and thus to improve the market competitiveness of the American product.

The significance of Dr. Mutti's findings has been the subject of considerable controversy. He cautioned that his results were preliminary and tentative and advised that they be reviewed using more recent data. Although Dr. Mutti's analysis determined that a reduction in the number of U.S. citizens resident abroad of 10 percent would result in a 5 percent decline in U.S. exports, he also said that such "findings do not have a clear tax policy implication because" his analytical model "does not indicate the extent to which any tax increase might result in fewer Americans abroad". He found that the supply elasticity of Americans abroad was low and "therefore any tax increase is estimated to have a small effect on the [illegible] of American [illegible]rking abroad."

The impact of the Foreign Earned Income Act of 1978 on overseas Americans has more recently been tentatively studied by Chase Econometrics Associates in a June 16, 1980 report, Economic Impact of Changing Taxation on U.S. Workers Overseas. The Chase survey indicated that of the 13 firms surveyed, 375 employees voluntarily returned home in 1979 [illegible] firms reducing

their complement of U.S. workers overseas. They also reported that a survey of the Chamber of Commerce of the United States indicates that the loss of Americans overseas is not limited to the construction industry, but that foreign sales branches of U.S. exporting firms also reported reductions in the staff of overseas Americans in 1979.

The Chase survey also showed that the decline in after-tax income of U.S. construction workers overseas for ten companies was $3,600. A similar survey for other workers overseas showed that the loss for five companies averaged about $7,800. The study indicated that the impact of the 1978 law varies from country to country, falling most heavily on workers in low-tax countries who often need large allowances to compensate for the lack of local public services and amenities. In hypothetical examples of Americans living in Mexico, Japan, Hong Kong and Saudi Arabia, the Chase study showed that the employee in Japan and Hong Kong would be better off under the 1978 law than the 1975 law, but that the employee in Saudi Arabia would be worse off and the employee in Mexico unaffected under the 1978 deductions than with the $20,000 exclusion of prior law.

Private Sector Suggestions

The private sector comments indicate that the present method of taxing overseas Americans involves excessive complexity which is perceived, in itself, to be a significant disincentive and to increase operating costs for firms wishing to assist their employees in preparation of tax returns and in tax planning. Business comment proposed that the present Internal Revenue Code Section 911 exclusion for persons in camps in hardship areas be replaced with a foreign earned income exclusion available to all overseas Americans, irrespective of geographical location or cost of living, and that the Section 913 deductions now generally available to Americans working abroad be abolished. Participants in the Taxation Conference held by the Department of Commerce on June 9, 1980 believed that this proposal would eliminate the present complexity, reverse a perceived trend of penalizing Americans who go abroad to high-cost countries, and help redress the competitive disadvantage resulting from the positive tax inducements offered by other major industrial nations to their citizens working overseas. To prevent fraud and abuse, business representatives proposed that the generally available Section 911 exclusion have a ceiling and that the residency requirements be continued. Other comments suggested the possibility of a combination of both a cap on the earned income exclusion and tighter residency requirements to prevent abuse.

Evaluation

It is clear that those who singled out the tax factor as a serious export disincentive are strongly convinced that further tax relief for Americans overseas is desirable and important. It is also clear that the tax consequences of changes since 1976 in the U.S. system for taxing overseas Americans are likely to vary with the taxpayer's situation. Americans subject to a high foreign tax can be expected to profit little from changes in sections 911 and 913 because their foreign income tax presently offsets most or all of their U.S. tax liability.

Evidence gathered in preparing this study, raises a number of questions which we have attempted to address. For example, it is important to assess when and to what extent the tax factor is the most important factor making it more expensive to hire Americans, in what situations is the added tax cost a large enough component of total cost to cause U.S. companies to lose contracts, and whether the tendency of Americans to buy American is a prevalent practice.

It is difficult to measure these effects in aggregate terms with any precision. The attempts undertaken to date have not been conclusive. Political factors such as the removal of the U.S. presence from Iran and Libya and other economic factors, such as marketing technology and quality control, complicate the picture. The tax returns have not yet been tabulated on the first year's operation of the new law; we do not know how many Americans are claiming sections 911 and 913, where they are, what they are working at, or which groups are better or worse off than under prior law and which would benefit most from further relief.

We can, however, determine that the impact of the U.S. tax on exports will vary. Not all Americans abroad are performing services which are clearly related to exports. In other cases, the relation is indirect or less clear, i.e., some may be producing U.S. imports. Some Americans abroad pay high foreign taxes, so have no net U.S. tax after the foreign tax credit. But for Americans employed in low tax countries — or whose foreign tax is low due to a contractual arrangement or a foreign incentive -- the U.S. tax is an added cost not borne by most third country nationals.

The buy-American tendency is also difficult to evaluate empirically. At what point does it pay the employer to investigate alternative sources of supply? There does seem to be evidence of buy-American; it is probably most common among smaller companies and those for which overseas operations are new or temporary.

On balance, the tax cost does seem to have an adverse effect in some cases, especially where: (1) the foreign tax is low, (2) high compensation is needed to induce an American to go there, to offset high costs or hardship conditions, and (3) the occupation is labor intensive. In such cases the added U.S. tax cost can be large per employee and in terms of overall costs, and made larger by the high tax bracket applied to any tax reimbursement of the employee. Often these conditions occur in developing countries, which represent a growing market for U.S. exports.

Current Status and Continuing Developments

On August 27, 1979, the President submitted to Congress a report entitled, "The Equitable Treatment of United States Citizens Living Abroad," as required by P.L. 96-60, Section 611. A detailed review was made in the areas of citizenship, education, veterans benefits, employment, social security and taxation. Section 407 of Public Law 96-60 amended the scope of Section 611 to require that the President report to the Congress those Federal statutes and regulations which treat Americans living abroad in a way that may cause them "competitive disadvantage" relative to the treatment accorded by other major trading countries to their citizens abroad. On January 24, 1980, the President sent Congress a supplementary report prepared by the Treasury Department, entitled "Equitable Treatment of America[illegible]ving Abroad," which addresses the disadvantages attributable to U.[illegible] [illegible]ared to the tax practices of our major competitors.

The President's letter of transmittal to Congress stressed that the Administration believes that it would not be prudent to recommend changes in the law until the Treasury Department has had the opportunity to assess the operation of the new provisions of the Foreign Earned Income Act for tax year 1979, and report to Congress, as required by the Act, on its economic and revenue effects. This report is not expected to be ready before the Spring of 1981, due to the length of time necessary to collect data from individual income tax returns.

Several legislative proposals to change the tax treatment of expatriate Americans have been introduced during the 96th Congress. S. 2283, introduced by Senator Chafee, would exclude from taxation (1) up to $50,000 of the foreign earned income of U.S. citizens or residents physically present in a foreign country or countries for 510 full days (approximately 17 months) out of 18 consecutive months or bona fide residents of a foreign country for an entire taxable year; and (2) up to $65,000 of the earned income of citizens of the United States who have been bona fide residents of a foreign country or countries for an uninterrupted period of three consecutive years. The bill also provides an additional housing allowance deduction for the amounts of excess housing costs paid by Americans' overseas employers. S.2418, introduced by Senator Bentsen would exclude from taxation up to $60,000 of the earned income of persons physically present in the foreign country for eleven out of twelve consecutive months and Americans who have been bona fide foreign residents for one or more years. S.2779, a bill introduced by Senator Roth to establish a national policy on export-related taxes, would provide a maximum exclusion of $65,000 for Americans who are bona fide foreign residents for more than three years. H.R. 5211, introduced by Congressman Frenzel, S.2321 introduced by Senator Jepsen, and H.R. 6659, introduced by Congressman Alexander would provide an unlimited exclusion of foreign earned income of individuals qualifying by virtue of a bona fide residence or physical presence abroad and repeal Section 913 of the Internal Revenue Code, which presently provides special deductions for extraordinary costs of living abroad. H.R. 5211 is estimated to cost about $500 million and the other bills are estimated to cost about $400-450 million for FY 1981. These estimates assume no change in the behavior of U.S. citizens as a consequence of the tax changes and do not calculate changes in corporate income or deductions which may result.

ANNEX A, CHAPTER 8

Summary of Special Deductions Provisions of The Foreign Earned Income Act of 1978

The Foreign Earned Income Act of 1978 (P.L. 95-615, 92 Stat. 3098) was passed by Congress on November 8, 1978. It eliminated the general exclusion for Americans working abroad, with one exception. A $20,000 exclusion was provided for U.S. workers living in remote camps in hardship locations with substandard housing. Other U.S. citizens working abroad were provided new deductions for the extraordinary expenses they encounter while living in high-cost countries and at hardship locations. These special deductions, available only to individuals who are bona fide residents of a foreign country for an uninterrupted period that includes an entire taxable year or who are physically present in a foreign country or countries for at least 510 full days (approximately 17 months) during a period of 18 consecutive months, include the following:

- Qualified cost of-living differential is based on the general cost of living (not including housing and schooling expenses) and reasonable daily allowances. The cost-of-living deduction is equal to the excess of the foreign cost-of-living index over the U.S. index applied to "spendable income". The income level of a U.S. employee at Step 1 of GS-14 ($34,713) must be used to calculate this deduction. This rule reduces the deduction for employees whose income is above this predetermined level.

- Qualified housing expenses include "reasonable" housing expenditures in excess of a base housing amount. In general, the qualified housing expenses are those expenses attributable to the high cost of suitable foreign housing. The base housing amount is 20% of the difference between the individual's earned income and the sum of housing expenses, cost of living differential, qualified education expenses and qualified home leave travel expenses.

- Qualified schooling expenses include the cost of a boarding school or local private school, as well as travel to and from school and various expenses while at school.

- Qualified home leave travel expenses include the cost of one round trip back to the United States for each 12-month period abroad.

- Qualified hardship area deduction. This is an additional deduction of up to $5,000 per year. Unlike the other four special deductions, this deduction is not based on expenses incurred by the taxpayer. Rather, it is a premium for enduring adverse conditions which is available to persons who live in a place where there are extraordinarily difficult living conditions, or excessive physical hardship. These are areas designated by the Secretary of State as hardship posts, where employees of the U.S. government receive an actual pay differential of 15 percent or more.

ANNEX B, CHAPTER 8

This annex summarizes the expatriate taxation systems of Canada, France, the Federal Republic of Germany, Japan, and the United Kingdom. This information is based on an analysis of foreign laws which Treasury published in a January 24, 1980 study, Equitable Treatment of Americans Living Abroad

Canada

Canada taxes nonresidents only on their Canadian source income, while residents are subject to tax on their worldwide income. The criteria for determining residence are not spelled out in the law, but may be found in court case. The main criteria are:

- time spent in the country during the tax year in question and preceding years;
- reason for the individual to be in Canada and/or absent from Canada;
- residency in Canada;
- origin and background;
- style of living;
- other ties he has to Canada.

Court cases demonstrate a tendency to broadly construe the concept of residency. For example, one court case concerned a man who lived in Canada until he was age 51, at which time he left and set up a home in the United States. He subsequently purchased a home in Canada where his wife lived all year round. Although he never spent more than 150 days a year in Canada, the court held him to be a Canadian resident. Another case concerned a student at the University of Toronto who was abroad for 11 months studying languages as part of her course work. When she returned to Canada, she discontinued her studies and took an apartment in Montreal. She was held to have remained a resident of Canada during the period of her studies abroad. Other court cases have held that a person can be resident in two countries at the same time. The Canadian Income Tax Act also extends the meaning of "resident" for the taxable year to Canadian diplomats, members of the Canadian Armed Forces, and individuals who "sojourned in Canada in the year for a period of, or periods the aggregate of which is, 183 days or more." A recent proposal would exempt from the tax one-half of foreign earned income up to a maximum exemption of $50,000 per year of persons engaged in specified activities, such as construction and natural resource extraction, in specified countries.

France:

France taxes non-residents only on their French-source income, while individuals who are resident or have their domicile in France are subject to tax on their worldwide income. Individuals are considered domiciled in France if their home or place of principal abode is there; if they perform personal services there, whether as an employee or self-employed, unless it can be shown that those services are of minor importance; or if their center of economic interests is in France.

However, France provides special tax relief to certain domiciliaries who work abroad. For example, French nationals domiciled in France who are sent abroad by an employer established in France are exempt from French tax on the income for the services performed abroad if they meet one of two conditions: (1) the foreign earned income is taxed by the country of employment in an amount equal to at least two-thirds of what the French tax would be on that amount; or (2) the services are performed abroad during a period of more than 183 days in twelve consecutive months in a qualifying activity. Qualifying activities are construction or assembly projects, installation and operation of industrial plant, planning and engineering services connected with either construction or industrial operations, and exploration for and extraction of natural resources.

Domiciliaries of France working overseas for an employer based in France who do not qualify for exemption under either of these two conditions are taxable in France on the salary that would have been received in France for those services. Special allowances attributable to employment outside the country are not taxed; this same rule applies to French Government employees stationed abroad.

Federal Republic of Germany

Germany taxes nonresidents only on their income from German sources, with the exception that, beginning in 1975, German citizens (and relatives belonging to their households) who are employed abroad by a German public (governmental) entity are subject to tax on their worldwide income if the country in which they reside taxes them only on income arising in that country.

German nationals who emigrate to a low tax country but retain significant commercial interests in Germany may be taxed more heavily than other nonresidents on their German source income for ten years. (The United States has a similar provision applicable to former citizens.)

In general, Germany taxes residents on their worldwide income. An individual is considered to be a resident if he has his domicile or his principle place of abode in Germany, whether or not he is physically present in Germany. Domicile is defined as the place an individual resides under circumstances leading to the conclusion that he intends to make it his permanent home. A principal place of abode is where a person is located under circumstances that show more than a temporary presence. Any individual who is physically present in Germany for more than six months of the tax year is generally considered to be a resident from the beginning of the tax year.

However, a resident who is employed abroad for more than three months but not more than two years in the construction, operation or repair of plant or equipment or in exploring for or extracting natural resources is exempt from tax on the foreign earnings for those services.

Where exemption does not apply, an allowance for the overall added cost of living abroad may be excluded from the tax base. The amount excludable is fixed by the government and based on the cost of living differential allowed to government employees at the foreign location.

Japan

Japan taxes individuals who are neither resident nor domiciled in Japan only on their Japanese source income. In general, Japan taxes individuals who maintain their domicile ("jusho") in Japan on their worldwide income, whether or not they reside in Japan. Domicile is determined on the basis of facts and circumstances which indicate that the individual intends and has taken actions to make his habitual home in Japan.

However, Japan provides special tax relief to certain residents who work abroad. When a Japanese domiciliary works outside the country as an employee, he is not taxed on special allowances paid him to compensate for higher price levels abroad or to compensate for extra costs incurred to maintain his living standard, allowances which do not put him in a more beneficial position than he would have enjoyed in Japan. This exclusion is only available where such allowances are received; it would not, for example, be applicable in the case of self-employed persons.

United Kingdom

The United Kingdom taxes nonresidents only on their U.K. source income, which includes income derived on the U.K. continental shelf.

In general, the United Kingdom taxes individuals who are domiciled or resident in the United Kingdom on their worldwide income. However, individuals who are resident but "not ordinarily resident" are only taxable on remuneration for services performed abroad for a foreign employer to the extent that the earnings are remitted to the U.K. Remuneration for services performed in the United Kingdom for a foreign employer are taxed on one half of the amount net of expenses or on three-fourths if the recipient was a resident of the United Kingdom for nine of the ten preceding years. Individuals who are "ordinarily resident" are in principle taxed at the normal rates on their worldwide income, with the exceptions noted below.

"Ordinary residence" is not defined in the Tax Acts, but as interpreted by the Courts it involves the intention and evidence of habitual residence in the United Kingdom.

A person can be ordinarily resident in the United Kingdom while physically absent for the entire year. Persons moving to the United Kingdom are treated as ordinarily resident as of the third year of their arrival or from the date of arrival if there is a clear intent to take up permanent residence or to remain at least three years.

An individual who is ordinarily resident in the United Kingdom and who performs personal services outside the United Kingdom as an officer or employee is exempt from U.K. tax on the remuneration for such services if the individual remain outside the United Kingdom for at least 365 days, including return visits for not more than 1/6 of the number of days from the first departure from the United Kingdom, or not more than 62 continuous days in the 265 day period. Thus, [illegible] the individual has been absent from the United Kingdom for 60 days, he may return for 10 days, and on returning abroad may count his period of absence as 70 days. After another 20 days abroad, he would be allowed to return for 5 more days (1/6 x 90 = 15 - 10 = 5) without interruption his period of qualification toward the 365 days. Where a person qualifying for the exemption also performs some services within the United Kingdom, the portion of compensation qualifying for the exemption as earned abroad is defined as reasonable compensation for the duties performed abroad.

Employees who do not qualify for the full exemption may deduct 25 percent of their foreign earned income if they spend at least 30 days working outside the United Kingdom during the tax year (including days off in a full work week) or have a separate employment with a nonresident firm for which they perform services wholly outside the United Kingdom (with no minimum time period).

The deduction is also available to persons ordinarily resident in the United Kingdom who carry on a trade or business abroad or who are self-employed. Such persons may deduct 25 percent of their foreign earnings if they derive income from a trade or profession carried on wholly outside the United Kingdom, or if they perform services through a nonresident partnership. Losses from a foreign business or profession (reduced by 25 percent if the 25 percent deduction applies to profits) may be offset against other foreign earned income of the same or the following year or subsequent profits of the same business or profession. Foreign losses may not reduce income from U.K. sources.

The 25 percent deduction is computed by taking 25 percent of a reasonable amount for the foreign services gross of any special overseas allowances and tax equalization payments but after other allowable business expense deductions. For persons who work both in the United Kingdom and abroad for the same employer or for related companies, the "reasonable amount" of foreign earning is initially presumed to be that portion of the annual earnings which the days worked overseas bears to the total days worked.

ANNEX C, CHAPTER 8

The following is an excerpt from the Statement of Peter J. Hart, Partner, Price Waterhouse & Company, presented to the Senate Finance Committee, Subcommittee on Taxation and Debt Management, Hearing on Taxation of Foreign Earned Income, June 26, 1980:

Example of Complexity of Housing Deduction

The following steps are typically required just to compute this one element of the Section 913 deduction:

1. Amounts paid during the taxable year for rent, utilities, insurance, repairs and other housing costs must be determined. If a payment is attributed to a prior or subsequent taxable year, a proration between years is necessary.

2. Each separate payment noted in step 1 must be translated into U.S. dollars at the exchange rate in effect on the date of payment. This step alone may require more than fifty translations.

3. Total "housing income" must be determined. This is total income earned (including allowances and expense reimbursements) while living abroad reduced by allowable deductions.

4. Housing income must be reduced by other Section 913 deductions (schooling expenses, cost-of-living differential, home leave travel expenses, hardship area deductions) as well as the total housing expenses determined in step 2.

5. The amount determined in step 4 is multiplied by 20 percent. The result is known as the "base housing amount."

6. Total housing expenses (determined in step 2) in excess of the base housing amount (determined in step 5) are the deductible housing expenses.

In most cases the resulting deduction is zero.

CHAPTER 9. CODE OF CONDUCT

This chapter discusses the laws, regulations and policies governing acceptable business practices in three areas. foreign corrupt practices, antiboycott and antitrust.

THE FOREIGN CORRUPT PRACTICES ACT*

Definition of the Potential Disincentive

The Foreign Corrupt Practices Act (FCPA) is identified by businessmen and attorneys as one of the most significant export disincentives. The FCPA is considered a disincentive to U.S. exports for two reasons. First, the Act prohibits illicit payments to foreign officials for the purpose of obtaining, retaining, or directing business to any person. Second, the Act inhibits exporting because of uncertainty within the business community about the meaning and application of some of its key provisions.

Statutory Authority and Policy Objectives

The Foreign Corrupt Practices Act of 1977 is intended to reduce corruption in international trade by U.S. business concerns. The Act, Public Law 95-213, makes, inter alia, certain payments, offers of payments, and gifts to foreign officials, foreign political parties, or foreign political candidates illegal. It also establishes general recordkeeping standards for all publicly held corporations. Companies are required to establish internal accounting controls sufficient to provide reasonable assurances that certain statutory objectives are met. Enforcement responsibility is shared by the Department of Justice and the Securities and Exchange Commission (SEC).

By reducing corrupt practices in international business transactions, the FCPA is also designed to lessen the likelihood that successor foreign governments would expropriate the assets of U.S. businesses or cancel contracts, or that political controversy stirred by revelations of corruption involving American bribes would endanger the stability of friendly foreign governments or otherwise complicate the relations of the United States with foreign nations.

The Act was passed following the Watergate scandal and the widespread disclosure of questionable payments, both foreign and domestic, by more than 400 major American companies. Congress passed the legislation unanimously. By enacting the FCPA, the United States moved into a new area of regulation of U.S. concerns in foreign nations which have differing laws, regulations, and customs.

This review examines the effect of the FCPA on exports. The first phase of this review was completed in February 1980 with an interagency interim report and a Presidential statement on "Reducing Export Disincentives". Additional

*While the Department of Justice was consulted in the preparation of this section, it does not concur with the discussion.

information has since been solicited concerning the impact of the Act on U.S. exports: the general public has submitted comments in response to an April 29, 1980, Federal Register notice that was mailed to several hundred trade associations; a cross section of knowledgeable private sector representatives provided additional comments at a June 6, 1980, conference; foreign posts submitted information; and the President's Export Council was asked for its views. A special interagency working group discussed many of the comments received, a preliminary draft report, and the issues it raised. The following pages represent an effort to digest the various responses and to report some of the principal issues.

Much of the discussion below draws heavily upon comments and reports of executives of companies engaged in international trade and their attorneys. That is appropriate since in large part disincentives are, by definition, in the eye of the beholder. Accordingly, examples often are anecdotal. Such information is not the best "evidence"; at the same time, it provides specifics that usually have been absent from discussions of this issue.

It is virtually impossible to quantify the effect of these disincentives. This is particularly true in the case of indirect losses, i.e., losses which result from failure to even compete in a market as opposed to losses which result from failure to obtain a particular contract. Moreover, many of the negative impacts are simply not known and those that are known have not been systematically catalogued.

Conversely, export losses attributed to the FCPA may in fact have resulted, in whole or in part, from other causes. Problems or potential problems with the FCPA may have been only one of a number of factors that influenced a marketing decision. And, finally, it is often difficult to separate the impact of the Act's clear prohibitions and the impact of ambiguity in the Act.

Prohibition of Illicit Payments. Although some companies express the view that the FCPA prohibition against bribery has not impaired their competitiveness, others report that this prohibition does cause substantial loss of sales to competitors from countries without comparable prohibitions. There is increasing evidence which suggests that unilateral U.S. action reduces U.S. exports. However, this possibility was not unanticipated.

As a matter of national policy, the United States has decided that bribery of foreign officials to secure export sales is reprehensible and can affect U.S. foreign relations and that U.S. companies have to forego exports that can be attained only by illicit payments. The unequivocal position of the Administration and the Congress reflects the view that corruption in international business transactions is morally repugnant, economically unnecessary, and politically undesirable. The Administration is firmly committed to these basic principles even though the prohibition against bribery may in the short run result in some loss of U.S. exports.

The comprehensive solution to the problem of illicit payments in international business must ultimately be international agreement and collective action. Although most nations prohibit domestic bribery, the United States is the only country that explicitly proscribes illicit payments to foreign officials. Other nations, however, have not to late followed the

lead of the United States, and progress in international negotiations has been very slow. The recent commitment by the Venice Economic Summit participants to pursue an international agreement on bribery is encouraging.

Exports Lost Because of Uncertainties. Uncertainty about the meaning of key provisions of the FCPA and how it will be applied is having a negative effect on U.S. exports. Many of the businessmen and attorneys consulted expressed the view that this uncertainty has a far greater impact than the actual prohibition against bribery.

The problem described, in essence, is that what conduct is prohibited and what conduct is not prohibited under the Act is often unclear. In order to avoid possible violations of the Act, attorneys often give such cautious guidance that their clients simply forego any transactions where the FCPA could possibly become an issue.

Some exporters report that provisions of the Act that affect the use of foreign joint ventures, foreign sales agents, or foreign subcontractors create particularly troublesome ambiguities.

The effects of these uncertainties reportedly manifest themselves in various ways. Consultations with the private sector revealed instances in which U.S. companies:

- Withdrew from joint ventures for fear they later could be held responsible for the acts of their foreign partners;
- Incurred substantial legal and investigative costs to check the backgrounds of their sales agents abroad;
- Were unable to obtain the services of effective sales agents;
- Lost contracts simply because of the time needed to investigate sales agents and institute safeguards;
- Withdrew from existing markets; and
- Declined to enter new markets.

Finally, companies point out that the extent to which companies have been successfully prosecuted under the FCPA does not define the extent of the disincentive. Uncertainty can be a disincentive without any prosecutions and, moreover, exports are inhibited merely by the possibility of public charges and the adverse publicity surrounding them. Even where a company is totally convinced that a court would find that it had not violated the FCPA, it nonetheless may forego the export opportunity for fear that an enforcement agency could publicly charge it with a violation of the Act.

Perceived Ambiguities in the Act

This review focuses on the uncertainty created by perceived ambiguities in the statute and in the possible applications of the statute by enforcement authorities. The comments recited below were all offered as examples of

effects of the Act's ambiguities; however, it is not always possible to confirm the distinction between the ambiguities and the clear prohibitions.

Corporate executives report that their efforts to conduct business overseas are continually frustrated by uncertainties stemming from ambiguities in the meaning and application of several key provisions of the Act. They argue that the problem of uncertainty is compounded by a lack of guidance from the enforcement agencies as to proper interpretation of these provisions. This problem, in turn, is exacerbated by the dual enforcement authority of the Justice Department and the SEC over the Act's payments provisions.

Consultations with the private sector indicate that these uncertainties inhibit U.S. exports. Some companies have foregone business opportunities altogether. Many small and medium-sized businesses say they have not attempted to compete abroad because they do not understand the FCPA and do not have the time and money needed to assure themselves that transactions will not result in criminal liability under the Act. Other companies avoid particular portions of the globe altogether, including such areas as developing nations in South America, the Far East, the Mediterranean, Africa, and some OPEC nations. One attorney reported that he had recently polled 12 of his clients to ask if the FCPA was a problem for their operations. Six reported that it was not a problem because they had simply ceased doing business altogether in those countries where the FCPA might be an issue. The remaining six continued to encounter problems.

Other firms report lost export opportunities because of delays necessary to assess the possible legal implications of transactions under the FCPA. The U.S. Embassy in Muscat, Oman reported, for example, that a U.S. firm lost a $20-30 million contract solely because of such a delay.

Further, many companies indicate that these uncertainties reduce their international price competitiveness and their productivity because significant manpower and resources are devoted to assessing the potential for liability under ambiguous provisions.

FCPA provisions relating to the following issues are most frequently cited by businessmen as ambiguous and the cause of uncertainty:

1. Liability for the conduct of agents.

2. Entertainment and gift expenditures.

3. "Facilitating" or "grease" payments.

4. Extortion.

5. Corrupt intent.

6. Foreign official.

7. Accounting and recordkeeping.

8. Dual enforcement jurisdiction.

1. Responsibility and liability for the conduct of foreign agents--the "reason to know" test. This is by far the area of greatest concern to businessmen. The FCPA prohibits indirect as well as direct bribery payments. Thus, a company violates the Act not only by making payments directly to foreign officials for certain purposes but also by making payments to "any person, while knowing or having reason to know" that all or part of that money will ultimately be given to a foreign official. Many companies argue that uncertainty about the extent to which liability will be imputed vicariously as the result of the conduct of associates makes the use of agents in countries where they play a critical role very difficult. They also point out that this provision can apply equally to prime contractors, distributors, employees, partners and other intermediaries.

Many U.S. firms maintain that it is very difficult to evaluate or control the conduct of overseas associates for whose conduct they may be held liable. For example, an executive from a Pennsylvania engineering firm which had ceased to do business in the Middle East observed that even though it was difficult to determine whether the agents would make improper payments, the firm would still be criminally liable if it turned out that they did. He further noted that the use of agents is often required by the host country.

The Act's legislative history suggests that Congress did not intend that companies be penalized for the activities of "an agent who has run amuck and was not acting pursuant to corporate order." However, many businessmen are uncertain about what constitutes "having reason to know" that a payment will be used to bribe a foreign official. They express uncertainty, for example, about the extent of their duty to investigate or look for suspicious conduct. The "reason to know" standard suggests that a company would be deemed to have "reason to know" where it ignored "red flags", that is, indications that would lead a reasonable person to believe that an agent was making a prohibited payment. However, some exporters believe that the "reason to know" standard could also be read very broadly, in effect holding a company accountable for virtually any act of its agent or partner.

Companies are uncertain about the extent to which they can insulate themselves from liability from the corrupt activities of its agents by instituting control procedures designed to ensure compliance with the Act. Many companies are concerned that they may be held liable if bribery occurs even after they have instituted reasonable, prudent safeguard procedures.

Businesses report uncertainty about the possible effect of a country's reputation as a place where payments are regularly made. Some companies and their attorneys are concerned that in countries where bribery of government officials is commonplace, "reason to know" will be presumed in all cases. One American manufacturing firm, whose exported products were marketed by a local agent, paid the agent what it believed to be a reasonable commission. However, the company was aware of local trading practices and could not be certain that the agent was not using this money to pay off government procurement officials. The company's uncertainty was whether it could be held liable for the conduct of the agent if it were later determined that the agent was in fact using part of his commission to pay off local officials. As a result of such uncertainties, many companies report they are hesitant to make legitimate use of sales agents in markets where such agents play an integral role in selling U.S. products.

Also of particular concern is the situation created when firms seek to expand trade in those developing countries where foreign nationals are limited to non-controlling interests in joint ventures. Since the U.S. company cannot control the venture, it cannot always ensure compliance with the FCPA despite the best efforts of its representative director. Rather than risk prosecution under such circumstances, some U.S. firms have declined to enter these markets or have withdrawn from them.

2. The scope and limit of entertainment and gift expenditures. Businessmen express uncertainty about the extent to which entertainment and gift expenditures are permissible under the FCPA. Aside from the so-called grease payments exception (discussed below), there is no specific exception for entertainment or gifts. They argue that since the statutory standard of "something of value" could encompass lunch, theater tickets, accommodations, a Christmas gift, and the like, the question is raised whether any promotional gifts or entertainment expenditures are permissible. Others express uncertainty about the extent to which the laws and social customs of the host country will be taken into account in determining whether a gift or entertainment is given "corruptly."

3. The boundaries of "facilitating" or "grease" payments. One of the greatest sources of uncertainty identified by businessmen and their attorneys is the scope of the FCPA's exception for "grease" or "facilitating" payments. Complaints typically cite the disparity between statements in the legislative history describing the exception and the statutory language itself.

The legislative history of the Act indicates that Congress intended to differentiate between illicit payments and what are commonly called "grease" or "facilitating" payments. One legislative committee report explained:

> While payments made to assure or to speed the proper performance of a foreign official's duties may be reprehensible in the United States, the committee recognizes that they are not necessarily so viewed elsewhere in the world and that it is not feasible for the United States to attempt unilaterally to eradicate all such payments. As a result, the committee has not attempted to reach such payments. However, where the payment is made to influence the passage of law, regulations, the placement of government contracts, the formulation of policy or other discretionary governmental functions, such payment would be prohibited. (H.R. Rep. No. 95-460, 95th Cong., 1st Sess. 7-8 (1977))

Businessmen and lawyers maintain that this intent, however, is not reflected in the language of the Act. In the statute itself, grease payments are defined in terms of the status of the recipient. Specifically, the term "foreign official" excludes employees whose duties are "essentially ministerial or clerical." This statutory language raises the question whether a large, corrupt payment to an official with ministerial duties is not prohibited while a small payment to expedite processing customs forms is prohibited if made to a more senior official.

Many businessmen argue that courts may determine that the prohibition of the Act applies to facilitating payments in certain instances, notwithstanding what they regard as inconsistent legislative history.

4. Extortion vs. corruption. Businessmen insist that the line between extortion and bribery under the FCPA is unclear. The former Chairman of the British Overseas Trade Board has suggested that "the main problem is extortion, rather than corruption - that you can't do business (in many parts of the world) unless you pay the entry fee." Businessmen argue, however, that the legislative history indicates that Congress did not intend for the Act to prohibit payments made as a result of "true extortion."

The legislative history indicates that payments made as the result of threats of physical violence to a company's plant or personnel would be defensible under the Act on the grounds of extortion. The Senate Report states, for example, that a payment made to an official "to keep an oil rig from being dynamited should not be held to be made with the requisite corrupt purpose." Questions are raised, however, about payments made as the result of threats with purely economic as opposed to physical consequences, such as threats of expropriation or threats to cut off oil supplies, which are not addressed in the legislative history.

5. Corrupt intent. Businessmen report uncertainty as to what constitutes the requisite corrupt intent. The Act prohibits only payments or promises of payment which have been made "corruptly." The legislative history indicates that "corruptly" connotes an evil motive or purpose, namely that the payment is made to induce a foreign official to wrongfully direct business to or obtain preferential legislation for the company. It is not necessary that "the act be fully consummated or succeed in producing the desired outcome" or that the payment violate the law of the host country.

This raises questions in some executives' views about the legality of financial contributions that are commonplace and permissible under local law, but would be illegal if made in the United States.

6. Foreign official. Businessmen assert that there are vast differences among countries as to what is viewed as a "public" or "official" function. In some countries, for example, telephone or electric company officials are "public officials." Businessmen say there is some uncertainty as to whether the Act covers transactions with public officials who are involved in what are essentially commercial enterprises.

7. Accounting and recordkeeping. Some companies also report a significant amount of uncertainty about the accounting and recordkeeping requirements imposed by the Act. While the uncertainty in this area does not directly affect exports, it can impose significant costs on exporters and, in turn, affect their international competitiveness.

These provisions require that affected companies keep their books in "reasonable detail" which "accurately and fairly" reflect transactions and dispositions of assets and have internal accounting controls which provide "reasonable assurances" that transactions are executed in accordance with management's authorization; that transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets; that access to assets is permitted only in accordance with management's

authorization; and that the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

These requirements appear to have produced widespread uncertainty and concern within the business community. Some executives maintain that they are presently unable to determine what constitutes compliance. They argue that many of the terms used, such as "reasonable assurances" and "reasonable detail," are unclear. On another level, some companies are uncertain about the relationship between the accounting and bribery provisions of the Act.

8. Dual enforcement jurisdiction. Businessmen and attorneys maintain that enforcement of the FCPA by two agencies creates unnecessary uncertainties. Sections 103 and 104 proscribe foreign corrupt practices by issuers of securities and other domestic concerns, respectively. The SEC has primary investigatory and civil enforcement responsibility for violations by companies that have securities registered under section 12 or that make reports under section 15(d) of the Securities Exchange Act. The Department of Justice has similar civil jurisdiction over privately held domestic firms. The Justice Department has enforcement responsibility for criminal violations for both sections of the Act.

The SEC has declined to provide guidance to the business community or to participate in Justice's FCPA Review Procedure. As a result, some exporters believe the failure of the two enforcement agencies to agree on a common mechanism for providing guidance could result in varying interpretations for similar provisions.

Current Status and Continuing Developments

Some steps have been taken in an effort to reduce the negative export consequences of the FCPA. The Department of Justice has established a review procedure and outlined its enforcement priorities. The United States has continued to press for the adoption of an international agreement on bribery.

FCPA Review Procedure. In an effort to ameliorate the problem of ambiguities in the antibribery provisions of the Act, the Justice Department established on March 24, 1980, a FCPA Review Procedure similar to that already available in the antitrust area. Under this procedure, a business can submit to the Justice Department details of a proposed international transaction and can request a determination of Justice's enforcement intentions. The validity of the submission must be certified by a senior officer with operating authority. Justice's criminal division will respond to the request within 30 days after receiving all the information it considers relevant to the proposed transaction.

The Review Procedure will apply only to possible bribery violations and not to violations of other sections of the law. The statement of enforcement intention will bind the Justice Department, but not the SEC.

The Justice Department will not disclose information which is exempt from mandatory public disclosure under the Freedom of Information Act concerning, the name of the foreign country involved in the proposed transaction, the

identity of foreign agents and, when it considers necessary, the name of the firm seeking guidance. Justice intends to publicize the nature of each transaction along with Justice's enforcement intention.

Businessmen are not optimistic that this procedure will prove very useful. First, they believe that Justice's response will ordinarily come after business decisions must be made. Second, they argue that foreign agents will often be reluctant to provide them with the information needed by Justice to evaluate the proposed transactions. Third, they are concerned that confidential business information contained in their letters may be disclosed. They are also concerned that the mere fact that they have sought Justice Department guidance will become known and will result in adverse publicity. Fourth, they argue that the usefulness of this procedure is substantially diminished by the SEC's unwillingness to participate.

Finally, they maintain that the precedential value of the review letters is limited because Justice's statement of enforcement intentions will apply only to the particular transaction under review. Aside from this problem, businessmen point out that it will take a number of years before a sufficiently broad range of issues will have been addressed under the procedure to provide useful guidance.

The February 1980 statement of the President directed the Secretary of Commerce and the Attorney General to initiate, after one year of operating experience, a review of the effectiveness of the Review Procedure in reducing uncertainty about the meaning of the Act. The review will include input from business and other interested parties.

Enforcement Priorities. Assistant Attorney General Philip B. Heymann outlined the Department of Justice's enforcement priorities with respect to the FCPA in a speech given November 8, 1979, in New York. He explained that enforcement priority means specifying the type of cases which will be considered the most urgent and egregious. It does not mean specifying which cases the Department of Justice will decline to prosecute -- that type of information is to be provided by the FCPA Review Procedure.

Enforcement priorities relate to the decision to open an investigation and to determine what, if any, enforcement action is warranted. The following actions were identified as being egregious and increasing the likelihood of prosecution:

- Bribes made in a market where the only other competitors are American companies;
- Bribes made in a market where there are non-American competitors, but where the only company indulging in corrupt practices is the American company;
- Bribes made in a country which is making an effort to eliminate such actions; and,
- Bribes made to a foreign cabinet officer or other officials of high rank.

The following characteristics were identified as factors affecting the likelihood of prosecution:

- o The size of the payment and the size of the transaction;
- o The past conduct of the violator;
- o Involvement, either actively or passively, by a senior management official;
- o Involvement by a lower-level employee where the company has been less than diligent in monitoring employee activities; and,
- o The strength of the evidence available to the Justice Department and the likelihood of obtaining additional needed evidence.

International Efforts to Reduce Illicit Payments. The United States Government has consistently taken the position that bribery and extortion involving foreign officials are international problems affecting every region of the world and all forms of economic organization. The United States has urged that multilateral international action is essential to solve these problems; that host countries have a strong interest in eliminating practices that raise the cost of goods and services they purchase, distort development programs, and undermine public confidence in government; and that the major trading powers have a strong interest in eliminating extortion and bribery which distort international trade and investment and implicate their nationals in conduct which corrupts the decisionmaking process of foreign governments.

Accordingly, the United States has continued to support the adoption of an international agreement which would establish a framework for cooperation among nations to control bribery and extortion involving government officials with respect to international commercial transactions. The key elements of such an agreement are:

- o A clear commitment by states to adopt and to enforce criminal laws prohibiting bribery of foreign officials by their nationals and prohibiting extortion of foreign enterprises by their officials; and
- o Provisions for effective international cooperation in the prosecution of offenders by exchanging information and judicial assistance.

The United States first proposed an international agreement on bribery and extortion to the United Nations Commission on Transnational Corporations in the spring of 1976 after the General Assembly had adopted Resolution 3514 calling upon host and home governments to cooperate and to prosecute persons who commit such offenses. In response to this U.S. initiative, the United Nations Economic and Social Council established in August 1976 a working group to examine the problem of illicit practices and to elaborate in detail the scope and contents of an international agreement to prevent and eliminate illicit payments in connection with international commercial transactions.

In June 1976 the member governments of the Organization for Economic Cooperation and Development (OECD) adopted guidelines for multinational enterprises that included the principle that "enterprises should not render -- and they should not be solicited or expected to render -- any bribe or improper gift, direct or indirect, to any public servant or holder of public office."

The President raised this issue with the heads of governments of the other major industrial nations at the London Economic Summit on May 8, 1977, and they agreed that "illicit practices and improper conduct should be eliminated from international trade, banking and commerce." The Summit endorsed "the work being done toward international agreements prohibiting illicit payments."

Support for an agreement has also been expressed by ministers of all the OECD countries at their annual meetings in 1977 and 1978, and the United States obtained the support of several important Latin American leaders at a meeting held in Panama in June of 1978.

The United States continues to invest considerable diplomatic effort in this important project, and much technical work has been accomplished. A draft agreement has been prepared in the United Nations which would establish a basis for prohibiting bribery and extortion involving foreign officials.

Despite these developments and general statements of support for international action by many governments, concrete international action has not yet been taken on specific measures to deal with the problem. The developing countries have attempted to link progress on this matter with other issues in the North/South dialogue. At the same time, the major industrial countries, who could accomplish a great deal by refusing to compete on the basis of bribery, have been reluctant to take international action on their own.

However, at the Venice Economic Summit the President again raised the issue with the heads of state of the other major industrial nations, and on June 25, 1980, the seven nations issued a communique in which they pledged to commit their governments to "work in the United Nations toward an agreement to prohibit illicit payments to foreign government officials in international business transactions" and, if that effort falters, to "seek to conclude an agreement among ourselves, but open to all, with the same objective." While negotiations on this issue are likely to continue to be difficult, coordinated international action on illicit payments will remain a high priority of this Administration.

ANTIBOYCOTT REGULATIONS

Definition of Potential Disincentive

Two separate antiboycott statutes are now in effect, the Antiboycott Amendments to the Export Administration Act (EAA) passed in 1977, and the Ribicoff Amendment to the Tax Reform Act of 1976 (TRA). These two statutes

impose some different prohibitions, contain different exceptions, authorize different sanctions, and are enforced by different Departments. The Sherman Antitrust Act has also been applied to boycott related activities in a consent decree entered by the court. The prohibitions set forth in the consent decree differ in some respects from those in the antiboycott statutes.

In comparison to other laws and regulations on this subject, the EAA Amendments are more comprehensive, in part because they were the result of an extended legislative process that involved the principal groups concerned. Although the EAA preempted state antiboycott laws, it did not supersede the TRA. While considerable efforts have been devoted to harmonizing the regulations implementing these two statutes, they are different in critical respects. As a result, behavior that is permissible under the detailed EAA amendments and regulations may be restricted under the Tax Code, and vice versa.

Statutory Authority and Policy Objectives

The legal and statutory initiatives taken by the U.S. Government in 1976 and 1977 against U.S. firms complying with unsanctioned foreign boycotts were a direct result of the substantial increase in Arab pressure on U.S. firms to support the Arab League boycott of Israel and of blacklisted companies. The boycott has been in effect since 1948, but it was not until the oil embargo of 1973 and the dramatic increase in the economic power of the Arab States that it began to have a serious impact on U.S. commerce. In 1975, the Congress focused its attention on the boycott and determined that there was substantial evidence that many U.S. firms were acquiescing in Arab boycott demands to the detriment of other American companies and U.S. trade with Israel. The possibility that the boycott could be used as a weapon of religious discrimination, with U.S. companies as active participants, was of particular concern to the Administration and to the Congress.

The EAA of 1969 contained the first U.S. policy and regulatory response to the boycott. The statute was slated to expire on September 30, 1976, and in 1975 the Congress began considering tougher antiboycott measures in conjunction with the extension of the 1969 Act. During 1975 and 1976 several States including California, New York, Ohio, and Maryland considered and adopted antiboycott laws. The Justice Department brought court action against Bechtel in 1976 for alleged violations of the Sherman Act, applying an antitrust analysis to certain boycott activities. The TRA included a provision denying certain foreign tax benefits to companies participating in unsanctioned foreign boycotts. In 1977 when amendments were adopted to extend the EAA of 1969, the new antiboycott provisions specifically preempted State laws in an effort to set out a comprehensive program opposing participation by U.S. companies in unsanctioned foreign boycotts. In 1979, the EAA was extended through 1983 with the antiboycott provisions unchanged.

The statutory and regulatory restrictions barring cooperation with unsanctioned foreign boycotts are incorporated in:

- Export Administration Act of 1979, (Pub. L. 96-72, to be codified at 50 U.S.C. app. s. 2401 et seq.) and Export Administration Regulations (15 C.F.R. Part 369 (1979)). The foreign boycotts provisions were originally added by Title II of the Export Administration Amendments of 1977 (Pub. L. 95-52) to the Export Administration Act of 1969 (50 U.S.C. app. s. 2401 et seq. (1976 & Supp. I 1977)).

- Tax Reform Act of 1976, I.R.C. s. 999 and Treasury Guidelines, January 20, 1978, 43 Fed. Reg. 3454, 1978, Additional Guidelines, November 14, 1979 (44 Fed. Reg. 66272, 1979).

- Sherman Act (15 U.S.C. s. 1 et seq.). The Department of Justice sued Bechtel Corporation under the antitrust laws for boycott activity. The matter was resolved by the entering of a consent decree on January 5, 1979 (United States v. Bechtel, No. C-76-99-WAI, N.D. Cal. 1979).

- State laws. A number of states adopted antiboycott laws during 1975 and 1976. The foreign boycotts provisions of the 1977 Export Administration Amendments specifically preempted State laws, thus establishing a uniform federal antiboycott policy and program.

Export Administration Act. Section 3(5) of the EAA of 1979 describes U.S. policy with regard to foreign boycotts as follows:

"It is the policy of the United States:

- to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States or against any United States person;

- to encourage and, in specified cases, require United States persons engaged in the export of goods or technology or other information to refuse to take actions, including furnishing information or entering into or implementing agreements, which have the effect of furthering or supporting the restrictive trade practices or boycotts fostered or imposed by any foreign country against a country friendly to the United States or against any United States person; and

- to foster international cooperation and the development of international rules and institutions to assure reasonable access to world supplies."

The EAA and Export Administration Regulations (5 C.F.R. Part 369 (1979)) are designed to further these objectives through the prohibition of specified acts by any U.S. person with respect to his/her activities in the interstate or foreign commerce of the United States, and the requirement that receipt of requests to comply with, further, or support unsanctioned foreign boycotts be reported to the Department of Commerce.

The law and regulations do not seek to interfere with the sovereign right of foreign states to impose economic sanctions or participate in boycotts. Rather, the objective of the law is to discourage and, in certain instances,

prohibit U.S. persons from complying with foreign boycotts of friendly nations, particularly where such compliance impedes commerce between U.S. persons or between the United States and nations friendly to it.

The Office of Antiboycott Compliance within the International Trade Administration of the Department of Commerce administers these regulations. The Office provides informal compliance guidance to exporters and to other affected parties.

Tax Reform Act of 1976. The antiboycott provisions of the TRA seek to deny certain foreign tax benefits to U.S. companies that participate in unsanctioned foreign boycotts. Foreign tax benefits are designed to promote international trade and expand the participation of U.S. companies in the world market. To the extent U.S. companies participate in activities restricting trade in cooperation with foreign countries, they will not receive the benefit of these tax incentives.

The Department of the Treasury developed the guidelines and administers the program. The Internal Revenue Service and its auditors and investigators enforce these provisions.

Sherman Antitrust Act. The Sherman Act, while not an antiboycott law per se, was adopted to promote free competition in U.S. commerce and to prohibit conspiracies in restraint of trade. In U.S. v. Bechtel, the Justice Department sought to eliminate agreements and actions by a U.S. company in support of a foreign boycott that restricted trade between U.S. persons by applying the Sherman Act. The Antitrust Division of the Department of Justice and the Federal Trade Commission enforce the Sherman Act. Private parties may bring civil suits for treble damages and injunctive relief under it.

International Efforts. As part of the overall antiboycott policy of the United States and in an effort to reduce potential adverse effects on exports, the United States closely follows antiboycott efforts by other nations. While other nations have given serious and active consideration to measures of their own to oppose secondary and tertiary boycotts, the general pattern has been for governments simply to announce opposition to such boycotts. Legislative initiatives have been rare. A detailed study by the Congressional Research Service issued in May 1979 (THE ARAB BOYCOTT OF ISRAEL: Possibilities for European Cooperation with U.S. Antiboycott Legislation, Charlotte A. Phillips) concludes that prospects for such action in the future are not good.

Only France and the Province of Ontario, Canada, are known to have enacted any form of antiboycott legislation. Legislative hearings on bills directed against secondary foreign boycotts were held during 1979 in the United Kingdom and the Netherlands. The results of these hearings, however, have been inconclusive thus far. France enacted an anti-discrimination law in 1977, but when COFACE (France's equivalent to the U.S. Export-Import Bank) stopped processing contracts containing boycott conditions, the Government issued an administrative order halting the use of the law as an antiboycott mechanism. The order has been overturned in the French courts but the law will probably be reconsidered. In Germany, the Government will assist firms in solving boycott problems but apparently does not intend to introduce any antiboycott legislation.

Private Sector Views

The Business Community. A number of U.S. companies asserted they lost business opportunities due to the antiboycott laws and regulations. These accounts generally involve invitations to bid containing prohibited boycott terms or requests for information which cannot be provided. In addition, reports from Foreign Service posts in virtually all Arab countries (largely reflecting the views of U.S. firms operating there) indicate that the antiboycott laws negatively affect U.S. exports; however, the degree of the impact appears to vary considerably from country to country. Some posts have characterized the effects as a relatively minor problem while others suggest that the antiboycott laws represent a significant deterrent to U.S. exports. Some posts also indicate that the U.S. antiboycott laws and regulations deter some small and medium-sized businesses from engaging in export trade with boycotting countries. (Appendix C contains a more detailed discussion of Foreign Service posts' comments.)

On the other hand, some U.S. firms have successfully negotiated revisions in contract terms and requirements eliminating prohibited boycott conditions in certain countries. However, such modification is not possible in every instance or in every country. Some other firms with substantial trade with boycotting countries have indicated they are no longer receiving boycott requests regarding these transactions.

The competitiveness of American enterprises can be affected by other factors even in boycott situations. The factors include noncompetitive bids, foreign government subsidizations of exports, inexperience in dealing with customers in the Middle East, inability to maintain qualified American personnel abroad, and restrictions imposed by other federal laws.

However, the existence of multiple U.S. antiboycott programs is cited by some businessmen as troublesome. Of particular concern are the Treasury guidelines and certain activities prohibited by Treasury that are permissible under the Commerce rules. Some executives believe the antiboycott program should be consolidated in the Department of Commerce because of its expertise in foreign trade activities.

The Department of Commerce rules against furnishing certain types of information to boycotting country governments also create concern in the business community. Some businessmen believe this prohibition adversely affects the ability of American companies to respond adequately to false allegations made by foreign competitors to a boycotting country or boycott office. Without the ability to respond, businessmen believe U.S. firms may be blacklisted or lose business.

Some businessmen argue that antiboycott reporting requirements place an economic burden on companies and that these reports to both Treasury and Commerce may discourage some smaller companies from entering the export market.

The Jewish Community. Various Jewish groups have followed the antiboycott programs with great interest and believe the programs have substantially contributed to reducing the effect of foreign boycotts on U.S. commerce. The

groups also have been concerned with potential negative impacts on U.S. trade with the Mideast and issued an analysis of these impacts in May 1979. This report, prepared by the American Jewish Committee, concluded that despite a broad range of problems confronting U.S. exporters to the Mideast, sales have continued to rise dramatically and antiboycott laws could not be reliably identified as contributing to a restraint of U.S. exports.

The Jewish groups recognize some duplication in the different antiboycott programs, but stress the differences in scope and coverage of the TRA and the EAA. They regard the application of the TRA to foreign operations of U.S. companies and the potential tax penalties in that law as an effective complement to the prohibitions of the EAA. They contend that these laws operate together to protect, with minimal costs, the rights of U.S. persons to trade freely throughout the world.

Organized Labor Views. Organized labor has strongly and consistently supported legislation to oppose participation by American firms in unsanctioned foreign boycotts. Labor has also supported negotiations to resolve differences and misunderstandings brought about by such boycotts.

Boycotting Country Views. Several boycotting countries have made important modifications in their programs which have reduced the conflict between American laws and their boycott requirements. They now accept shipping certificates which list the national origin of goods in positive, nonexclusionary terms instead of the negative, exclusionary certificates of origin previously issued. Almost all boycotting countries now delete, from government contracts clauses, a requirement of compliance with the host country's boycott laws. The boycott clause has given way to a permissible clause acknowledging the applicability of the host country's laws. Many government contractors have replaced the requirement that American contractors agree to refrain from employing blacklisted suppliers or sub-contractors with a provision which reserves for the boycotting country the exclusive right to make the unilateral and specific selection of suppliers and sub-contractors. This is an acceptable practice under U.S. antiboycott laws, provided the contractor does not supply his client with a boycott-based bidders' list.

These modifications do not, however, cover all business situations in these countries. In addition, several boycotting countries continue to impose boycott conditions incompatible with U.S. regulations, and thereby inhibit U.S. business opportunities in these countries.

The result of the modifications made by boycotting countries has been, in some instances, to increase exports by permitting companies that would not comply with the boycott to do business in the Arab world.

Private Sector Suggestions

The Business Community. Some members of the business community suggest that unwarranted differences among the three antiboycott programs should be eliminated and antiboycott enforcement should be consolidated within the Department of Commerce. While there were a few suggestions to reduce

substantially the scope of the law and to reduce the reporting obligation, most comments reflected an understanding and support of the policy objectives of the antiboycott programs.

Some respondents recommended that the Treasury guidelines be made congruent with the Commerce Department's regulations and enforcement procedures with respect to: pre-law boycott commitments; generalized law compliance clauses; implied agreements arising out of undertakings to certify fact; and, implied agreements arising from unilateral declaration.

Another suggestion recommended amending Section 8(a)(2) of the Export Administration Act of 1979 to permit U.S. firms to refute specific erroneous information which has prompted or may prompt blacklisting action. This suggestion, though it would create a hard-to-police loophole in the "furnishing information" prohibitions of the antiboycott laws and regulations, would allow U.S. firms to furnish nondiscriminatory factual information to boycott authorities. The information conveyed would be limited to refuting mistaken beliefs or factual suppositions by foreign authorities.

The Jewish Community. The Jewish groups understood the desire to reduce conflicting and overlapping antiboycott programs, but stated that harmonization should not result in a reduction in scope or coverage currently provided by the two laws. They recommended continued monitoring of the programs' administration to identify an effective means of unifying the antiboycott effort.

Current Status and Continuing Developments

Lessened Differences Between Commerce and Treasury Regulations. Despite fundamental differences in approach and coverage, Commerce and Treasury have worked very closely to harmonize their regulations to the greatest extent possible. Constant discussion on new issues between the two Departments and continuing efforts to find common ground on pre-existing issues have led to many informal and formal resolutions of differences. Two recent examples are the treatment of shipping and insurance clauses in Saudi Arabian letters of credit and the handling of the termination of Egyptian participation in the boycott of Israel.

Prior to November 1979, Treasury regarded shipping and insurance clauses contained in letters of credit from Saudi Arabia as evidence of participation in a boycott transaction which led to the denial of foreign tax benefits. Commerce interpreted the same language as not constituting a violation of its regulations. After numerous meetings in Washington and Saudi Arabia, Treasury and Commerce resolved their differences and published notice of uniform treatment of the language (Treasury at 44 Fed. Reg. 66272, November 14, 1979; Commerce at 44 Fed. Reg. 67374, November 26, 1979).

As a result of the Camp David accord, Egypt terminated its participation in the Arab League boycott of Israel. Both departments recognized this positive step and coordinated their official recognition of the action and its effect under the antiboycott regulations (Treasury at 45 Fed. Reg. 23574, April 7, 1980; Commerce at 45 Fed. Reg. 29010, May 1, 1980).

Unresolvable Differences Between Treasury and Commerce Regulations. The statutory framework of the TRA and the EAA laws precludes the resolution of all differences. The basic jurisdictional differences (the TRA applies to taxpayers and their activities worldwide, the EAA affects only U.S. persons and their activities in U.S. commerce) hinder a unified approach. Other differences include the interpretation of certain contractual terms involving boycott conditions. Treasury regards some phrases as not constituting an agreement under their regulations while Commerce treats the same language as a prohibited term. (Compare Treasury Guidelines H-3 and H-4, January 25, 1978, 43 Fed. Reg. 3454 and 15 C.F.R. 269.2(a) agreement to refuse do business, examples (iii) - (vi) (1979)). Another difference involves Commerce's exception which permits bona fide residents of boycotting countries to comply with otherwise prohibited requirements of those countries' laws while Treasury regulations view such action as impermissible (See 15 C.F.R. 369.3(f)(1979)). These differences require legislation if they are to be resolved.

Bilateral Negotiations. As previously discussed, bilateral negotiations have had mixed success. Discussions are continuing with several boycotting countries in an effort to obtain clarification of ambiguous conditions. As new contractual or commercial terms evolve, these discussions will continue. Discussions with competitor nations to coordinate responses to the boycott have had limited success and have little prospect for improvement.

ANTITRUST LAWS

Definition of the Potential Disincentive

Antitrust laws can directly affect the operations of American companies abroad. Every year, American businesses enter into thousands of international transactions that may raise possible antitrust issues. These include overseas distribution agreements; overseas joint ventures for research, manufacturing, construction or distribution; patent, trademark, and know-how licenses; distributorship contracts, or mergers with foreign firms; and raw material procurement agreements or concessions.

Many, perhaps most, of these transactions do not raise serious antitrust enforcement concerns. Uncertainty about the application of the antitrust laws to these transactions, however, may cause businesses to abandon or limit questionable transactions, or to embark upon unnecessarily restrictive transactions which would not be undertaken if the antitrust risk were more clearly perceived. The effect may be an unnecessary constraint on fully exploiting export opportunities.

Statutory Authority and Policy Objectives

The U.S. antitrust laws are the foundation of our broad national commitment to an economy based on competition. Competitive policies lead to efficiency in the allocation of resources by providing consumers with the goods they

desire at the lowest price that efficient business operations can profitably offer. Competitive policies include forbidding artificial restraints on the operation of market forces and preventing individual firms from dominating markets so that, for example, they can raise prices above competitive levels.

The most relevant antitrust provisions are Sections 1 and 2 of the Sherman Act, enacted in 1890. Section 1 bars "every contract, combination...or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations...." Section 2 makes it a violation of the law to "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations..." In addition, Section 7 of the Clayton Act of 1914 prohibits anticompetitive mergers between firms engaged in U.S. domestic or foreign commerce.

The Antitrust Division of the Department of Justice and the Federal Trade Commission are the federal agencies responsible for enforcing the antitrust laws. In addition, any private party purportedly injured by what may be an antitrust violation can sue for injunctive relief or for treble damages.

Compliance with the antitrust laws presents for business a task very different from that presented by many of the other legal rules that affect international transactions. Antitrust statutes do not provide a checklist of specific, detailed statutory requirements, but instead set forth broad principles of general application. Antitrust concerns very often are not so much with the particular form of a transaction, but its surrounding circumstances. Although certain types of agreements are regarded as illegal per se -- notably, price-fixing and territorial allocations -- most restraints are tested by a full inquiry into whether they will have a significant adverse effect on competition, what the justification for them is, and whether that justification could be achieved in a less anticompetitive way (the so-called "rule of reason" test). Even sophisticated business executives may be unable to determine the legality of a proposed transaction without the extensive advice of antitrust counsel.

A special antitrust exemption is provided under the Webb-Pomerene Act for the joint export activities of an export association of American producers, provided that the association does not: (i) artificially or intentionally restrain U.S. domestic trade or affect U.S. domestic prices; or, (ii) restrain the export trade of any U.S. competitor of the association. The Webb-Pomerene Act applies solely to the export of "goods, wares or merchandise" and, therefore, does not explicitly extend to service and licensing transactions. To be eligible for the exemption, an association must be limited to domestic firms.

The application of U.S. antitrust laws to overseas activities raises some difficult questions of jurisdiction. There is, for example, the question of subject matter jurisdiction: whether U.S. antitrust law applies to overseas acts which affect U.S. commerce. The acts of U.S. citizens in a foreign nation normally are subject to the law of the country where they take place. Yet U.S. law in general, and U.S. antitrust laws in particular, are not limited to transactions which take place within our borders. When foreign transactions have a substantial and foreseeable effect on U.S. commerce, they

too are subject to U.S. law. Analysis of whether there is an impact on U.S. commerce sufficient to confer jurisdiction generally involves a factual analysis of the purpose and effect of the act. Enforcement action may sometimes be limited by the availability of affirmative defenses such as: (i) the act of state doctrine; (ii) the defense of foreign governmental compulsion; and, (iii) other claims based on considerations of comity.

The Antitrust Division has stated that its enforcement activities have two major purposes with respect to international commerce. The first is to protect the American consuming public by assuring it the benefit of competitive products and ideas produced by foreign competitors, as well as domestic competitors. The second enforcement objective is to protect American export and investment opportunities against privately imposed restrictions The concern is that each U.S.-based firm engaged in the export of goods, services, or capital should be allowed to compete on the basis of price and quality and not be shut out by restrictions imposed by more powerful competitors. An important objective of these policies is to enhance U.S. export opportunities.

Private and Public Sector Views and Suggestions

The view that antitrust laws act as an export disincentive is not a new concern. An FTC report to Congress in 1916 concluded that "doubt and fear as to legal restrictions prevent Americans from developing equally effective organizations for overseas business and that the foreign trade of our manufacturers and producers, particularly the smaller concerns, suffers in consequence." (Report of the House Committee on the Judiciary on H.R. 1735, H.R. Rep. No. 1118, 64th Congress, 1st Session 3, 1916.) This report proposed enactment of what became the Webb-Pomerene Act, pointing out that:

> "There are many great lawyers who think there is nothing in existing laws to prevent American manufacturers and exporters from combining in whatever manner they please in foreign countries to dispose of their products; but other lawyers take the position that there is doubt about this power, and in order to absolutely clarify the situation and in common fairness to our American exporters, we present this bill."

Prior private and Congressional studies have attempted to establish adverse effects of antitrust laws on American exports. For example, the report of a task force of the U.S. Chamber of Commerce in 1974 concluded that, in selling goods and services overseas, U.S. exporters and contractors are unfairly and discriminatorily restricted by U.S. antitrust laws. A study by the National Association of Manufacturers similarly concluded that U.S. companies are handicapped in their international competitive efforts as exporters and investors by the extraterritorial application of American antitrust statutes. A Bureau of Mines report, however, concluded that antitrust laws were not a significant impediment to the exports of the companies studied.

In addition to reviewing these studies, information was sought directly from both the public and private sectors. In response to its request for comments pertaining to export disincentives, the Department of Commerce received approximately 35 comments on the effects of the antitrust laws. Some of the

associations or groups, such as the Emergency Committee for American Trade and the U.S. Chamber of Commerce, represent the views of numerous companies with significant export activities. These comments indicate that American antitrust laws are perceived as a significant disincentive to U.S. exports. The most significant problems reported are summarized below.

First, the Webb-Pomerene exemption is said to inadequately address the needs of many exporters, particularly small and medium-sized firms.

Second, foreign joint ventures and bidding consortia are said to be deterred by uncertainty about the "rule of reason" standard. Some commenters argue that existing enforcement policy does not consider the ability of U.S. firms to remain competitive in international markets or the realities of "big ticket" projects abroad.

Third, some companies allege that they avoid entering licensing agreements with foreign companies because the antitrust laws prevent them from securing contract provisions that make exporting worthwhile. As a result, these firms argue that the prospective foreign licensee will substitute a foreign licensor for the American company or is encouraged to develop independently a technology to be competitive with the U.S. firm rather than purchase it from that firm.

For example, the antitrust laws prohibit an American firm from entering into a "know-how" license with a foreign firm that unreasonably restricts the importation into the United States of products manufactured under the license by the foreign company. Likewise, an American company cannot insist upon an exclusive grant-back of any technology developed by the foreign firm based on the underlying know-how or technology supplied by the U.S. company.

These companies argue that exports are hindered in several ways. First, the American company loses an opportunity to increase U.S. exports of related capital equipment to the foreign licensee. Second, the U.S. licensor does not receive royalty payments that benefit our balance of payments. Finally, American companies cannot obtain the most recent foreign technological developments and, therefore, lose their competitiveness in world markets.

A fourth major concern of some firms is that antitrust uncertainty chills the conduct of U.S. exporters. The nation's antitrust laws each have, by their terms, some application to the foreign commerce of the United States. Neither the statutory language nor the legislative history of these laws offers significant guidance, however, as to how antitrust enforcement should operate in the distinctive and sensitive area of international business. Antitrust legislation has provided the enforcement agencies and the courts with little guidance and much leeway in developing such critical concepts as subject matter jurisdiction, applicable defenses, and the degree of importance attached to U.S. trade and foreign policy.

A further and related expressed concern of some firms involves three of the most difficult legal topics: sovereign immunity, act of state, and foreign compulsion. All relate to the special problems created when the commercial activities in question are those engaged in, sanctioned, or required by foreign governments. These activities are sometimes quite deliberate

deviations from competitive principles. Moreover, some of our oldest trading partners strongly object to the extraterritorial application of our antitrust laws.

These governmental disputes can create uncertainty in foreign commercial activities because American firms cannot clearly determine the outer boundaries, functionally or geographically, of the antitrust laws' reach. American firms may also be obliged to comply with host country business practices which could lead to antitrust liability. As a result, some American multinational enterprises suggest that these increasingly complex jurisdictional disputes may make doing business in certain foreign markets too risky.

Another problem raised by many firms is that they believe that U.S. antitrust policies hinder effective responses in the modern world economy. In particular, some American companies assert that where foreign cartels exist it may be necessary and appropriate to encourage United States cartel-like arrangements to equalize bargaining positions. This is especially true in those industries where foreign cartels, boycotts and other restrictive activities are operated by or with the approval of state-owned enterprises or foreign governments.

Interested parties other than exporting companies also share these views. The President's Export Council observed that antitrust enforcement hinders exports because of (a) uncertainties about the Government's prosecutorial intentions, (b) the regulation of foreign subsidiary operations even where U.S. consumers are not significantly affected by those operations, and (c) the growing number of international disputes over extraterritorial enforcement of U.S. antitrust laws.

The National Governors' Association strongly criticized the operation of the antitrust laws in international trade. It identified extraterritorial jurisdiction, overlapping enforcement responsibilities, and uncertainty as the most serious export disincentives caused by the antitrust laws.

These issues have recently come before Congress. Senator Javits has proposed consideration of several international antitrust issues that affect U.S. competitiveness in world markets. Senator Mathias has introduced a bill, S. 1010, to establish a Commission to study the international application of U.S. antitrust laws. The Commission would be directed to examine the following issues: facilitation of joint ventures; problems in dealing with foreign governments; clarification of the application of antitrust laws to international transactions; role of private antitrust lawsuits; and facilitation of licensing of technology abroad.

Administration Actions

Domestic Actions. Most of the complaints about the inhibiting effect of the antitrust laws on exports are either general observations or comments upon the uncertainty created by those laws. Specific instances of lost export opportunities resulting from a demonstrated substantive antitrust prohibition were not reported in response to the Federal Register request for

information. This absence could in some cases be attributable to an established pattern of entering into new business that avoids even consideration of business opportunities on the margin of antitrust legality. It could also be due to the reluctance of businesses to discuss their antitrust problems or, in the case of some firms, to the absence of any significant inhibiting effect on exports.

Nonetheless, some businesses are uncertain about the application of the antitrust laws to export activities. Uncertainty can inhibit exports as effectively as a regulation that clearly prohibits them. For these reasons, several steps have been taken to clarify the application of the antitrust laws to export activities.

The Department of Justice first addressed these concerns in its January 1977 "Antitrust Guide for International Operations" which it prepared after extensive discussion with the President's Export Council. The Guide presents a general statement about the application of U.S. antitrust laws to foreign commerce. The general discussion is followed by fourteen hypothetical problems, most of which were posed by representatives of the business community. Justice drafted the Guide, in large part, to respond to their concerns.

The President's 1978 Export Policy statement concluded that exporter uncertainty over the applicability of the antitrust laws in export trade could cause companies to refrain from joint export activities. At the President's direction, the Department of Justice undertook to step up efforts to clarify the reach of the law.

Justice almost immediately issued new guidelines to exporters undertaking to respond to export related requests for clearances under its Business Review Procedure (28 CFR 50.6) within thirty business days.

As a further clarification effort, Justice and Commerce jointly sent a letter to 35,000 businesses identified by Commerce as actual or potential exporters, calling their attention to the streamlined business review for exports and enclosing a copy of the "Antitrust Guide for International Operations."

The Administration has taken other steps to dispel persistent misconceptions and uncertainty with respect to many of the adverse effects on exports identified by the private sector. These include:

Joint Ventures -- Because the principal purposes of the antitrust laws in foreign commerce are to protect consumers in U.S. markets and to protect American exporters in overseas markets, the Justice Department stated in the Guide, and has repeated in many public statements that:

> "Normally, the Department would not challenge a merger or joint venture whose only effect was to reduce competition among the parties in a foreign market, even where goods or services were being exported from the United States. The rules are even less stringent where a limited "one shot" type of venture is involved....Such short-term consortia are useful where large risks or dollar amounts are involved (as with a multiple bank loan or securities underwriting) or where complementary skills are required (as with the typical construction joint venture)." (Emphasis added.)

The Guide makes clear that where there is no reason to suspect that the joint venture or the export project would eliminate competition in the U.S. domestic market or foreclose export opportunities for nonparticipating U.S. firms the project does not raise an antitrust problem.

Moreover, as the President pointed out in his 1978 Export Message, no joint venture among U.S. citizens to sell abroad to foreigners has been challenged under the antitrust laws in over 20 years. Joint activities have often been approved by the Justice Department. For example, in May 1976, the Antitrust Division gave its approval to a three-firm syndicate desiring to sell hydro-electric equipment for a project in South America.

These efforts at clarification appear to be successful. A 1979 study commissioned by the Bureau of Mines concluded that "the recent Justice Department guidelines have been reasonably effective in allaying fears of U.S.-based multinational non-fuel producers participating in joint ventures abroad."

Export associations and exporting trading companies -- Helpful as the Antitrust Guide may be, it cannot and was never expected to answer antitrust questions in the myriad situations faced each year by business. Recognizing this, the Administration supports bipartisan legislation that would clarify the application of the antitrust laws to export trade activities by changing the Webb-Pomerene Act.

The Administration endorses the concept of certifying antitrust exemptions for export trade activities while not undermining the domestic application of the antitrust laws.

For example, Title II of S. 2718 contains a certification procedure by which export trading companies (and traditional export associations) can obtain assurance that their activities will not expose them to antitrust liability. The need of businesses is for a clear antitrust immunity for export trade activities that will protect them, rather than for changes in the Sherman Act itself. Title II has been carefully crafted to provide checks on anti-competitive developments within the United States.

Title II establishes a procedure for an export trading company or export association to present to the Department of Commerce a reasonably detailed statement of the export trade activities it plans. The Commerce Department, in consultation with the Attorney General and the Federal Trade Commission, would certify these activities as immune from the antitrust laws if they would promote export trade and would not result in a substantial lessening of competition within the United States.

Once certification was granted the certified entity would be exempted from antitrust liability for the activities described in the certification. The immunity, however, would not extend to activities not covered in the certification.

Enactment of legislation such as Title II of S. 2718 would provide many exporters with an opportunity to guarantee themselves immunity from the antitrust laws before they undertake particular export activities. Title II would also make the export services eligible for a Webb-Pomerene exemption.

International Actions. The Administration also has undertaken a series of actions in multinational forums and in bilateral discussions to further the dual goals of competition and export development. The success of these and future negotiations could reduce the instances where U.S. firms are faced with foreign demands that conflict with antitrust principles.

The United States has participated in a major effort under the auspices of the United Nations Commission on Trade and Development (UNCTAD) to achieve an international code of conduct concerning restrictive business practices (RBP), and also has been involved in another major effort to develop a code concerning the transfer of technology (TOT). The UN Conference on RBPs concluded successfully in April 1980 by negotiating an RBP Code. The UN General Assembly is expected to adopt it as a resolution at its fall session. Discussions on the TOT Code are continuing.

Similar efforts are being made by the Organization for Economic Cooperation and Development (OECD), which has taken steps to foster greater cooperation in antitrust enforcement among the antitrust agencies of various member states. Members of the General Agreement on Tariffs and Trade (GATT) also are considering what action to take to reduce international restrictive business practices.

In the past two years, bilateral efforts have been made to improve reciprocal cooperation, or to reduce conflicts arising out of foreign anticompetitive actions. Contacts and discussions have been undertaken with Canada, Australia, Japan, the United Kingdom, and antitrust authorities of the EEC and an executive agreement has been entered into with the Federal Republic of Germany.

CHAPTER 10. ENVIRONMENTAL AND SAFETY PROGRAMS AND REGULATIONS

INTRODUCTION

As part of the effort to provide a comprehensive survey of export disincentives, this review covers selected pieces of domestic legislation that may have an indirect effect on U.S. exports. The selected laws are designed to advance the public welfare by improving environmental quality, product safety and worker health -- objectives that have become important and accepted social goals in the United States and other developed countries. These laws are considered in this review because, while the domestic implications of pursuing these goals are recognized, their implications for exports are not. Their potential effects on exports have not been fully explored largely because such effects are indirect and difficult to isolate.

The laws discussed in this section include the Clean Air Act, Federal Water Pollution Control Act, Toxic Substances Act, Consumer Product Safety Act, and Occupational Safety and Health Act. The discussion is not intended to be an evaluation of the general policy objectives of these widely supported laws and regulations, but instead an examination of their relationship to exports. Meeting any objective entails certain costs, and the costs associated with one objective (such as providing clean water) may have a negative impact on another objective (such as increasing exports).

These laws result in regulations which may raise the costs of production by imposing delays via the regulatory process and by requiring changes in the production process, the products themselves, the work place, or the distribution, use or disposal processes. To the extent that these additional costs are incorporated in export prices, they may have a negative impact on the demand for U.S. exports. However, some regulations may reduce long-run costs. For example, by reducing work days lost through work related illness and injuries, measures to protect the health and safety of workers can lower production costs over the long run.

Increased production costs caused by environmental, health and safety measures also are sometimes alleged to be an important reason for the transfer of some U.S. production facilities to other less regulated countries. Depending on where the output from these overseas facilities is sold, such transfers could either increase U.S. imports or increase the competition faced by U.S. firms in third country markets -- thereby reducing the potential level of U.S. exports that would have existed in the absence of the transfers.

Environmental and safety regulations may also affect U.S. exports through the procedures controlling the export of products posing environmental or safety hazards. Exports of some hazardous products are flatly prohibited. While certain other types of hazardous products may be exported, the cost or complexity of the procedures may discourage some companies from exporting such products. This type of potential effect is discussed in Chapter 7 of this Review, under "Restrictions on Exports of Hazardous Substances".

Private Sector Views

Private sector concern with environmental and safety legislation (expressed in replies to the Federal Register notice and at the private sector conferences) is not as great as in areas which directly affect exports. Businesses supported the social goals of the legislation and expressed their willingness to share the cost burdens necessary to achieve those goals. Widespread concern was articulated, however, regarding the effects of agency regulations implementing regulatory laws.

Firms maintained that agency regulations are overly complex and inflexible, that they often are not justified by scientific and technical evidence, and that they result in excessive private sector costs relative to the benefits gained. One Federal Register response stated, "The heart of the problem lies with excesses: i.e., with the attitude that scientific and medical facts need not be substantiated to justify regulations and that the indiscriminate imposition of costs to achieve preconceived goals is irrelevant." Companies felt that improved public welfare and reduced regulatory burdens on the private sector are compatible and, indeed, complementary goals, both of which should be reflected in the decisions and actions of regulatory agencies.

In its comments, the AFL-CIO took a somewhat different approach. While expressing general support for actions which would expand exports, the union questioned the appropriateness of considering the domestic laws and regulations discussed here as potential export disincentives. The AFL-CIO strongly supported the policy goals of the laws and urged their effective implementation. Concern was expressed that export promotion might be used as an excuse for attempts to weaken the worker, consumer and environmental protections provided under these laws.

Specific suggestions. A number of firms stated that regulatory requirements and associated costs affected their export competitiveness. One company recommended that export impact statements be an integral component of all regulatory measures, and that review of regulations for adverse export consequences be an ongoing process. Another company urged that regulations should follow universally accepted standards or conform with multilateral agreements wherever feasible. Unilateral standards and constraints were perceived as inappropriate burdens on exporting. It was also suggested that special consideration be given to regulatory impacts on small and medium-sized businesses, particularly where the cost of regulatory compliance might completely discourage potential exporters.

Summary of Findings

Large costs are associated with meeting environmental and safety regulations. The Council on Environmental Quality has estimated that U.S. pollution abatement and environmental quality expenditures totaled $47 billion in 1978, and will rise to $94 billion in 1987 (in 1978 dollars). The incremental private sector cost of meeting air and water pollution control regulations, the most expensive government regulations, is expected to total $355 billion in the ten-year period, 1978-1987. Expenditures such as these appear to have a broad impact on the economy as a whole, and specific industries and firms in particular.

Cost increases such as these can raise the price of many U.S. exports over what they would otherwise be, and at least in theory can reduce the attractiveness of U.S. goods in world markets. The information available for this review, however, did not indicate that such cost increases have actually been a significant factor deterring U.S. exports. As noted, exporter responses to the Federal Register notice showed comparatively little concern for compliance costs as being an export disincentive.

For most exported products, the added costs of compliance with such regulations are apparently a relatively small part of the total costs of production. Additionally, other industrial nations also maintain environmental and safety regulations; competitors in other industrial countries face similar types of costs. While these costs in other countries are generally less than in the United States, such is not always the case. For example, while private sector investment in controlling pollution was 3.4 percent of total private sector investment in the United States in 1974, such pollution control investment accounted for 4.6 percent of private sector investment in Japan.

There are some countries, generally less-developed countries, that have comparatively few environmental and safety regulations. The review produced some indications that U.S. environmental and safety regulations have influenced some companies to produce in such countries rather than in the United States. No quantification could be made, however, and more informaion is needed. From the little information that was available, it did not appear that U.S. regulations were a major factor in decisions to locate facilities abroad rather than in the United States. One exception, though, is the pharmaceutical industry. There are some indications that present U.S. law and regulations may have been a significant factor in pharmaceutical company decisions to construct plants abroad rather than in the United States.

For the most part, however, the concerns exporters have with environmental and health regulations are the same concerns that producers for the domestic market have. There are some instances in which regulations appear contradictory to companies, or hard to understand, or duplicative. There are also standards which do not seem optimal to companies. These types of issues, however, need to be dealt with through the existing processes of examining U.S. regulations. Indeed, these issues generally could not be examined separately for exporters, since most companies that export also produce for the domestic market from the same production lines.

Therefore, the export consequences of regulatory actions should be explored as an integral part of the regulatory reform process, so that desirable changes can be identified and implemented. The Administration has established a Regulatory Reform Program, which seeks to eliminate unneeded regulations and to eliminate unnecessary burdens imposed by those regulations that are needed.

FEDERAL AIR AND WATER POLLUTION ABATEMENT PROGRAMS

Definition of the Potential Disincentive

The past decade has seen the development of a significant body of Federal legislation and regulations dealing with the control of air, water, and other forms of pollution. The vast bulk of these regulations is administered by the Environmental Protection Agency (EPA) pursuant to the Clean Air Act, as amended, and the Federal Water Pollution Control Act, as amended. These Acts grant broad powers to the EPA to establish and enforce environmental standards and to administer Federal laws on environmental control. While the goals of these controls are of unquestionable benefit to the well-being of the nation, their achievement imposes significant costs on U.S. industry. The imposition of these costs on manufacturing in this country could act as a potential disincentive to U.S. exports, or an incentive to U.S. imports, to the extent that pollution abatement expenditures in foreign nations might be less costly to their industries.

Statutory Authority and Policy Objectives

In administering the Clean Air Act the EPA establishes:

- National standards for ambient air quality, primarily by setting standards for sulfur dioxide, particulate matter, hydrocarbons and photochemical oxidents (ozone), nitrogen oxides, and carbon monoxide.

- National emission standards regarding new stationary sources of pollution, hazardous air pollutants, motor vehicle exhausts and aircraft emissions, and motor vehicle fuels and additives.

- Prevention of significant deterioration (PSD) criteria which limit the growth of pollution in areas with better-than-mandated air quality.

The EPA delegates considerable responsibility to the States for the development of plans for achieving the standards, but if a State fails to submit an adequate plan the EPA will substitute its own. In regions not meeting air quality standards the Agency may be required to enforce a moratorium on major new construction.

Pursuant to the Federal Water Pollution Control Act, the EPA provides for an interim goal of water quality suitable for the protection and propagation of fish and wildlife and for water recreation by July 1, 1983, and for a national goal of complete elimination of discharged pollutants into navigable waters by 1985.

In administering the water program, the EPA:

- Prepares comprehensive programs for preventing and eliminating pollution in navigable and ground waters, and authorizes the appropriation of funds to assist States in administering programs.

- Operates a National Pollutant Discharge Elimination System (NPDES) permitting program.

- Sets effluent limitations for industries discharging directly into navigable waters and pretreatment standards for discharging into publicly owned sewage treatment plants.

Effects of the Regulations

The costs of compliance with these EPA air and water pollution abatement regulations are substantial, and on an industry-wide basis they are generally the most expensive Federal regulations to meet. In their 1979 annual report the Council on Environmental Quality (CEQ) estimated that incremental private sector spending on air and water pollution control programs in 1978 totaled $21.1 billion -- $11.5 billion for operation and maintenance expenditures and $9.6 billion for annual capital costs (interest and depreciation). These "incremental" costs are those made in response to Federal environmental legislation beyond those that would have been made in the absence of that legislation. By 1987, these costs were estimated to more than double to $47.9 billion (in 1978 dollars).

An Arthur Anderson study of 48 selected large corporations, Cost of Government Regulation Study for the Business Roundtable, found that EPA regulations accounted for 77 percent of incremental expenses for compliance with health, safety, environmental and pension regulations in 1977. Of the $2,018 million these firms spent meeting EPA regulations, 94 percent was for air and water programs. EPA-imposed costs were divided up into capital spending, 38 percent, direct operating and administrative expense, 31 percent, product costs (mostly automobile pollution equipment), 27 percent, and research and development expenditures, 4 percent.

Economic Impact. The large expenditure of funds on antipollution projects, along with the other dislocations caused by environmental controls (e.g., reallocations of investment in R&D funds, technological constraints), can have substantial consequences on specific industries and a broad impact on the economy as a whole. While direct pollution abatement expenses are concentrated in a few industries -- primary metals, chemicals, pulp and paper, oil, and electric utilities -- the increased costs of energy, transportation, and raw materials passed on by these and other affected industries are reflected throughout the economy.

In a report prepared by Data Resources Incorporated (DRI) for the EPA and CEQ, The Macroeconomic Impact of Federal Pollution Control Programs, 1978 Assessment, incremental pollution control expenditures were found to have three principal effects on the U.S. economy:

1. "The inflation rate has been made higher."

2. "The real level of economic activity has been stimulated by the increased investment resulting from the requirements, but by 1981 the impact is expected to become negative, as the reduced productivity and higher inflation take their toll."

3. "Employment opportunities are found to be greater throughout the 1970 to 1986 period. Jobs are created in the pollution control equipment and construction supplying industries as well as in maintaining and servicing the additional equipment."

With regard to the projections of higher rates of domestic inflation the report states that:

"The incremental pollution control expenditures have contributed to inflation by imposing higher production costs on firms which are passed through directly and indirectly into higher product prices. The higher costs stem from two sources: (1) unit labor costs are raised, as additional maintenance and operation staff must be employed, with no resulting increment in output; (2) investment requirements to produce a given unit of output are also raised by the mandated pollution-related expenditures. By 1986, wholesale prices (on the commodity basis) will be 4.2 percent higher than they would have been without these incremental expenditures. This translates into an average change of 0.3 percentage points per year."

Everything else being equal, economic dislocations of this magnitude would be likely to have a measurable impact on trade. In the DRI study it was stated that:

"The impact of the pollution abatement requirements on the U.S. trade balance reflects the combined influence of many factors. Higher domestic prices serve to put U.S. goods at a competitive disadvantage in our export markets, while making imports relatively more attractive. In the earlier years, the higher domestic investment also works to increase import demands. Later on, the reversal of the real GNP results partially mitigate this influence. The full model simulation indicates that real imports rise to a peak of 3.3 percent higher then taper off to 0.9 percent above by 1986. Real exports fall to 0.8 percent below what they would have been without the incremental antipollution expenditures."

The DRI study goes on to analyze the effects of various Governmental policy responses and alternate levels of antipollution expenditures. In each case, however, inflation is higher than it would have been without the incremental pollution control spending, and the trade balance is worsened by reduced exports and increased imports. Although subject to the normal limitations of econometric analysis and questions about the assumed levels of specific variables, this study supports the assumption that current levels of antipollution spending can, in isolation from offsetting international actions, lead to a small but noticeable deterioration in U.S. foreign trade.

Pollution Abatement Abroad. A major consideration in analyzing the true impact of Federal environmental control regulations on U.S. trade, however, is the extent to which our major trading partners and/or competitors impose similar regulations on their industries. While generalizations are difficult to make, it does appear that, at least among the OECD nations, the response to pollution problems abroad is increasingly similar to that in the United States. In the less developed nations, on the other hand, pollution control still has a much lower public priority in relation to concerns for economic

growth. These nations tend not to be as important trading partners, however, and great differences in other factors such as labor costs, government subsidies, etc., would probably overwhelm production cost differences attributable to differing pollution regulations.

A number of general observations are apparent in looking at the pollution programs of the developed countries. First, it should be noted that air and water pollution in Japan and OECD countries in Europe is as bad as or worse than in the United States, and that there is a broad and growing awareness of the problem. Secondly, these nations for the most part have appropriate institutions and regulations to approac. these problems at a level comparable to the United States. Perhaps most important, all members of the OECD ascribe in concept to the "polluter pays principle", which requires that the costs of pollution abatement measures be borne by polluters, not governments. This measure was agreed upon by OECD members in 1972, specifically to prevent trade distortions which could have resulted if pollution costs were paid by industry in some countries but "subsidized", in effect, elsewhere by governments.

Data from which quantitative comparisons of various countries' private sector antipollution expenses can be made are incomplete. From the data available, however, it appears that U.S. firms, on average, spend more for pollution control than most other major nations, with the exception of Japan. The following estimates were included in the 1979 OECD report, The State of the Environment:

Investment by Private Sector in Controlling Pollution
Selected Countries, 1975

	% of GDP	% of Private Investment
United States	0.44	3.4
Japan	1.00	4.6
Denmark	0.17	0.9
Finland	0.22	0.9
France	0.28	1.4
Germany	0.32	1.9
Netherlands (1974)	0.34	1.9
Norway	0.22	0.7
Sweden	0.19	1.1
United Kingdom	0.29	1.7

These figures are fairly rough estimates which may not be completely comparable due to variations in statistical procedures. They also do not include the complete range of direct and indirect costs associated with pollution expenditures. Nevertheless, they indicate that, while foreign expenditures tend to be lower on average than in the United States, they are still substantial. Some of the differences may have narrowed further in more recent years due to the effects of newer and stricter regulations coming on stream abroad. However, some country-to-country variation will probably always be maintained simply because the severity of pollution differs among these nations based on climate, geography, population and industrial densities, types of industry, etc. It is interesting to note that the

apparently high level of pollution control expenditures in Japan did not prevent that country from having the largest positive trade balance in manufactured goods trade in the world in 1975, and every year since.

Private Sector Views

By virtue of being an indirect export disincentive, the effects of pollution abatement regulations have not been mentioned in great or specific detail in many private sector responses related to this study. More frequently mentioned in these responses, and widely discussed elsewhere, were concerns about the costs of government regulation in general, air and water pollution regulations in particular, and their subsequent effects on inflation and ultimately on international competitiveness.

Specific industry objections to antipollution regulations included concerns about the exact level of individual standards and questions about the scientific basis on which they were determined. This was a most important concern in instances when small increments of additional pollution control became increasingly more expensive to attain.

Concerns have also been expressed that lawmakers and regulators do not consider the indirect costs associated with given standards and/or methodologies, which may lead to significant productivity losses or other inefficiencies. Furthermore, regulations in one area may conflict with other regulations or priorities, such as in cases when they lead to increased energy consumption or a switch from domestic to foreign energy supplies.

Aside from the technical merits and cost effectiveness of the regulations, frequent complaints were voiced by businessmen over the administration of the standards. Among these were the difficulties and costs arising from rapidly changing standards, short lead times given to implement standards, and long delays in receiving permits or other necessary approval for projects which may tie up large amounts of capital and other resources.

Many suggestions were also frequently heard for reducing the costs of compliance with pollution abatement laws. In general, industry favored more rigorous cost-benefit analysis before setting or raising standards, taking into account a wide range of indirect costs, and then having a greater degree of flexibility in achieving the necessary levels of environmental quality. Business also strongly favored regulatory reform to clarify and simplify regulations, eliminate overlapping or contradictory regulations, and generally reduce the paperwork and administrative costs associated with attaining given standards.

Labor groups, on the other hand, voiced strong support for pollution regulations as they exist, and did not think it appropriate, or necessary, to adjust them due to foreign trade or other economic considerations. They were concerned, however, that groups opposed to strict environmental controls would use these issues to weaken antipollution programs.

Current Status and Continuing Developments

In summary, air and water pollution abatement costs appear to add to producer costs in the United States -- probably to a greater extent than in most other developed countries. Assuming all other costs of production to be equal, these relatively higher costs could make U.S. industry less competitive in world markets and, therefore, act as a disincentive to U.S. exports. However, there is little actual evidence that these compliance costs alone have been a significant determinant of international trade flows.

Furthermore, a complete analysis of the economic costs of pollution abatement requirements should include at least a qualitative description of the associated side benefits such as lower health care costs. Then the costs must, of course, be weighed against the wide range of frequently intangible benefits which these laws help to achieve in improving the overall quality of our lives.

The benefits and goals of pollution control regulations appear to be of such overriding importance that removal or significant relaxation of environmental standards is not a likely response to their economic costs. There are, however, possible means by which their impact on the economy, and particularly on U.S. foreign trade, may be reduced. These processes generally fall under two main categories: regulatory reform, and the harmonization of international environmental standards, which are ongoing efforts by the United States Government.

Regulatory Reform. The costs of compliance with environmental programs can frequently be reduced by such measures as removing duplicative or contradictory regulations, speeding up licensing proceedings, or other practices that add to the efficiency or flexibility with which given standards are attained. This has been an ongoing practice which has been given increased emphasis by the Administration in recent years. For example, the Regulatory Council, the Regulatory Analysis Review Group, and other groups within the Government have been established for the internal analysis of regulations and administrative procedures. Efforts have also been initiated in recent years to analyze the total impact of Federal regulations on the economy as a whole, as evidenced by the previously mentioned DRI study for the EPA and CEQ, and internal studies and measurements by these and other agencies.

A number of major actions recently have been implemented or proposed by the EPA to reduce the cost of compliance with air and water pollution abatement programs. One example is the "Bubble Policy" which allows existing sources of air pollution to propose alternative mixes of controls that would achieve the required emissions reductions at lower cost. Preliminary evidence indicates this program will enable such sources as petroleum refineries and chemical plants to reduce control costs by millions of dollars each year.

Another example is the EPA proposal to consolidate and streamline processes for issuing permits under five separate programs including the National Pollution Discharge Elimination System, the hazardous waste management program, the dredge-and-fill program for wetlands, the underground injection program, and the Prevention of Significant Deterioration permit program for

clear-air areas. The new procedures will, according to the EPA, close permit loopholes, provide greater consistency and program integration, reduce the paperwork and man-hours required to prepare and process applications, and improve applicants' understanding of the permit process.

International Harmonization. The harmonization of international environmental standards is also an ongoing process that can eventually minimize the impact of pollution programs on international trade. The Congress recognized the need for harmonization in the 1972 Amendments to the Federal Water Pollution Control Act (P.L. 92-500). The declaration of goals and policy, expressed in Section 101(c) of that Act, requires the President to work in cooperation with other countries to develop similar pollution standards. The Act further requires the President to undertake to enter into international agreements to obtain uniform standards on pollution control.

Other countries share the U.S. concern about the potential adverse effects on trade of differing pollution control policies and have been working actively to develop coordinated policies. The adoption of the polluter-pays principle by all OECD members in 1972 was a major step in this direction. However, much work remains in the area of harmonization, particularly with the developing nations. Efforts which encourage all countries to bring their environmental standards in line with those of the most advanced nations could improve the world environment and reduce the economic penalties that might be imposed on the countries with the highest standards.

TOXIC SUBSTANCES CONTROL ACT

Definition of the Potential Disincentive

Compliance with regulations associated with the Toxic Substances Control Act may have a negative impact on U.S. exports by increasing the production costs of some items.

Statutory Authority and Policy Objectives

Over the years Congress has passed a number of laws dealing with various aspects of toxic and hazardous substances control. For example, the Clean Air Act of 1970 and the Federal Water Pollution Control Act provide for national standards to limit harmful gaseous, particulate and effluent discharges into the air and water. The Occupational Safety and Health Act of 1970 was designed to control worker exposure to potentially hazardous substances in the job environment. The Federal Hazardous Substances Act provides for the regulation of consumer products considered to be toxic, corrosive, flammable, or otherwise hazardous.

These laws seek to protect the health and safety of the public by regulating products, byproducts and discharges known to be hazardous or toxic if uncontrolled. However, they do not provide for systematic mechanisms to identify and control new, potentially hazardous substances before such

substances reach workers and consumers. As a result, the Toxic Substances Control Act or TSCA (Public Law 94-469; 15 U.S.C., et seq.) was passed in 1976 to ensure that adequate premarket testing of new chemical substances be done, that comprehensive assessment of their potential risks be made, and that potentially hazardous chemicals be controlled from the production phase onward where necessary.

Administration of Regulations

The Environmental Protection Agency (EPA) is responsible for the administration of the TSCA. Using company reports, EPA has compiled an inventory list of chemical substances currently produced or imported for commercial purposes. Manufacturers and importers must make prior notification to EPA of their production of new chemical substances not listed on the inventory and of significant new uses of certain chemicals.

Under certain conditions, EPA may require manufacturers to conduct tests to evaluate a chemical's hazards. If a new or existing chemical substance is found to present an unreasonable risk to health or the environment, the EPA may prohibit its manufacture, sale, use or disposal; regulate the way it is manufactured or processed; set production, processing and distribution quotas; establish quality control measures; require labeling; and control disposal.

The TSCA specifically exempts from most of its provisions any firm's chemical products that are produced solely for export and are clearly labeled as such. However, EPA is authorized to override this exemption if it finds that such a product would cause or contribute to unreasonable risk to the health of people in the United States or to the U.S. environment. The actual significance of the export exemption and of EPA's exemption override authority depends on the particular chemical involved. If a chemical is hazardous in the initial manufacturing or processing stages, it will be controlled by EPA whether exported or sold domestically. However, if the risks lie in the uses of the chemical, it may in many cases be manufactured domestically and exported. (Note: This aspect of the Act is more fully discussed in the hazardous substances section of Chapter 7.)

The TSCA is applicable to manufacturers, importers and processors of chemicals, so all providers of chemicals to the U.S. market must comply with its provisions. However, small businesses are exempted from certain reporting requirements under the Act. In addition, any company may apply for an exemption permit from specific regulations, based on the possibility of undue hardship. Chemicals used only for research and development purposes may also be exempted from regulations. Pesticides, drugs, tobacco, and nuclear and munitions materials are regulated under separate legislation.

In 1975, prior to the Act's passage, EPA estimated the costs to industry of TSCA implementation at $80-140 million per year, while the Chemical Manufacturers Association estimated them to range from $360 million to $1.3 billion per year; GAO estimated yearly costs of $100-200 million. EPA is working to refine its early estimates, and believes that the annual cost of TSCA implementation will fall much closer to EPA's estimate than to that of the CMA.

One cost already imposed on chemical manufacturers and importers was the requirement to prepare an inventory of chemicals in commerce. This effort involved one-time administrative costs associated with gathering and preparing the necessary data. Future costs will be related to the fact that a firm that develops a new commercial chemical or a new use for an existing chemical must submit to EPA, before production can begin, a premanufacturing notice including considerable data on the chemical, its uses and marketing and potential risks involved. This requirement will involve some expense to the firm; however, submission of the premanufacturing notice does not insure that EPA will not act to require additional testing of the chemical or to prevent its manufacture.

The Act explicitly states that manufacturers should be responsible for developing adequate test data on chemical substances. Consequently, chemical firms may change the methods, extensiveness and direction of their research and development, and testing and marketing activities in order to avoid possible liability and regulatory problems.

Clearly the chemical industry will be the most heavily affected by the Toxic Substances Control Act. The Act's implementation may increase chemical production costs because of consequent intensified toxicological testing, a smaller proportion of new chemicals being offered for marketing, data gathering and preparation of premanufacturing notices, potential lost sales due to longer delays between the development and marketing of a new chemical or new use, and additional administrative costs.

Concern has also been expressed that the regulations could possibly lead to fewer new chemicals and uses being developed and marketed -- a potentially serious development in an industry whose expansion is tied to innovation. This could, in turn, affect supply and price structures both in the chemical industry and in chemical-using industries that produce such items as textiles, food, rubber and plastic products, building materials and paper. To date, the fear that TSCA regulations will have a negative impact on innovation in the chemical industry has not been borne out; numbers of new chemicals coming on the market do not seem to have changed since the premanufacturing notice regulations have been in effect. However, their implementation is fairly recent. Another consideration is that toxic substances control regulations could lead to the development of chemicals that are safer in terms of human health and the environment, which could provide net long-run savings to industry and to society. Thus, while there will clearly be some redirection of innovation as a result of the TSCA's implementation, the net overall effect (positive or negative) of the redirection is not yet known.

Chemical industry exports are important to our foreign trade -- chemicals are a major export category and a positive net contributor to the trade balance. Indications are that the U.S. industry will continue its strong performance in both domestic and export markets, with the present high world demand for chemicals expanding further as new chemicals and chemical uses are introduced. While the U.S. chemical industry faces new regulatory control, with some attendant costs, foreign chemical industries -- including most significant U.S. chemical export competitors -- are not exempt from such controls and costs.

It is not possible now to accurately gauge the cost impacts that toxic substances regulations may have on the U.S. chemical industry and, in turn, their effects on U.S. competitiveness in international markets. The TSCA was enacted recently, some implementing regulations have not yet been finalized, and private sector cost data are not available.

Private Sector Views

Few specific comments related to the potential export effects of toxic substances regulations were included in the private sector responses to the Federal Register notice on export disincentives. Private sector comments did not identify TSCA regulations as creating any major problems in export efforts. Production cost effects due to government regulations were briefly mentioned as a general problem to be addressed via regulatory reform.

Suggestions for overall regulatory reform made by various private sector groups in the past have included considering more alternative means of meeting a regulatory goal, and giving greater weight to the private sector costs of regulations in relation to the likely benefits. Business would also like regulations to be more straightforward and understandable, to involve a minimum of private sector paperwork and reports, to be reviewed periodically for effectiveness and to be applied in a timely fashion. Some business representatives stated that they established or expanded production plants abroad to avoid long delays in getting agency approval of new products, particularly chemicals controlled under the TSCA. Another area of concern was overlap and conflict among different agencies' regulations and requirements.

In its general comments on potential export disincentives, the AFL/CIO strongly supported domestic legislation promoting safe products, worker health and other social goals, and urged the Executive Branch to effectively implement those laws. The federation stated that those domestic goals should be given primary consideration, and that export promotion should not be used as an excuse to weaken the laws.

Current Status and Continuing Developments

The Administration has taken a number of steps toward regulatory reform to address business problems with EPA's regulations and to help reduce their costs. In the process of implementing regulatory reform, the potential export effects of EPA actions are considered by decision makers. To the extent that these reform actions lead to lower cost burdens on the private sector, export competitiveness may be benefited.

EPA developed a Regulatory Alternatives Checklist to ensure that program offices consider early in the regulatory process all feasible alternatives permitted under enabling statutes. In the process of developing regulations, EPA routinely assesses costs and economic impacts, and publishes the results of these studies. In addition, EPA is training writers to develop regulations that will include plans, formats, and procedures for evaluating effectiveness on a continuing basis, with a formal review within five years. A plain English project to improve regulatory writing has also been

instituted. These activities should particularly benefit the toxic substances control program, since many of its implementing regulations are still at the draft or proposal stages. One specific measure that has already been taken is the streamlining of TSCA premanufacturing notice requirements, to retain essential information while reducing estimated reporting costs by 50-75 percent compared to the original proposal.

EPA is a member of the Interagency Regulatory Liaison Group (IRLG) formed to coordinate the activities of those agencies with responsibilities to protect the public against toxic substances. The IRLG publishes a document titled "Hazardous Substances" and the periodical "Regulatory Reporter", both of which provide a detailed summary of actions each agency has taken and is planning to take on specific substances in which two or more of the agencies are interested. IRLG also established a work group to prepare toxicity testing guidelines that would generate data acceptable to all IRLG agencies. IRLG published a document on scientific concepts and methods for the identification and evaluation of substances that might pose a risk of cancer to humans. In addition, agencies have coordinated their regulations on the manufacture of chlorofluorocarbons used as aerosol propellants, an area in which EPA was required to take action under the TSCA.

EPA has been working with other countries to develop an internationally consistent approach to the regulation of toxic substances through the Chemicals Program of the Organization of Economic Cooperation and Development (OECD), which includes most of our major chemical trading partners. The OECD Chemicals Testing Program has developed testing guidelines covering health and environmental effects, general principles of good laboratory practice, the concept of mutual acceptance of data, and a minimum premarket set of data for notification and screening purposes. All of these elements, which are generally recognized as key factors in international harmonization of chemical control, were endorsed by the environment ministers at a Paris meeting of the OECD Chemicals Group in May 1980. The ministers also recommended their formal adoption by the OECD Council. EPA will, as lead U.S. agency in the OECD Chemicals Program, continue to work for further harmonization in the updating of these and other elements of chemical control. This effort will serve to reduce potential barriers to trade and equalize costs of compliance with chemical control laws of the various member states.

CONSUMER PRODUCT SAFETY ACT

Definition of the Potential Disincentive

Compliance with product standards and regulations associated with the Consumer Product Safety Act may have a negative impact on U.S. exports by increasing the production costs of some items.

Statutory Authority and Policy Objectives

Over the past three decades, concern about the potential hazards of certain consumer products has resulted in several legislative initiatives. The Flammable Fabrics Act passed in 1953 provides for the regulation of wearing apparel and fabrics in order to protect the public against unreasonable risk of fire-related death, personal injury or property damage due to excessive flammability of apparel and fabrics. The Refrigerator Safety Act of 1956 requires refrigerators to have safety devices enabling their doors to be opened easily from the inside, to decrease the possibility of children being trapped inside and suffocating. The Federal Hazardous Substances Act provides for the regulation of toxic, corrosive, flammable and other hazardous substances whose use or handling, or ingestion by children, might cause substantial personal injury or illness. The Poison Prevention Packaging Act of 1970 provides for special packaging to protect children from serious injury or illness due to handling, using or ingesting household substances.

The widespread desire to improve the effectiveness of the various consumer safety laws and regulations resulted in the passage of the Consumer Product Safety Act (Public Law 92-573; 15 U.S.C. 2051, et seq.) in 1972. This Act established the U.S. Consumer Product Safety Commission (CPSC) and gave it numerous powers to marshal the resources of consumers, business and public agencies to reduce the risk of injury associated with the [illegible] of consumer products. The Act also transferred to the CPSC the responsibility for implementing the four laws described above.

Administration of Regulations

The CPSC participates with industry to develop voluntary product safety standards, and may also establish mandatory standards where an unreasonable risk of injury exists, to cover the performance, packaging, labeling or other aspects of a consumer product. Where a substantial product hazard exists, the CPSC can order the manufacturer, distributor or retailer of the product to notify purchasers of the hazard, or to choose between repairing or replacing the product or refunding its purchase price. Where an imminent hazard exists, the CPSC can obtain a court order for immediate action. The CPSC can ban a consumer product if no feasible safety standard will adequately protect the public from unreasonable risk of injury.

Tobacco products, vehicles, aircraft, vessels, drugs, and food products covered under other laws are exempted from CPSC regulations. Importers have the same responsibilities as domestic manufacturers, and foreign products that do not meet CPSC regulations may be refused entry into the United States.

Consumer products which are intended solely for export and are clearly labeled as such are exempt from compliance with the Act. A 1978 amendment to the Act requires exporters of products not in compliance with CPSC standards to notify the CPSC at least 30 days before the scheduled exportation. The CPSC notifies the government of the country that is to receive the products, so the country may make an informed judgment about whether or not to admit the goods. Exporters are required to provide the CPSC with only one

notification per year for each series of shipments of goods bound for the same country. It should be noted that the export notification requirements of the CPSC and some other regulatory agencies have generated substantial controversy, and have been considered by a special interagency group working on hazardous substances export policy. (This aspect of the Act is discussed more fully in the hazardous substances section of Chapter 7.)

The costs of compliance with CPSC regulations vary depending on the actions required by each regulation. They may include the costs of testing products for safety and compliance with standards; developing alternate product design, composition, finish, etc., where existing specifications are deficient; changing production lines to make acceptable alternative products; adding necessary labeling; notifying the public; collecting, repairing, replacing or refunding products that pose a substantial product hazard; and any lost future sales if the manufacture of the product is banned.

Under the Act, the CPSC is required to make findings concerning, among other things, the probable impacts of proposed standards upon the cost and availability of affected products, and alternate means of achieving the same objectives with less adverse effects on competition. CPSC regulations also require submissions recommending standards to provide information on the impact on international trade. In setting standards, any existing international standards are also considered by the CPSC, as required under agency regulations and under the Trade Agreements Act of 1979. As noted above, goods that have never entered domestic commerce generally may be exported without compliance with domestic standards, although notification to the Agency is required for non-complying goods. On the whole, while CPSC regulations may add somewhat to product costs, the available evidence indicates that product safety standards have probably had only minimal, if any, impact on U.S. exports.

Private Sector Views

Most business comments (expressed in replies to the Federal Register notice and at the private sector conferences) that discussed government regulations mentioned associated production cost increases as a general concern to be addressed via broad-based efforts at regulatory reform. One respondent did identify CPSC regulations specifically as creating problems in exporting. That company felt that CPSC export notification requirements were unduly burdensome to exporters and offensive to foreign governments, and would only encourage companies to manufacture and assemble their products overseas. The respondent also suggested that U.S. standards be based on existing international ones where feasible to minimize differences between U.S. and foreign standards.

In its general comments on potential export disincentives, the AFL/CIO strongly supported domestic legislation to promote safe consumer products, and urged the Executive Branch to effectively implement the law. The AFL/CIO stated that consumer product safety should be given primary consideration, and that export promotion should not be used as an excuse for attempts to weaken the consumer protection provided under the law.

Current Status and Continuing Developments

The Administration has taken a number of steps toward regulatory reform to reduce concerns businesses have with CPSC's regulations and to help minimize the costs associated with them. In the process of implementing regulatory reform, the potential export effects of CPSC actions can be considered by decision makers. To the extent that these reform actions lead to lower cost burdens on the private sector, export competitiveness may be benefited.

The CPSC has worked together with the private sector in voluntary standard setting efforts to avoid, where appropriate, the use of mandatory standards. It has expanded programs to simplify the language of its standards and regulations, to distribute notices to industry groups and consumers on a direct and widespread basis, to consider public comments when setting its action priorities, and to involve industry groups and consumers in all phases of its actions.

The CPSC is a member of the Interagency Regulatory Liaison Group (IRLG) formed to coordinate the activities of those agencies with responsibilities to protect the public against toxic and hazardous substances. The IRLG has been working to simplify hazardous substances regulations, prepare uniform toxicity testing standards and guidelines, and develop uniform policies for the identification, assessment and control of potential carcinogens. Agencies coordinated their regulations on the use of chlorofluorocarbon aerosol propellants in certain products, and have worked together in the area of asbestos hazards.

CPSC export notification requirements are mandated by statute, as are those implemented by several other agencies. In order to address the controversy surrounding various export notification and export control regulations on products generating health, safety and environmental problems, an interagency Hazardous Substances Export Policy Working Group was formed two years ago. Chaired by Esther Peterson, Special Assistant to the President for Consumer Affairs, the 24-agency Working Group has sought to develop a consistent export policy for such products. The Working Group has affirmed its awareness that excessively restrictive limitations on the export of products which a foreign country may decide it needs could place U.S. firms at a competitive disadvantage and undermine foreign buyer confidence in the reliability of U.S. firms as suppliers. Export impacts are being carefully considered by the Working Group, which is expected to release a final report on a hazardous substances export policy at the summer's end.

OCCUPATIONAL SAFETY AND HEALTH ACT

Definition of the Potential Disincentive

Compliance with standards associated with the Occupational Safety and Health Act may have a negative impact on U.S. exports by increasing the production costs of some items.

Statutory Authority and Policy Objectives

Prior to 1970, a number of limited safety standards had been published under authorities in various laws such as the Service Contract Act, Construction Safety Act, Arts and Humanities Act, and Longshore Safety Act. Also, the Department of Labor had certain safety and health responsibilities under the Walsh-Healey Act. Congress passed the Occupational Safety and Health Act of 1970 (Public Law 91-596; 29 U.S.C. 651, et seq.) in order to help reduce the number and severity of work-related injuries and illnesses. It provides for uniformly applied Federal occupational health and safety standards, Federally approved State government health and safety programs, and related research, education and training. The Act is administered by the Department of Labor's Occupational Safety and Health Administration (OSHA).

Administration of Regulations

OSHA regulations set standards on unsafe or unhealthy working conditions, worker exposure to toxic and hazardous substances, certain on-the-job services (fire protection, medical care, sanitation), and record-keeping and other administrative procedures. There are nationally applicable "general industry standards," and separate but similar regulations for the shipping/longshoring, construction, and agricultural sectors. Mining operations are regulated by a different agency under separate legislation and will not be discussed here.

Under the Occupational Safety and Health Act, OSHA operates a variance program which allows employers to use alternative, non-standard methods to comply with an OSHA requirement, provided that worker protection is not diminished and the alternative method is approved by OSHA. The variance program is applicable to existing specification standards, which are primarily design-oriented safety standards.

The cost impacts of OSHA regulations include capital costs where existing plant facilities must be retrofitted or equipment replaced in order to meet a new safety or health standard. Private sector costs associated with individual OSHA standards vary greatly, ranging from, for example, $111 million per year for the inorganic arsenic standard to perhaps more than $1 billion per year for noise control, based on early OSHA estimates. Most OSHA safety standards have been in force for several years now, so the essentially one-time capital costs of compliance with respect to plant safety (e.g., installing machinery guards) have generally already been met. Future OSHA standards actions and resultant private sector costs are likely to be mainly in the environmental and health area; potential occupational hazards related to carcinogens, radiation, noise, etc., are continually being uncovered and tend to be rather expensive to control.

According to McGraw-Hill surveys, actual capital costs for safety and health purposes have varied considerably from year to year, depending partly on the deadlines for compliance with new OSHA standards. The surveys indicated, for example, that capital costs were about $4.3 billion in 1978, $2.9 billion in 1979, and are projected to total about $3.7 billion in 1980.

Compliance with OSHA regulations also requires ongoing maintenance, operational and administrative costs. However, a recent study of 48 major companies conducted by Arthur Andersen and Co. reported that the vast majority of the companies' safety and health expenditures would have been incurred under their own programs even without OSHA regulations.

The expense of meeting OSHA requirements tends to be more burdensome, on a cost per employee basis, for smaller firms than large firms. Firms with older plant and equipment tend to be more affected than those with newer facilities, since the older ones may be less efficient and safe, and the costs of integrating their equipment and systems with new machinery needed to meet standards may be higher. Companies whose work involves considerable physical movement, machinery or heavy equipment, chemicals, or raw materials processing are more heavily impacted than firms such as banks or retail outlets whose activities involve few potential safety or health risks.

On the whole, the private sector firms most affected in cost terms by OSHA regulations tend to be primary manufacturing industries -- those producing or converting basic materials. Their increased production costs due to regulatory compliance are generally reflected in higher costs to the companies processing those materials into finished goods. However, based on the lack of specific Federal Register responses, the production cost impacts of OSHA regulations do not appear to have operated as a significant disincentive to exports.

One point that should be mentioned, however, is the possibility that the cost of compliance with OSHA standards may be a factor in the transfer of formerly U.S.-based production facilities to countries with less stringent safety and health regulations. Some plant relocations overseas that were apparently made to avoid the costs of complying with OSHA regulations have already taken place, mostly to less developed countries whose lack of an economic base, need to create jobs, and inexperience with hazardous industries leads them to accept those industries. Obviously, overseas plant relocations might result in reduced U.S. exports. If the products of these plants were sold in the U.S. market this would also increase our imports, and if sold overseas this would heighten foreign market competition for U.S.-based producers. The extent of plant relocations overseas and the degree to which OSHA regulations influenced decisions to relocate are, however, unknown and any estimate would be speculative at this juncture.

Private Sector Views

No specific comments related to the potential export effects of OSHA regulations were included in the business community responses to the Federal Register notice on export disincentives. Production cost impacts due to government regulations were briefly mentioned as a general problem to be addressed via broad based efforts at regulatory reform. A 1979 survey of exporters done for the National Governors' Association suggested that many exporters believed OSHA and other Federal regulations to be a hindrance to product marketability, particularly when foreign competitors did not face similar constraints.

Private sector comments on specific aspects of OSHA regulations made in the past during agency rule-making proceedings, Congressional hearings and business conferences have centered around two basic criticisms: (1) that OSHA often sets unrealistically high standards not justified by available scientific evidence, by technological capabilities, and/or by the increased worker protection that might be provided in relation to the private sector costs that would be incurred; and (2) that OSHA standards often specify means of compliance which are overly detailed, inflexible, excessively expensive, and not fully effective in providing the desired worker protection.

In its submission on possible export disincentives, the AFL/CIO strongly supported domestic legislation promoting worker safety. The federation stated that domestic goals should be given primary consideration, and that export promotion was being used as "another excuse to undermine worker health and safety."

Current Status and Continuing Developments

The Administration has taken a number of steps to address private sector concerns with OSHA's regulations and to help minimize the costs imposed by those regulations. In the process of implementing regulatory reform, the potential export effects of OSHA actions can be considered by decision makers. To the extent that these reform actions lead to lower cost burdens on the private sector, export competitiveness may be benefited.

Following a Congressional directive, OSHA reviewed its standards and in 1978 revoked about 900 "nuisance standards." OSHA has also rewritten a bloc of current standards into much shorter, simpler performance-oriented language to permit more flexibility in compliance and better use of private sector resources. OSHA has started employer and worker training programs to reduce dependence on OSHA inspectors. OSHA also has a pilot project using a labor-management committee to monitor workplace safety and health and to resolve disputes, which might avoid adversarial interactions between OSHA and private firms, and reduce the use of costly OSHA enforcement proceedings.

With regard to health standards, OSHA is a member of the Interagency Regulatory Liaison Group (IRLG) formed to coordinate the activities of those agencies with responsibilities to protect the public against toxic substances. The IRLG has been working to simplify hazardous substances regulations, prepare uniform toxicity testing standards and guidelines, and develop uniform policies for the identification, assessment and control of potential carcinogens.

While not directly aimed at exporting, these regulatory reform efforts should reduce the negative impact OSHA regulations may have on the private sector's ability to compete in foreign markets, without compromising the attainment of the basic goals of the Occupational Safety and Health Act.

CHAPTER 11. OTHER POTENTIAL EXPORT DISINCENTIVES

This chapter discusses three different, potential export disincentives. The three are: cargo preference requirements, ocean freight rate disparities and extraterritorial environmental reviews.

CARGO PREFERENCE REQUIREMENTS

Definition of the Potential Disincentive

Cargo preference requirements reserve a portion of U.S. Government owned or concessionally financed maritime cargoes for shipment on U.S. flag vessels. The reserved portion of preference cargoes can be shipped on foreign flag vessels, but only if the needed service cannot be supplied by a U.S. vessel or cannot be supplied by a U.S. vessel at fair and reasonable rates.

Cargo preference requirements could function as an export disincentive to the extent they reduce foreign sales of U.S. goods. Cargo preference requirements, however, increase the export of maritime services. Shipping costs on U.S. flag vessels governed by conference agreements are identical to the charges on foreign flag vessels governed by the same conference. Vessels not governed by a conference agreement do not necessarily charge the same rates, and it can occur that shipping costs on U.S. flag vessels may be higher than on foreign flag non-conference vessels. Consequently, the prices of U.S. goods delivered at foreign ports are higher if the goods are affected by cargo preference requirements and would otherwise be shipped in a non-conference member vessel. Considering only the physical goods, higher prices imply lower sales, which in turn imply that cargo preference is an export disincentive.

Cargo preference may not be a disincentive if the broader concept of exports of goods and services is applied. U.S. exports of goods may be lower with cargo preference because delivered prices are higher by the amount of the disparity between U.S. and foreign flag shipping charges where a disparity exists. At the same time, however, U.S. service exports are increased because the United States supplies the transportation services. Since the shipping cost differential, when it exists, is rarely if ever as large as foreign vessel charges, dropping cargo preference would increase service imports more than it would increase goods exports. Consequently, cargo preference restrictions are not an export disincentive if "net exports of goods and services" is the definition to apply.

Statutory Authority and Policy Objectives

Legislation. Non-commercial cargo preference has been established by legislative actions over the past 75 years. Beginning in 1904, the Military Transportation Act specified a preference for U.S. flag vessels in the transport of Army and Navy supplies in direct support of American military

establishments overseas. In 1934, Public Resolution 17 required the use of U.S. flag vessels in the transport of agricultural and other product exports originating from loans made by the Reconstruction Finance Corporation or by any other agency of the Government, unless the Maritime Administration certified to the lending agency that such vessels were not available as to numbers, tonnage capacity, sailing schedule, or at reasonable rates. Finally, the Cargo Preference Act, passed in 1954, amended in 1961, and incorporated as an amendment to the Merchant Marine Act of 1936 under Section 901(b)(1), provides that at least 50 percent of the gross tonnage of government generated cargoes shall be transported on privately owned U.S. flag commercial vessels. This requirement includes procurement by the United States for its own account and the furnishing of equipment, materials, or commodities for the account of any foreign nation.

Purpose of Legislation. These non-commercial cargo preference laws are part of a larger group of legislation intended by Congress to preserve, to enhance and to make competitive a merchant marine fleet for economic and political as well as national security reasons. The legislation recognizes that U.S. vessel construction and operating costs are generally higher than equivalent foreign costs, and to achieve a desired level of maritime capability, a system of direct and indirect assistance to the maritime industry has been provided. Direct assistance is extended via construction and operating differential subsidies; indirect assistance is extended via cargo preference.

The difference between U.S. and foreign costs reflects, in part, a higher U.S. standard of living that is reflected in wage scales and material costs. Another component of the cost difference is attributed to the direct and indirect assistance provided by foreign governments to their own maritime industries. The extent to which these foreign government programs affect U.S. versus foreign cost disparities is under continuing study. Many other maritime nations, however, have similar cargo preference laws for non-commercial, government generated cargoes, as well as policies reserving commercial cargoes to national fleet vessels.

U.S. International Agreements and Equal Access Arrangements

In contrast to cargo preference for U.S. Government owned cargo, the United States has traditionally followed a policy of free commercial access by vessels of all countries to all commercial cargoes. In recent years, however, the U.S. has exchanged memoranda of understanding with two Latin American countries establishing equal access arrangements that reserve some commercial cargoes to national flag carriers. Additionally, the United States has an international agreement with the Soviet Union which reserves equal portions of bilateral cargoes to U.S. flag and Soviet flag carriers.

These departures from the traditional free access policy have been justified as necessary to assure continued opportunities for equitable participation in the affected trades by U.S. flag shipping. In each instance, the foreign government was prepared to or actually had restructured the competitive environment of its maritime trade. The agreements are generally viewed as the only effective means of maintaining a U.S. position in those particular transport markets.

Administration of Regulations

Non-commercial cargo preference requirements generally affect one of four U.S. Government programs: Department of Defense (DOD) maritime shipments, P.L. 480 grants and loans, Export-Import Bank loans, and AID grants and loans. The extent to which preference requirements function as export disincentives varies across the four programs, and is largely a function of the budgeting/funding process followed by each program.

Department of Defense. Department of Defense maritime shipments represent more than one-half of all tonnage affected by U.S. cargo preference restrictions. DOD is required to employ U.S. flag vessels to move cargoes intended for foreign installations as well as cargoes that are part of the U.S. Foreign Military Credit Sales and Grant Aid programs.

The fundamental determinant of the level of DOD shipments is the national security and foreign policy objectives of the United States. DOD budget allocations incorporate any maritime transport cost differential expected to be incurred as a result of cargo preference restrictions. As a result, it is generally agreed that cargo preference restrictions do not affect the physical quantity of DOD shipments. There may be an effect on the total expenditures needed to pursue selected DOD efforts, but not on the size of the effort itself. Consequently, cargo preference does not act as an export disincentive in this instance.

P.L. 480 Program. Under P.L. 480, agricultural assistance programs are composed of Title II grants for famine or other urgent relief assistance, and Title I sales of commodities to foreign governments that are financed by the Commodity Credit Corporation.

Title II grants, about one-third of the total P.L. 480 budget, are financed by an allocation to the Commodity Credit Corporation. The budget must cover the purchase and shipment of commodities intended for emergency relief. To the extent the Corporation is required to employ U.S. vessels at higher cargo rates than foreign vessels, cargo preference does restrict the value of the commodity assistance granted under Title II. Whether this constitutes an export disincentive depends precisely on the definition discussed previously. It should be emphasized that Title II represents the clearest illustration of the problem because the total amount of funds to be expended is constant. Cargo preference in this instance increases goods and service exports compared to a no-preference situation, but reduces commodity exports.

The extent of any disincentive effect in the case of Title II shipments is limited because most Title II shipments are liner-sized consignments and not tramp or bulk vessel (i.e., full vessel) cargoes. Since liner operators serving the U.S. -- including U.S. flag and foreign flag operators -- are conference members, the same rate would be charged without regard to the registry of the vessel. Thus, eliminating cargo preference could reduce service exports without an offsetting increase in exports of goods.

The effects of cargo preference requirements on Title I sales, about two-thirds of the P.L. 480 budget, are virtually the same as the effects on Title II grants, although there is a difference in the way the effects are

registered. Under Title I, sales of agricultural commodities are made to foreign governments on concessional terms -- the repayment period is from twenty to forty years, and interest rates are substantially below commercial rates, averaging only two to three percent. The foreign government does not ultimately pay the freight cost differential if higher freight costs are incurred as a result of the U.S. cargo preference requirement. The foreign government must initially pay the freight charges, but after a delay of approximately three months, the Commodity Credit Corporation reimburses the foreign government for the amount of the differential. In 1978, these reimbursements totalled $83.1 million.

The cargo preference effects on Title I sales are different from Title II only to the extent the foreign government purchases smaller amounts of agricultural commodities because it does not have or cannot borrow for three months the funds needed to pay a freight differential. Consequently, removing the cargo preference requirement might marginally affect commodity exports, but would reduce transport service exports. Further, the amount of the reduction would be the full cost of the transport, and not just the cost differential or the 90-day interest charge on the cost differential.

Export-Import Bank. The Export-Import Bank makes direct loans, refinances export credits, issues loan guarantees, and extends insurance in order to facilitate export sales of U.S. goods and services. Exports resulting from Export-Import Bank loans to foreign entities are subject to U.S. cargo preference requirements. The Bank does not reimburse the loan recipient for differential freight costs incurred as a result of U.S. cargo preference requirements.

The effects of cargo preference on U.S. exports financed by Export-Import Bank loans cannot be determined conclusively. The preferences raise delivered prices to the foreign borrower only to the extent that the foreign borrower would have been able to arrange for non-conference, non-U.S. flag carriers at lower rates and would tend to reduce borrowing and thereby tend to reduce U.S. exports. The overall effects are not clear because the terms and conditions for Export-Import Bank loans are below private market conditions. Consequently, the foreign buyer must evaluate the potential purchase package, including financing and freight, and compare the package to others that may be available. It is possible that in some cases differences in freight costs may be the deciding factor in evaluating U.S. versus foreign competitor concessional loan packages; in these cases the cargo preference requirement may reduce the potential for U.S. exports financed by Export-Import Bank loans, if there are no requests for loans and the Bank has excess loan funds available.

AID Programs. AID program areas affected by cargo preference requirements include both grants and loans. AID grants to foreign countries are affected by cargo preference requirements in exactly the same way P.L. 480 Title II grants were affected when program size was fixed in dollars. The effects on AID loans, however, are more similar to the effects on Export-Import Bank loans.

AID loans are extended on the same concessional terms granted to finance P.L. 480 Title I sales. The difference between AID loans and Title I is that the AID budget does not include reimbursement to the foreign government for

freight differentials resulting from cargo preference requirements. (Out of a budget of over $800 million per annum, approximately $30 million is used to pay for the higher costs of shipping on U.S. flag vessels.) To the extent that the AID loan budget is fixed, exports of goods would be reduced. However, in this case, as in the case of Title I sales, eliminating the cargo preference requirement could reduce the export of total goods and services significantly more than exports of goods could be increased.

Private Sector Views

In response to the Federal Register notice, some U.S. exporters stated that the cargo preference system results in a loss of competitiveness. In other instances, U.S. exporters cited costly paperwork requirements imposed on AID loan recipients as a result of cargo preference rules. Finally, exporters have asserted instances "where the foreign government has balked at the resultant tender prices for materials due to the high cost of shipment on U.S. flag vessels."

Organized labor has expressed clear and unqualified support for the continuation of cargo preference, and does not view cargo preference as a disincentive to U.S. exports. Similarly, the maritime industry does not view cargo preference as a disincentive to U.S. exports.

OCEAN FREIGHT RATE DISPARITIES

Definition of the Potential Disincentive

The term ocean freight rate disparities refers to the existence of different freight rates for the transport of commodities from a United States port to a foreign port compared to exactly the same transport in the opposite direction for identical commodities. It also refers to different rates for transport of identical commodities from an alternative source country to a third market in comparison to rates paid by U.S. exporters. In both cases, if the rates are different, then a disparity exists. To the extent that the disparity is higher outbound from the United States and adds to the cost of U.S. exports, it is considered an export disincentive. A broader definition includes different (usually higher) freight rates charged for the transport of somewhat similar commodities from the United States to a foreign country compared to substantially the same voyage in the opposite direction. Such disparities could also act as an export disincentive.

Statutory Authority and Policy Objectives

Legislation and Regulation. Legislation related to ocean freight rate disparities includes several different acts and subsequent amendments to those acts, but the primary legislation is the Shipping Act, 1916. The Federal Maritime Commission traces its responsibilities in determining ocean freight rate disparities to at least three amended and original sections of the Act : Section 18(b)(5), Section 17 and Section 22.

The Federal Maritime Commission is empowered to disapprove ocean freight rates submitted by individual carriers or shipping conferences from or to U.S. ports. Shipping conferences usually establish identical rates for all their members -- U.S. flag as well as foreign flag members. Some conferences also provide for the right of their members to charge different rates. Vessels not governed by a conference agreement do not necessarily charge the same rates, and it is sometimes the case that shipping costs on U.S. flag vessels are higher than on foreign flag vessels. The Commission can disapprove rates it deems to be detrimental to the commerce of the United States. Its regulatory jurisdiction covers common carriers of all nationalities operating on foreign trade routes to and from the United States.

The available evidence suggests that: (1) under the broader definition ocean freight rate disparities probably do exist, but under a very strict definition of what constitutes a disparity, they generally do not; (2) under both definitions, but particularly the stricter one, disparities are difficult to demonstrate; (3) where disparities do exist they indicate a reasonable application of the pricing principle of profit maximization or even monopolistic pricing in different (separated) markets; and (4) rate disparities make up such a small portion of total export costs that they have little effect on export demand. The following discussion explains and analyzes these points more fully.

Background. The Federal Government has regulated carriers serving U.S. ports since the early 1800s, through cabotage laws restricting coastal shipping to U.S. vessels, cargo preference requirements, and through regulating the tariff practices of ocean common carriers on U.S. foreign trade routes as well as monitoring freight rates on liner cargoes with a view toward disapproving disparate rates.

At the end of World War II, the war-torn economies of Europe and Japan had little to export. Since space on outbound routes was at a premium in those early postwar years and space on the inbound routes was abundant, the economics of the situation necessitated maximizing revenues by charging differential rates -- generally higher for the more sophisticated manufactured products carried on the outbound routes than for the lower valued products carried on the inbound routes. It is likely that this structure of rates became prevalent in conferences serving the U.S. trades during the fifties and sixties.

The effects of traditional trade route rate structures since World War II, and supply and demand factors for cargo space in both directions suggest that, in general, U.S. exporters pay higher ocean freight rates than foreign exporters to the United States. Assessing these supply and demand factors for cargo space is very difficult. Where there is no cargo back to the United States on a return voyage, few observers would argue that it is unreasonable for the carrier to offset his losses by charging higher rates on the outbound leg of the voyage. This situation arose frequently during the 1974-76 period when OPEC countries were importing so heavily from the United States, and non-oil carriers were returning empty from that area. When, however, there is some cargo being transported in both directions, it is exceedingly difficult to assess whether principles of cost allocation are being applied reasonably. This added cost contributes to higher U.S. export prices or to a lessening of exporters' profits. These costs may contribute to discouraging some U.S. producers from exporting.

A Booz, Allen and Hamilton study for the Department of Transportation, A Study of Ocean Rate Disparities (1978), analyzed this subject. It attempted to construct the strictest definition of ocean freight disparities possible. By doing so, it, of course, limited the number of sample commodities studied. Critics have argued that this limitation restricts the inferences that can be drawn from this study. Nevertheless, its major conclusion is: based on a sample of 51, 4-digit SITC commodities moving in significant amounts in both directions on one or more of the eight major U.S. routes, and possessing an equivalent value per ton (within 15 percent), ocean liner freight rates are 32 percent higher for commodities outbound from the United States than for similar inbound commodities.

Alternatively, a study of 44 alleged rate disparities by the Federal Maritime Commission found that higher rates were justified in 36 cases. The justification was based on the U.S. commodities having a higher value than inbound commodities. In fact, the FMC concluded that based on differentials in value it could be argued that U.S. exporters were being charged lower rates than could justifiably be charged.

Where ocean freight rate disparities do exist, their economic effects on U.S. exports are several. First, when freight rates are higher from the U.S. to a foreign country than rates for the same goods when shipped from the country to the United States, this difference contributes to the cost of U.S. goods overseas and makes imports from the United States less cost competitive.

Similarly, all other things being equal, imports to the United States that enjoy cheaper shipping rates than U.S. exports will enjoy a higher demand than they would otherwise. The result may be a worsening of the balance of trade and, should enough of these disparities exist across a large enough range of U.S. exports, the result may be a worsening of the balance of trade, and a depreciation of the dollar. Given enough time such a depreciation could be a self-correcting mechanism, by increasing export competitiveness. However, the ancillary worsening of the terms of trade and additional costs to domestic inflation (through higher import prices) are definite disadvantages.

On the other hand, the transportation costs of most exports are generally a small portion of the total costs of a commodity and the freight rate disparity, if there is one, will be a small fraction of total transportation costs. Thus, the total effect on export costs and the effect on demand for U.S. exports is generally quite small. There may be some exceptions for a few specific products. Second, in practice, the problem of determining ocean freight rate disparities is, if not complex, one with many facets that requires a high level of expertise and specialization in the subject.

The Federal Maritime Commission has the statutory authority to investigate and disapprove disparate rates established by individual carriers or conferences. The Commission has stated that its many years of experience in dealing with disparities have shown that most disparities are cosmetic or superficial in nature and do not necessarily represent a real problem for exporters. One major difficulty lies in determining if the commodities for which there is a question of disparate rates can be defined as the same commodities.

In the past 3-1/2 years the Commission has attempted to acquire the means of focusing on those disparities which involve genuine problems by developing and operating a very detailed and complex data retrieval system on freight rates, tonnage, etc. This system should offer sufficient refinement to determine whether the commodities involved are substantially similar. The Commission has also pledged to make more extensive use of its powers under Section 21, Shipping Act, 1916, which requires common carriers to file reports with the Commission at the Commission's request without necessitating the procedural complication of a hearing. In addition, as the staff workload of the Commission allows, they have instituted an affirmative action program investigating particular routes to identify the extent to which disparities generall are present. Particular consideration is to be given to such areas as gene freight increases to answer the following questions: (1) are they filed a the same level in both directions of a given trade; and (2) does this activity suggest that carriers or conferences are seeking to satisfy a need for added revenue from the American exporters on an imbalanced basis in relation to importers.

Freight Rate Disparities in Third Country Trade. The question of freight rate disparities to third countries from foreign countries is also occasionally studied by the FMC. On this issue, the Booz, Allen study contends that ocean freight rates paid by U.S. exporters are over 100 percent greater in the sample constructed by Booz, Allen than those paid by exporters from an alternative source country to a third market. This conclusion was reached by constructing a model which hypothetically related carrier costs (on ships not actually serving those trade routes) to rates. Third market rate disparities are especially difficult to identify because of a lack of access to foreign rate information. However, even if closer examination of the model constructed indicated controversial assumptions, it does signal that this problem needs further consideration.

Private Sector Views

Comments from the private sector generally stated that ocean freight rate disparities exist. One exporter's view reflected the essence of these comments: "U.S. business finds itself competing in world markets with foreign companies who are completely subsidized by their national governments, and flagrantly so. The irregular and non-competitive construction of ocean freight rates in and of themselves puts the American manufacturer at a grave disadvantage. His foreign competition can transport a competitive product from the same foreign point to the same domestic market in the U.S.A. at much lower transport costs."

Current Status and Continuing Developments

New legislation is now before Congress to revise and clarify the Shipping Act, 1916, and related laws. S. 2585, the "Ocean Shipping Act of 1980," would place more emphasis on shippers' (exporters') complaints about rate disparities. The bill would have the Federal Maritime Commission investigate complaints rather than initiate action on its own.

The bill also clarifies the Congressional intent of supporting a strong U.S. merchant marine fleet. It restates that shipping conferences are exempt from antitrust legislation and also exempts shippers' conferences.

Several agency representatives (who serve the business community) believe that increased education of exporters would enable them to explore the possibilities of obtaining freight rates through direct negotiation with carriers and conferences and obtain assistance from the Federal Maritime Commission ombudsman.

EXTRATERRITORIAL ENVIRONMENTAL REVIEWS

Definition of the Potential Disincentive

A number of Federal agencies, pursuant to Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, have adopted procedures delineating requirements for environmental assessments of the overseas impacts of their actions. The Executive Order was issued to clarify and consolidate the Government position on the extraterritorial application of U.S. environmental procedures. The Order limited the extension of U.S. standards abroad and required the implementing agencies to give consideration to a number of factors, specifically including international commercial, competitive and export promotion factors. However, these regulations may still lead to some added costs, delays, and restrictions on the export of some products, and thus may be viewed as a potential export disincentive.

Policies, Regulations and Laws

Under the National Environmental Policy Act of 1969 (NEPA), Federal agencies are required to consider the domestic environmental impacts of major Federal actions in their decision making. Executive Order 12114 extended certain environmental assessment requirements to Federal actions which have significant effects on the environment outside the geographical borders of the United States. The Executive Order covers major Federal actions that significantly affect the environment of foreign nations and the global commons -- areas not under the jurisdiction of any nation.

Exempted from the Order are Presidential actions, actions based on national security, intelligence activities and arms transfers, some nuclear activities, emergency relief, and other actions. Export licenses and permits are specifically excluded, but Eximbank and other export financing is specifically included. Under certain circumstances -- e.g., conflicts with national security or foreign sovereignty -- other U.S. Government actions may also be exempted from the Order.

Procedures have been issued pursuant to the Order by the Export-Import Bank, the Departments of State and Defense, the Overseas Private Investment Corporation, and the Agency for International Development. The Commerce Department was exempted from these requirements in issuing export licenses.

Administration of the Regulations

These regulations are new and some questions remain about their administration under various situations and, therefore, their effect on exports. The regulations generally impose the strictest requirements on actions affecting the global commons, and actions involving specific types of products subject to strict domestic regulation, especially nuclear reactors and toxic substances. It is usually only in the case of the global commons that an actual impact statement must be undertaken; otherwise, the requirements are generally much less burdensome.

The largest potential impact of the procedures on exports is on those financed through the Export-Import Bank's direct lending program. Under the Bank's procedures two initial determinations are required. One determination is whether the requested financing under the Eximbank's direct lending program constitutes a "major action". In determining whether or not an application constitutes a "major action", the General Counsel may consider the percentage of the project's total cost that Eximbank financing represents, the percentage of total financing for U.S. goods and services that would be covered by the Eximbank financing, the function of the Eximbank financed project component in relation to the overall purpose and operation of the project, whether the project will proceed without Eximbank financing, and the degree of control and responsibility that the Bank has over the planning and execution of the project.

The other determination is whether the Eximbank financing may have significant effects on the global commons, the environment of third countries not participating in the project, or the environment of the host country where the project involves a substance strictly regulated in the U.S. because its toxic effects on the environment create a serious public health risk. Nuclear exports are covered by separate procedures administered by the State Department.

In the event that both determinations are positive, Eximbank would prepare an environmental impact statement for projects affecting the global commons and a concise environmental review for projects which affect any of the other areas subject to the Order. These documents would be used by the Bank's Board of Directors to consider environmental implications before acting on a request for financial assistance. As permitted under the Executive Order, Eximbank's procedures also allow for the modification of the procedures whenever time constraints or strong foreign competition for export sales exist.

The Eximbank's procedures enable the Bank to take into account environmental considerations while simultaneously allowing it to carry out its statutory mandate to provide financial support for U.S. exports. Since September 4, 1979 -- the effective date of the procedures -- the engineering and legal staffs of Eximbank have devoted much time and effort to examining environmental considerations. Careful handling of each transaction, however, has prevented a substantial increase in the processing period for applications. The Bank has obtained environmental information from U.S. exporters and, to a lesser extent, from the foreign purchasers themselves. The Bank's experience to date suggests that the procedures should not adversely affect Eximbank's ability to provide export financing.

Private Sector Views

Initial private sector reaction to the regulations has been mixed. Environmental organizations have argued that the Executive Order provisions are ineffectual and that National Environmental Policy Act requirements should be applied abroad. Many companies and trade organizations, however, believe that E.O. 12114 presents a fair and appropriate balance of national priorities and that compliance should not be overly burdensome. Most exporters believe a more extensive (and less flexible) extraterritorial application of NEPA would have a serious impact on their ability to compete abroad.

Other companies have complained that procedures promulgated under E.O. 12114 are vague, and some state that until more experience is gained with them they will interpret them quite strictly -- even to the detriment of their overseas competitiveness. Many groups are taking a wait-and-see attitude while analyzing the application of the regulations on a case-by-case, agency-by-agency basis.

Several groups responding to the Federal Register notice felt that, to the extent that the procedures cause modifications in the exporting process, delays, extra costs, or foreign resentment, the regulations will reduce U.S. competitiveness and shift exports to other countries. Organizations objecting to the unilateral nature of these U.S. regulations have suggested that their implementation be postponed until international or multinational agreements can be reached in this area to neutralize the impact on our international competitiveness. One respondent suggested that foreign country of destination standards should constitute an acceptable alternative to applying U.S. environmental standards overseas.

The AFL/CIO, in its submission, reaffirmed its position that processes and products which have been banned in the United States because of potential hazards to the public or the environment should not be exported to other countries to the detriment of foreign workers. The AFL/CIO position is that the United States is playing a justified leadership role in this area.

Current Status and Continuing Developments

Procedures implementing the Executive Order have attempted to balance the difficult line between important but often conflicting interests. Agencies can, and are, analyzing the administration of their procedures and the impact the regulations have on the willingness and ability of U.S. business to compete abroad. As more experience with the regulations is gained by exporters and administrators, procedures will become more streamlined and the goals of the policy should be attained at minimum economic cost in terms of lost exports.

APPENDIX A. COMMENTS FROM THE PRESIDENT'S EXPORT COUNCIL

The President's Export Council was asked to submit comments on potential export disincentives, export promotion programs and U.S. trade policies in general. The comments and materials received from the Council are reproduced in this appendix.

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THE PRESIDENT'S EXPORT COUNCIL
WASHINGTON, D.C. 20230

June 16, 1980

The Honorable Philip Klutznick
Secretary of Commerce
14th St. & Constitution Ave., N.W.
Washington, DC 20230

Dear Mr. Secretary:

This letter is in response to the President's request for inputs from the President's Export Council concerning the report to Congress required by Section 1110 of the Trade Agreements Act of 1979.

As you know, Section 1110 directs the President to submit by July 15, 1980 a report on U.S. export disincentives and "the policies and programs required to strengthen the relative competitive position of the United States in world markets".

The legislative history of the Trade Agreements Act indicates the Congress expects that the President's July 15, 1980 report will take into account the new potentials for export trade resulting from the implementation of the "Tokyo Round" Multilateral Trade Negotiations and will be in such detail and comprehensiveness as to be an adequate basis for remedial legislation.

The President's Export Council, in its current form, was established by Presidential Executive Order on May 4, 1979. Its primary purposes are to formulate recommendations to the President on programs and policies to increase U.S. exports and to promote the development of a greater national export consciousness. As provided by its charter, the Council will expire at the end of this year. Its membership consists of the heads of the seven Cabinet agencies principally concerned with foreign trade, six leading representatives of the Congress (three Senators and three Congressmen), and a broad section of private sector representatives from industry, agriculture, labor, consumer groups, etc.

To work effectively, the Council established an Executive Committee and six subject-area subcommittees. These, with the Council itself, have been actively engaged for over a year in detailed studies of the various factors that determine or affect the U.S. export posture in relation to the world trading system. The Council is now engaged in preparing its final report, which will present its overall recommendations.

Since its inception, however, the Council has, from time to time, taken positions on currently-pressing trade policy issues, including the following recommendations on export disincentives:

- The Council has encouraged and supported the reorganization by the Administration of the governmental machinery that formulates and carries out U.S. trade and other foreign economic policies.

  Substantial improvements have been made by the Administration and further progress is underway.

  A government poorly organized to develop and administer sound trade policy is itself a serious export disincentive. The governments of our major trading competitors have in recent years been noticeably better organized than the U.S. Government to defend their worldwide trading needs and interests in a realistic and consistent manner and to support the export activities of their own firms.

  Special focus has been given by the Council in the area of government reorganization:

  - To assure effective implementation of the "Tokyo-Round" trade agreements, including provision to monitor foreign government compliance;

  - To establish and adequately staff a Foreign Commercial Service in the Department of Commerce; and

- To enable the Office of Export Administration, Department of Commerce, and the other government agencies that are involved to adopt the organizational and procedural changes in the administration of the U.S. export control program that are necessary to carry out the reforms mandated by the Export Administration Act of 1979. In this connection, the Council has emphasized that the current staffing requirements of OEA should be given priority attention.

- The Council supports larger direct-loan funding authorizations for the Export-Import Bank for the 1980 and 1981 fiscal years than the Administration has requested or the Congress has thus far voted. Unless the Bank is given substantial additional direct-loan lending authorization, it will not have sufficient funds to enable U.S. exporters to compete against the strongly-subsidized financing which foreign governments will be providing to their firms. A conservative estimate is that the Bank needs direct-loan lending authority of at least $5 billion in Fiscal year 1980 and again in Fiscal year 1981.

  The Council also urged that the Commodity Credit Corporation's lending authority should be maintained at an adequate level and placed on a self-financing revolving-fund basis.

- The Council has recommended liberalization of the U.S. tax laws that apply to the foreign-source income of Americans working overseas. The U.S. is the only major trading country that taxes such income and this policy is a serious competitive handicap for U.S. firms. Attached is the special report on this export disincentive by a Council Task Force.

- The Treasury Department is currently considering a proposal to narrow the application of the credit against U.S. income taxes for foreign taxes. The Council has advised the Treasury Department that adoption of this proposal in its present narrow form would have a serious negative impact on U.S. exports.

Foreign investments by U.S. firms have strong "pull-through" effects on U.S. exports and adoption of the proposed narrow interpretation would lessen the competitiveness of U.S.-owned foreign subsidiaries and thus would be another self-imposed competitive handicap on the parent U.S. firms.

- An important export disincentive, especially for small and medium-sized firms, is the complexity and red tape involved in exporting. A parallel disincentive is the greater marketing and selling expense involved in exporting, the need to carry accounts receivables for longer time periods, etc., and there are obvious risks in some parts of the world of expropriation, governmental instability, terrorism, etc.

  To better deal with these kinds of export disincentives, the Council:

  - Has welcomed the leadership of Senator Stevenson (a Council member) and others in the Congress and the increasing support within the Administration with respect to legislation to facilitate the greater use by U.S. firms of the trading company device.

  - Has also welcomed the effort of Senator Javits (a Council member) to obtain passage of legislation to enable the Overseas Private Investment Corporation (OPIC) to play a larger role in U.S. overseas investment.

- The Council has strongly urged that the antitrust issue as it applies overseas be substantially clarified. The Council supports S.1010, introduced by Senator Javits, to establish a commission to study the international application of the antitrust laws. S.1010 has been favorably reported out of committee and is now pending on the Senate floor. We urge the Administration to reconsider its opposition. In view of the great need to increase U.S. exports, every reasonable effort should be made by the U.S. Government to facilitate U.S. exports and overseas operations by freeing U.S. firms from

antitrust constraints or uncertainties where U.S. consumers are not adversely affected. The guidelines issued by the Department of Justice in January 1977 ("Antitrust Guide for International Operations") were an important step in this direction. But uncertainties still remain as to the Government's prosecutorial intentions and there are indications of a Governmental desire to regulate foreign subsidiary operations from an antitrust viewpoint where the effect on U.S. consumers is very tenuous indeed. The growing conflicts between the U.S. and other countries because of the extraterritorial applications of U.S. laws must also be considered.

Legislation now pending in Congress:

- To amend the Webb-Pomerene Act to provide a more effective antitrust exemption, to broaden the Act to cover services, and to make it applicable to trading companies; and

- To simplify application of the antitrust laws and deter unreasonable prosecutorial zeal (which, incidentally, was developed by the National Governors' Association, led by Governor Busbee, a Council member)

would be appropriate for early consideration by a study commission as proposed by Senator Javits in S.1010.

- The Council is in the process of considering the various extraterritorial competitive strictures unilaterally imposed on U.S. exporters, such as those resulting from the Foreign Corrupt Practices Act, the antiboycott legislation, and the use of export controls for foreign policy purposes.

  The basic question in this area is not the merit of the objectives sought to be attained (i.e., to prevent foreign bribery, to protect U.S. firms from improper involvement in foreign boycotts, to promote human rights, etc). Rather, the issue is the practicality of the resort to unilateral legislation, rather than resorting to international negotiations.

It does appear that this area of export disincentives has been costly to the U.S. in terms of lost exports while the benefits sought have been questionable in attainment.

- The Council worked closely with the Administration, the Congress, and the private sector to devise compromise legislation to protect permanently the confidentiality of competitive business information supplied to the Federal Government in connection with U.S. exports on documents called "shippers export declarations" (SEDs).

  This legislation has just this month been enacted by Congress.

  SED's had been accorded confidential treatment since the turn of the century, but disclosures were now threatened by recent attempts to apply the Freedom of Information Act and interim Congressional legislation last year to terminate confidential treatment on June 30, 1980.

  Again, this was a case where, absent adoption of the permanent legislation referred to above, U.S. firms would have been subjected to enforced disclosures of competitive information that would have benefited foreign competitors - who, of course, were in no way subject to comparable competitive handicaps.

The foregoing summary of Council recommendations on specific U.S. export disincentives deals with important legislative issues that should be addressed by the President and the Congress. But the most significant U.S. export disincentive is the continuing national attitude of overall indifference to the need for exports.

The peoples and governments of the major trading countries of Europe and Japan have for decades based their domestic economic policies on the precept "Export or die". In the United States, the very opposite has been and still is the case; exports have not been and still are not regarded as important.

In recent years, the talk and the public discussions in Washington and elsewhere in the country on matters relating to trade have been shifting dramatically so that it can now fairly be said that the idea of strong U.S. export performance is carrying the day. Almost everybody responsible for or importantly involved in U.S. economic affairs now pays lip service to the need to increase exports and to reduce our huge trade deficits. How-best-to-export has even become one of the national subjects for high-school and college debating tournaments.

The reasons for this change in the intellectual climate are not hard to find. The United States, which for so long after World War II was economically predominant and whose domestic economy was largely under its own control, has in recent years been "taking a bad beating" in world trade and the wounds have become serious. the U.S. has steadily been losing market share in world trade from approximately 25% in the 1950's, to around 15% in 1970 and then down to 12.2% in 1978.

On top of the large merchandise trade deficits of recent years - $31 billion in 1977, $34 billion in 1978, $29 billion last year - the projections are for even larger merchandise trade deficits to come: around $38 billion this year and $40-41 billion next year.*

But even though the magnitude of the U.S. trade problem now dominates what is being said in Washington about U.S. trade policies, the grim realities have not as yet been translated into meaningful Congressional action. The current plight of the Export-Import Bank is stark evidence of the sorry gap between word and deed.

Trade policy is an area where the problem is not uncertainty as to what should be done. It is well known what should be done. The problem is to develop the will to do it.

*These are the figures measuring imports and exports on the conventional free-alongside-ship (F.A.S.) basis, the new statistical method now being used by the Government - which adds insurance and freight costs to the import figures (C.I.F.) - will substantially increase the size of the deficits.

An idea is hard to stop when its time has come. The idea of an effective and paramount U.S. national export policy has not yet arrived. But the grim realities of our trading position are driving us to create the necessary and sufficient preconditions. An important aid will be a better developed national export consciousness.

To create a more positive public understanding and support for effective U.S. trade policies - a strong national export consciousness - is our greatest need in the trade area. We on the Council are striving to make our contribution.

Sincerely yours,

Reginald H. Jones
Chairman

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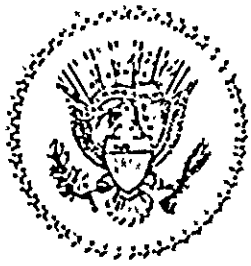

THE PRESIDENT'S EXPORT COUNCIL

SUBCOMMITTEE ON EXPORT EXPANSION

DECEMBER 5, 1979

REPORT OF THE TASK FORCE TO STUDY
THE TAX TREATMENT OF AMERICANS WORKING OVERSEAS

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THE PRESIDENT'S EXPORT COUNCIL
WASHINGTON D.C. 20230

December 10, 1979

The President
The White House
Washington, D. C.

Dear Mr. President:

The Executive Committee of the President's Export Council has asked me to express to you its strong concern over the adverse effects on exports of the present rules (Sections 911 and 913) concerning taxation of foreign earned income of Americans living overseas.

The Foreign Earned Income Act of 1978 has done little to alleviate the problems of differences in tax treatment between American citizens working overseas and their counterparts from competing industrial nations. The result has been that third-country nationals, who usually do not have the burden of paying taxes in their home countries on their foreign earned income, are employed instead of American citizens. This has brought about a sharp loss in the U. S. share of overseas business volume in vital economic sectors, largely because third party nationals tend to specify equipment manufactured in their home country, whereas American citizens would specify and order U. S. equipment with which they are most familiar.

A particularly disturbing example is the decline in the position of American contractors on projects in the Mid-East. According to McGraw-Hill, U. S. companies had contracted for $8.9 billion or 10.3% of the total contracts let in the Mid-East from June 1975 through April 1978. During the 13 months ending in June 1979, U. S. contractors received only $346 million or 1.6% of the total contracts awarded. The loss of U. S. jobs both overseas and at home to foreign competitors, and the accompanying loss of U. S. exports, comes at a time when it is crucial to maintain U. S. prestige and presence overseas and a firm emphasis on increasing our share of the world market.

The President's Export Council appointed a task force to study this problem. The following administrative recommendations, aimed at putting Americans who work in the private sector overseas on a more comparable tax footing with citizens of competing industrial nations, are adapted from this report.

- Regulations and interpretations in force under the current tax law concerning Americans living in camps in hardship areas (Section 911) should be simplified and made less restrictive, in keeping with the intent of Congress.

- The current tax law concerning allowances to employees for excess living costs incurred while working abroad (Section 913) should be interpreted in the least restrictive and simplest manner.

We have discussed these recommendations with Secretary Miller and would appreciate your endorsement of them.

The final task force recommendation is that work begin immediately to encourage enactment of new tax provisions directed to this problem. We have called upon a broad spectrum of the American export sector for comments on specific legislative points which would relieve the burden under which they now operate, and would be in the national interest.

I am sure it was not the Administration's intent, or that of Congress, to discourage the employment of Americans by U. S. business overseas. The tax law must be one that enables Americans to face the uncertainties of life abroad and serve as the leading edge of the export growth that is necessary if we are to maintain the leading economic role for the U. S. in today's world that is so essential to our welfare.

Respectfully yours,

Reginald H. Jones

Reginald H. Jones
Chairman

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THE PRESIDENT'S EXPORT COUNCIL SUBCOMMITTEE ON EXPORT EXPANSION

Task Force to Study the Tax Treatment of Americans Working Overseas

I. THE SITUATION

Despite the enactment of the Foreign Earned Income Act of 1978, Americans are still being taxed out of competition in overseas markets. The result is a sharp loss in the United States' share of overseas business volume in vital economic sectors. The current situation contributes to our negative balance of payments, a loss of U.S. jobs to our competitors, and the decline in U.S. presence and prestige abroad.

II. TASK FORCE RECOMMENDATIONS

Americans working overseas are essential to a viable export program. An increase in the number of Americans assigned abroad can increase our exports, reduce the negative balance of payments, enhance our country's image, and raise employment in the U.S.

Recognizing that it is in the best interest of our nation to encourage Americans to work overseas, the Task Force recommends the adoption of tax policies that are comparable to those of major competing industrial nations, none of which now tax citizens who meet overseas residency tests. We urge the development and enactment of new legislation to put Americans who work in the private sector overseas on the same tax footing as citizens of competing industrial nations. In the interim, the following remedial actions should be taken:

1. Regulations and interpretations in force under the current tax law concerning Americans living in camps in hardship areas (Section 911) should be simplified and made less restrictive, in keeping with the intent of Congress.

2. The current tax law concerning allowances to employees for excess living costs incurred while working abroad (Section 913) should be interpreted in the least restrictive and simplest manner.

3. Work should begin immediately to encourage enactment of a new tax law to put Americans working overseas on the same tax footing as citizens from competing industrial nations.

III. BACKGROUND

Foreign Trade Encouraged

Beginning in the 1920's, after the U.S. emerged from World War I as a major exporting nation, the income earned by Americans at work in foreign countries was virtually exempt or excluded from U.S. taxes, as a matter of public policy and by specific acts of Congress. The purpose was to encourage foreign trade. It was recognized that the export of U.S. goods and services depended, in large measure, on the presence of Americans in overseas markets.

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The U.S. tax policy was not unique. All of our trading partners, and certainly all of the world's major producing nations, had long excluded income earned by citizens at work overseas from taxation.

In the early 1950's some revisions were made in the tax treatment of U.S. citizens working overseas. The principal aim was to halt abuses by highly paid movie stars. These revisions altered foreign residency tests and placed a ceiling on the amount of foreign earned income that could be excluded. The income and allowances of most Americans working overseas was below the $20,000 limit, so they were not affected. They were not meant to be.

Additional technical adjustments were made during the 1960's in foreign residency tests and in the sums that could be excluded. By the mid-1970's, the effects of inflation — rising living costs and rising salaries and benefits for overseas American workers — had overtaken the amount of foreign-earned income that could be excluded from U.S. taxes.

Policy Shifts in 1976

Responding to unguided arguments that Americans overseas were being granted preferential tax treatment, Congress in 1976 reduced the exclusion to $15,000 and changed the manner in which it was computed so its maximum practical effect became about $3,000. The philosophy behind these provisions was directly contrary to the principles which had guided the United States' tax treatment of overseas Americans for more than 50 years. Instead of encouraging Americans to work overseas, the 1976 amendments actually discouraged such employment. In fact, even before the 1976 amendments, it was becoming less attractive to work overseas. Inflation was running at between 50 percent and 300 percent higher than domestic inflation, a fact that should have been recognized by increasing the $20,000 exclusion rather than decreasing it.

Further, the Tax Court ruled in 1976 that employer furnished housing was taxable to employees at full local rental value, rather than the value of similar housing in the United States. These rulings were interpreted as a strong indication that employer contributions to offset extraordinary overseas living expenses — or so-called "keep whole" contributions — were taxable to overseas employees, whereas such amounts often may have gone unreported up to that time.

These rulings, when combined with the 1976 tax code revisions, produced effects that Congress and the Tax Court did not foresee. For example, in the oil rich Middle East, the costs to an employer of maintaining an American worker at something approximating the standard of living he or she would have enjoyed at home could exceed the actual salary paid to that worker by three or four times. As a result, some Americans overseas became liable for more taxes than they received in real income.

The 1976 tax policy shifts on foreign earned income actually amounted to a substantial tariff on our own goods and services by our own government.

Foreign Earned Income Act of 1978

After belatedly postponing the effective date of the tax code revisions, Congress moved in 1978 to remedy the devastating mistakes of 1976 with the Foreign Earned Income Act. Unfortunately, the 1978 Act is inadequate. The House of Representatives had passed a realistic bill, but the law that was eventually enacted represents a compromise with a more

restrictive Senate version. Section 911 of the Act provides a $20,000 exclusion for overseas Americans living in qualified camps in remote hardship areas. Section 913 provides deductions for certain allowances for extraordinary overseas living expenses under fairly strict qualifications. Both Sections 911 and 913 are very complex. Moreover, regulations drafted by the Internal Revenue Service under the new law effectively reverse the intent of Congress by compounding the complexities beyond reason.

Even if the Foreign Earned Income Act of 1978 is interpreted in the least restrictive way possible, it is clear that overseas Americans are not currently competitive with citizens of other nations in terms of taxes.

IV. RATIONALE FOR RECOMMENDATIONS

Americans at work overseas direct business to our domestic economy. If we are to increase exports in order to bring our trade accounts into balance, we must encourage more U.S. citizens to accept assignments with American business overseas. Concurrently, we must continue to be sensitive to the geo-political ramifications of having more Americans working abroad. Overseas employees of American business are seen as representatives of our country. Through their participation and visibility in international business affairs, they can function as goodwill ambassadors whose work exemplifies America's ideals and values.

To achieve these benefits will require, among other things, that current tax laws bearing on foreign earned income be changed. At present, our nation's tax policies discourage the employment of Americans overseas. Many American companies doing business overseas, especially in the manpower-intensive service industries, are sending American employees home in order to keep some vestige of market share. For example:

- Recruiting firms in France, Germany, Italy and the United Kingdom report they are swamped with requests for qualified citizens of their respective countries to replace Americans who are being forced home by U.S. tax policies.

- Several leading U.S. contractors in the Middle East have reduced their American staffs by more than half, and adopted hiring policies overseas that specifically exclude Americans on future work.

- The University of Petroleum and Minerals in Saudi Arabia says Americans now make up less than 30 percent of its teaching staff, compared to more than 80 percent several years ago.

Replacing American employees with citizens of other countries is the only way American companies can remain competitive. This means that as U.S. companies operating overseas "de-Americanize," sales of goods and services move away from this country and toward the competing industrial nations.

- A report by the Government Accounting Office suggested that the impact of current U.S. tax policies for overseas Americans might be very significant — with a reduction of 5% or more of total exports or a loss in overseas sales of at least $6 to $7 billion, based on available data. And the GAO report cautioned that its projections might well prove conservative.[1]

[1] Impact on Trade of Changes in Taxation of U.S. Citizens Employed Overseas. Report to the Congress. Comptroller General, February 21, 1978, page 10

- The Commercial Counselor of the Embassy of Saudi Arabia recently observed:

> "U S tax treatment of American companies doing business in foreign countries makes them less competitive vis a vis European and Japanese (and other) companies, which receive better tax treatment from their governments In the case of Saudi Arabia, it is noticed that American companies, in order to overcome the higher costs resulting from the unfavorable tax treatment, have tended to hire non American engineers and other skilled personnel Naturally, these prefer equipment and specifications originating in their countries (European or Japanese, etc.), which represent a loss in American exports to Saudi Arabia. Thus, the end result of U S tax treatment of American personnel working abroad has been a net loss of American sales abroad "

That means a loss of jobs in our economy Estimates vary Using the low end of the Department of Commerce estimate that for every $1 billion in new economic activity between 40,000 and 70,000 jobs are created, a loss of 5% of our current overseas export volume - or about $7 billion in economic activity would produce a job loss of 280,000 Using the same Department of Commerce figures, if the U S decided on policies to increase exports by at least $30 billion annually as a means of bringing the trade accounts into balance, at least 1.2 million new jobs would result

If we increase our nation s exports we will increase job opportunities for Americans at home and abroad In order to achieve such improvement, we must re assess our tax policies. We also must write new tax laws directed at placing Americans on a competitive footing with other nationals in overseas markets (See Chart Below)

V. CONCLUSION

The principle underlying the taxation of Americans working in other countries should be to encourage, rather than discourage, employment with U S business overseas. The implementation of this principle through changes to the Internal Revenue Code will increase the number of U.S. citizens who are willing to work overseas, resulting in an increase in American exports.

Respectfully submitted,

Robert Dickey III
John Wood Brooks
D.L. Commons
Maurice Sonnenberg

December 5, 1979

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Comparison of Tax Policies for Overseas Employees

	Tax on Salary	Tax on Incentive Bonuses	Tax on Benefits (Retirement Health Insurance Etc.)	Tax on Cost of Living Allowances	Tax on Assigned Income Earned Out of Home Country	Notes	Government Subsidies (% involved)
United States	Yes[1]	Yes	Yes	Yes[2]	Yes	[1]$20 000 exclusion under Section 911 for those in qualified camps [2]Certain deductions permitted under complex Section 913 tests	No
Japan	No	No	No	No	No[1]	[1]Rental, interest, etc. on off shore investments totally exempt from taxation during non residence status only	Yes
Italy	No[1]	No	No	No[2]	Complex formulas to discourage foreign investments	[1]Complex non residency requirements. [2]Limitation placed on daily expenses for home leave and R&R	Government owned companies
France	No[1,2]	No	No	No	Complex formulas	[1]Accountants accompanied tax laws for dual residency - while complained - very complex [2]Recent government policy aimed to encourage more French engineers to accept overseas work	Government owned companies
Korea	No	No	No	No	No	Most liberal policies with respect to individuals - Korea committed to exports of domestic unemployment	Yes
Germany	No[1]	No[2]	No	No[3]	Some limitations Generally liberal	[1]Complex non residency requirements aimed at stays of less than 6 months. [2]Complex definitions [3]Some limitations designed to reduce expenses	Few
Canada	No[1]	No	No	No	No	[1]Accompanied tour only. If family of head of household remains in Canada all worldwide earnings subject to full taxation	No
Sweden	No	No	No	No	No	[1]Recently liberalized tax policies in order to encourage acceptance of overseas assignments	Few
United Kingdom	No	No[1]	No[2]	No	Complex requirements	[1]UK recently liberalized tax policies in order to encourage [2]Some limitations	Few

Compiled from data provided in Worldwide Property and Business International S.A./Consultex S.A. a multinational study The Expatriate Employee 1979

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PRESIDENT'S EXPORT COUNCIL
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Ms. Herta Lande Seadman
Deputy Commissioner
New York State Department of
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Honorable Adlai E. Stevenson
Member of Congress

C. William Verity, Jr.
Board Chairman and Chief Executive
Officer
Armco Inc.

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PRESIDENT'S EXPORT COUNCIL
SUBCOMMITTEE ON EXPORT EXPANSION

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Ernest B. Johnston, Jr
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Honorable Stanley Marcus
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Industry and Trade
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Export Import Bank of the
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President
Schucker and Company, Inc

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Maurice Sonnenberg
Investment Consultant

Honorable Adlai E. Stevenson
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Chairman of the Board
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Mr. Paul Hall
Vice Chairman of the PEC
President, Seafarers International
Union of North America

APPENDIX B. FEDERAL REGISTER NOTICE

To solicit comments on export disincentives and export promotion programs, a notice of this review was published in the Federal Register on April 29, 1980. A copy of that notice is reproduced in this appendix.

DEPARTMENT OF COMMERCE

International Trade Administration

Request for Comments on Export Promotion Functions and Potential Disincentives to U.S. Exports

AGENCY: U.S. Department of Commerce, International Trade Administration.

ACTION: Solicitation of comments.

SUMMARY: The Federal Government is conducting an extensive review of the executive branch's export promotion functions and potential regulatory and programmatic disincentives to U.S. exports. The impact on exports to both market and non-market countries is included in this review. The review is required by the Trade Agreements Act of 1979 (Pub. L. 96-39), the implementing legislation for the agreements arising from the Multilateral Trade Negotiations. In order to ensure the thoroughness of this review, the Government wishes to draw upon the expertise and input of the widest possible range of interested and knowledgeable parties. The Department of Commerce, therefore, requests comments and information relevant to the issues addressed by this review from representatives of the business community and other interested persons and organizations. Persons or organizations affected by issues relating to small- and medium-sized companies are especially encouraged to respond. The Department must stress, however, that it is soliciting only information from the public that may be made part of the public record.

In addition to this review, subsection (b) of Section 1110 of the Trade Agreements Act of 1979 requires a study of the factors affecting the competitive position of domestic producers. Information about the subsection (b) study which will be conducted separately is provided by the Office of the U.S. Trade Representative (USTR) in today's edition of the Federal Register.

DATES: All comments received before May 30, 1980 will be considered.

ADDRESS: Written comments should be sent to: Mr. Franklin J. Vargo, Acting Deputy Assistant Secretary for Policy Planning and Analysis, International Trade Administration, U.S. Department of Commerce, Information Code—1110/HPM, Room 2036, Washington, D.C. 20230.

FOR FURTHER INFORMATION CONTACT: Mr. Henry P. Misisco, Director, Trade Research Division, Office of Planning and Research, International Trade Administration, U.S. Department of Commerce, Room 2036, Washington, D.C. 20230, telephone (202) 377-4023.

SUPPLEMENTAL INFORMATION:

Legislative Mandate

Section 1110(a) of the *Trade Agreements Act of 1979* (Pub. L. 96-39) states:

> The President shall review all export promotion functions of the executive branch and potential programmatic and regulatory disincentives to exports, and shall submit to the Congress a report of that review not later than July 15, 1980. The report should make particular reference to those activities which enhance the role of small- and medium-sized businesses in trade.

Export Promotion

The Federal Governmental provides a variety of export promotion and assistance services to private firms. Information on overseas market potential for U.S. products, on techniques of doing business in foreign countries, and on other export-related topics is disseminated through numerous publications. These include Foreign Economic Trends Reports, Global Market Surveys, Overseas Business Reports, and the Overseas Export Promotion Calendar. Seminars and workshops on exporting are held regularly throughout the United States. Special programs exist to help U.S. firms locate foreign commercial representatives, evaluate individual foreign firms, receive specific trade leads, and obtain information on large infrastructure and industrial systems projects. The Government helps provide direct exposure of U.S. products to foreign buyers overseas through trade fairs, exhibitions, and catalog shows. It also sponsors overseas trade missions for U.S. businessmen, and helps to bring potential foreign buyers to the United States.

Financial assistance for exporting firms is available from a number of sources. The Export Import Bank (Eximbank) offers both direct loans for large projects and equipment sales that require longer-term financing, and medium term guarantee programs for smaller scale capital goods sales. The Small Business Administration (SBA) offers several types of financing to smaller firms in the export field, including long- and short-term loans and revolving lines of credit. The Overseas Private Investment Corporation (OPIC) provides investment guarantees to U.S. firms interested in making investments in developing nations. U.S. exporters may also avail themselves of certain tax deferment advantages by utilizing the Domestic International Sales Corporation (DISC) provisions of the U.S. Tax Code.

Several recent developments, in addition to the programs noted above, will assist in the expansion of U.S. exporting activities. The Worldwide Information and Trade System (WITS) is a computerized market data system currently under development. It will contain accessible data on U.S. suppliers and products, potential foreign customers and trade leads, market research information, trade and economic statistics, data on promotional events, and information on further sources of export advice and assistance. The newly established Trade Advisory Center (TAC) provides a forum for business/government dialog on trade policy. Industry can bring to the Center problems in such areas as Multilateral Trade Negotiation (MTN) implementation, foreign trade barriers, import competition, and international trade policies. Agreements arising from the Multilateral Trade Negotiations have created new opportunities for exporting through the reduction or elimination of many tariff and nontariff barriers to trade.

Concerned private sector representatives are asked to comment on the effectiveness of existing export promotion programs, the need for new programs, and on specific information and other assistance needed by business to take maximum advantage of the new opportunities resulting from the MTN. Comments on the effect of export promotion programs on small- and medium-sized businesses are especially encouraged. You are also asked to indicate any specific export promotion techniques used by foreign countries

that you believe are especially effective. Please identify the country or countries and describe the programs or incentives.

Export Disincentives

Exports can be affected by many U.S. laws, policies, or regulations, either directly (e.g., restrictions on specific commodities or markets) or indirectly (e.g., increased production costs). There are export controls on items for reasons of foreign policy, national security, and short supply. There are restrictions on the export of hazardous substances and the re-export of certain U.S.-origin goods. Each of these controls is intended to achieve a specific goal which is in the interest of the United States such as deterring international terrorism. However, some of these controls may be negatively affecting U.S. trade or exporters' willingness to develop further foreign markets.

Uncertainty about the availability of foreign tax credits (Sections [illegible]1 and 903 of the Tax Code) and uncertainty about the regulations regarding the taxation of U.S. citizens working abroad (Sections 911 and 913 of the Tax Code) may be affecting employees' and firms' decisions to operate in foreign markets. The allocation of research and development expenditures to foreign source income (Section 861 of the Tax Code) may also have economic consequences for U.S. exporters or potential exporters. Limitations on Webb-Pomerene antitrust immunity for export associations or uncertainty about the application of anti-trust laws to U.S. international business may affect a firm's or an industry's readiness to export.

Other laws, regulations or government policies may affect export sales or negatively impact on the way in which U.S. export business is conducted. These may include domestic regulations such as environmental controls which affect the cost of the product or shipping practices which affect the delivery and distribution of the product to export markets.

Private sector representatives are asked which, if any, of these, or other laws, policies, or regulations they believe adversely affect their exports, either directly or indirectly, and specifically how their exports are affected (e.g., lost opportunities because of lengthy processing procedures, increased production costs, etc.). Specific comments on any impact export disincentives may have on small- and medium-sized businesses are especially encouraged. If possible, please provide an estimate of the percentage of your export sales affected by these laws or regulations and an estimate of how much larger (percent) your exports would be in the absence of these disincentives. The law(s), policy(policies), or regulation(s) which affect(s) trade may have varying impact depending on the commodity or geographical destination area. If this has been your experience, please indicate the areas and commodities that are most affected.

Public Information

Private sector representatives are asked to be as specific as possible about the effects of promotional activities and regulatory or programmatic disincentives on their exports. However, respondents are reminded that the Department of Commerce is soliciting only information that may be quoted publicly. No "Confidential Business Information" will be accepted by the International Trade Administration. All "Confidential" information shall be returned to the commentor and may be re-submitted as non-confidential, or may be withdrawn.

All public comments to be considered for this study will be a matter of public record and will be available for public inspection and copying. In the interest of accuracy and completeness, comments in written form are preferred. If oral comments are received, they must be followed by written memoranda which will also be a matter of public record and will be available for public review and copying. Communications from agencies of the United States Government or foreign governments will not routinely be made available for public inspection.

The public record concerning these regulations will be maintained in the International Trade Administration's Freedom of Information Records Inspection Facility, Room 3012, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230. Records in this facility, including written public comments and memoranda summarizing the substance of oral communications, may be inspected and copied in accordance with regulations published in Part 4 of Title 15 of the Code of Federal Regulations. Information about the inspection and copying of records at the facility may be obtained from Mrs. Patricia L. Mann, the International Trade Administration's Freedom of Information Officer, at the above address or by calling (202) 377-3031.

Dated: April [illegible], 1980.

Franklin J. Vargo,

Acting Deputy Assistant Secretary for Policy Planning and Analysis, International Trade Administration, U.S. Department of Commerce.

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APPENDIX C. SUMMARY OF FOREIGN SERVICE POST COMMENTS

U.S. Foreign Service posts were consulted for their views on export promotion and export disincentives. Their first-hand information was solicited about not only other countries' approaches to the issues, but also the effect of current U.S. policies, laws and regulations on U.S. exports. Responses to a request for information were received from 51 posts, representing countries accounting for 80 percent of total U.S. exports in 1979. The distribution of the posts' responses is discussed below, and depicted in Figure 1.

U.S. EXPORT DISINCENTIVES

The embassies reported on a number of U.S. laws, regulations and policies inhibiting U.S. exports. In general, export disincentives were reported most often by posts in less developed countries. Several embassies in industrialized countries specifically indicated that potential disincentives had little or no impact. LDC posts, however, tended to report one or more disincentives. Those mentioned most frequently were the taxation of foreign earned income, the Foreign Corrupt Practices Act and export controls.

Taxation

Taxation of foreign earned income was the issue most often cited as having a negative effect on U.S. exports. Over half of the posts reporting mentioned taxation issues; many of them also observed that this was the most important disincentive to U.S. trade in their countries. They pointed out that: (a) U.S. price competitiveness was affected if U.S. companies hired American citizens abroad, and (b) U.S. supplier sales may be lost when American companies hired foreign nationals, who would be more likely to specify products from their own countries in major projects.

While most posts did not provide adequate evidence of the effects of taxation on U.S. exports to their countries -- other than mentioning frequency of business complaints -- a number did submit examples which indicated a substantial adverse effect on U.S. business abroad. The embassy in Saudi Arabia, for example, reported several illustrative cases where U.S. tax policies have adversely affected the activities of U.S. companies, including:

> A major U.S. contractor told an embassy officer that in a contract involving a manpower component of 300, where typically one-third used to be U.S. citizens currently only three percent will be Americans, 30 percent British and the remaining two-thirds from Asian countries. Those few Americans are the absolute minimum they must include due to their corporate experience and loyalty - he said - since Americans no longer have any competitive advantage in terms of skills or other qualifications.

Several embassies, among them Qatar and Venezuela, reported that American firms have lost major project bids due to higher costs needed to maintain American employees. Qatar reported:

FIGURE 1. Distribution of Foreign Service Post Responses by Topic

Topic	Number of Responses on the Topic*
	1 10 20 30
Own-country promotion and financing incentives	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Taxation	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Foreign Corrupt Practices	xxxxxxxxxxxxxxxxxxx
Promotion and financing by third countries	xxxxxxxxxxxxxxx
Export controls -- general	xxxxxxxxxxxxx
Antiboycott	xxxxxxxxxxxxx
Antitrust/Webb-Pomerene Trading Companies	xxxxxxxxxxx
Arms Controls	xxxxxxxx
Financing	xxxxxxx
Nuclear Controls	xxxx
Ocean Freight Rates	xxxx
Travel Advisories	xxx
Environmental Controls	xx
Cargo Preference	x

* A total of 51 embassies responded to the request for comments.

> American firms have not been awarded a major construction project in Qatar. The sale of American products has been hampered by the inability of U.S. firms to maintain personal contact with Gulf businessmen. American firms that are present in Qatar rely heavily on European experts in order to cut costs. This severely restricts trade opportunities. The importance of personal contact cannot be overstated. American vehicle manufacturers have lost this lucrative market to the Japanese who have stationed Japanese technicians to operate maintenance facilities. It is not possible for Americans to be competitive as long as they are taxed while competing nationalities are tax-free.

Venezuela's example was even more specific:

> In a bid to provide approximately 20 foreign engineers for five years to the local state-owned steel mill, a Japanese firm bid about 13 million dollars; the competing U.S. company, about 16 million. The U.S. company calculated that were U.S. engineers not required to pay U.S. income tax while abroad, their bid could have been reduced by 1 to 1-1/2 million dollars. A high official of the state-owned steel mill stated that the company was willing to pay some differential for U.S. expertise, but not the 23 percent represented by this instance.

Foreign Corrupt Practices Act

Nineteen embassies reported that the Foreign Corrupt Practices Act constituted an export disincentive. Posts commented that the uncertainty perceived by U.S. businessmen and the lack of clear guidelines in the Act hindered doing business abroad. Posts also noted that businessmen often tended to err on the side of caution, foregoing potential export sales rather than risk litigation.

The most significant reported problems with the FCPA arose in those countries where "grease" payments are an accepted means of doing business or anywhere that third country suppliers "play by a completely different set of rules." Perhaps the best example of the effect of the FCPA on U.S. exports comes from the embassy in Oman:

> Local U.S. lawyer reports that recently $20-30 million deal was lost to U.S. firm largely because of delays caused by lengthy struggle to ensure FCPA compliance. Same lawyer indicates that a $20 million deal was definitely lost to U.S. firm because Omani Government official/businessman with whom U.S. firm was attempting to deal was insulted and exasperated by firm's attempts to protect itself against possible future FCPA security. Kindest comment that post has heard from Omani about FCPA is that it is "stupid". Overall economic loss to American business resulting from FCPA is unknown but surely major.

Export Controls

Export control was another topic frequently cited by posts as an export disincentive. The responses, however, were diverse, ranging from general comments about licensing delays to specific observations about types of controls, such as arms or nuclear controls.

Arms controls were mentioned most often. All comments were from LDC posts, in Latin America (4), the Middle East (3), and Africa (1). Posts reported business complaints that the controls hamper their efforts in initiating the sale of arms. Competitor nations often offer comparable equipment at attractive terms without the governmental clearances required by the United States. Further, sales of equipment for civilian use listed on the Munitions Control List are inhibited by U.S. policy, according to these reports. The embassies in Argentina and Chile both observed that the Humphrey-Kennedy Amendment to the Foreign Assistance Act precluded U.S. arms sales. The embassy in Kuwait, on the other hand, noted that "Public Law 95-384 forbids American military and diplomatic personnel from assisting American companies in the sale of military equipment and service to foreign governments. The embassies of other major arms suppliers to Kuwait are under no such restriction."

Four embassies reported problems with nuclear controls, stating that U.S. policy caused countries to turn to other suppliers for equipment and services. Most other post responses on export controls centered on licensing delays and the effect this had on U.S. suppliers' reputations and competitive sales ability. Typical of the comments was the report from India:

> Delays in issuance of licenses for certain electronic products and components, including computers, continues to be a significant disincentive. Even in cases where favorable decisions have ultimately been taken for exports of advanced computers, they have frequently come too late for U.S. suppliers to clinch export sales. Total potential market for imported high technology computers/peripherals during next 3 years is at least $100 million, of which U.S. manufacturers should have 80 percent if licensing policy can be clarified and possibly liberalized.

Antiboycott Legislation

Antiboycott legislation was mentioned by 13 embassies. The legislation's effect on exports in their respective countries varied from a minor problem (5 posts) to a serious deterrent (5 posts).

Some posts noted that while their host countries' governments had boycott provisions, their enforcement of the rules was weak. Embassy Cairo reported that the Egyptian Government discontinued its boycott law in January after signing the peace treaty with Israel.

Posts relaying serious problems commented that the antiboycott laws have made it difficult -- sometimes impossible -- for U.S. businessmen to compete in some foreign markets because they prevent these businesses from complying with local boycott provisions or furnishing boycott-related information. Some posts reported that the laws particularly discourage small and medium-sized U.S. firms, which cannot "afford the full-time legal counsel required to provide case-by-case advice on what is permissible under the regulations." Some small firms apparently lose potential sales rather than undergo the "high cost of learning how to work with the complicated boycott regulations and fear that they will unwittingly still get themselves into difficulty with U.S. Government agencies." The complexity of the two conflicting sets of regulations -- Commerce and Treasury -- also was mentioned as an export disincentive.

Antitrust Issues

Eleven posts mentioned antitrust issues. Most of the comments suggested that U.S. companies have found it difficult to bid successfully on major projects because U.S. antitrust laws inhibit the formation of consortia. The embassy in Saudi Arabia reported one senior U.S. company official's contention that if U.S. firms were to combine, their share of major projects in the Kingdom would be overwhelming.

Other embassy cables reported antitrust inhibitions on selecting a "chosen instrument" to compete with foreign bidders in a country and the need to modify the Webb-Pomerene Act to include services and strengthen the antitrust exemption. Embassy Bonn stated that German subsidiaries of U.S. corporations resent the extraterritoriality of U.S. antitrust laws, but also noted that it was not clear if this resentment affected sales and purchase decisions.

Two embassies mentioned export trading companies as antitrust issues. The Korean post asserted that the ambiguities of U.S. antitrust legislation and lack of clear-cut guidelines permitting U.S. firms to organize trading companies similar to those of the Japanese adversely affected U.S. exporters. The embassy in Liberia expressed delight that the U.S. Government was considering removing the antitrust restrictions on the formation of broad-based export trading companies and mentioned the success of an American trading company which has operated in Liberia for over 20 years.

Export Financing

Export financing was another area of concern reported by a number of embassies. Seven posts reported either that Eximbank financing was not available in sufficient quantity to meet the needs of U.S. exporters, or that financing was totally unavailable. Some posts commented that the Eximbank's financing terms were not as favorable as other countries', and that U.S. financing was more difficult to obtain. Embassy Mexico said that the Eximbank was unable to match the "loss leader" financing of Japanese and European competitors, while the post in Saudi Arabia reported that Saudi firms sometimes favor non-U.S. suppliers because of more attractive financing terms offered by them. The latter post stated:

> In one instance a $60 million business headquarters was entirely built with French construction materials despite the fact that the company owners expressed a preference for U.S. products. French government-subsidized trade financing provided 60 percent of the complete cost of the building, at 7 percent interest charged on a five year pay-back. The attractive financing terms assured that the project would provide a net positive cash fl to the Saudi company even before building completion.

The embassy also observed that a lack of U.S. Government financial support for bid, performance, and advance payment guarantees particularly harmed small and medium-sized U.S. firms vis-a-vis both large American and third country firms.

Three posts commented on the effects of prohibiting the use of Eximbank financing in their countries. The embassy in Chile stated that "The cessation of even minimal Eximbank operations including the removal of FCIA insurance coverage, as U.S. Government measures in the Letelier-Moffitt case....promise to hurt U.S. sales more than we had feared." The embassy in South Africa noted that while the short-term effects of the Evans Amendment of 1978 to the Export-Import Act (prohibiting the use of any Eximbank facilities by South African companies under most circumstances) were very limited, the prohibition did seem to pose difficulties for smaller American exporters without the resources or contacts to arrange alternative financing, or who cannot absorb the insurance risk themselves. Also, the embassy in the German Democratic Republic said that, because country eligibility for Eximbank financing is tied to MFN status, U.S. companies have been prevented from bidding successfully on major projects.

Individual Embassy Comments

In addition to these major issues, individual posts commented on a variety of other potential disincentives, such as freight rate disparities, Middle East travel advisory, environmental standards, cargo preference requirements, and other topics. This section summarizes each embassy's response on the issues affecting exports to each country.

Argentina. The embassy stated that export controls, the Foreign Corrupt Practices Act, and taxation of foreign earned income are the most important disincentives to trade with Argentina. On arms controls, the embassy pointed out that the Humphrey-Kennedy Amendment to the Foreign Assistance Act has removed the United States from consideration as a source of at least $3 billion worth of arms purchased by Argentina in the past two to three years. The restrictive U.S. nuclear policy has also caused Argentina to reach out to other suppliers for equipment and services.

Australia. The embassy reported that U.S. antitrust laws are seen as the most important disincentive, while the Foreign Corrupt Practices Act, the antiboycott statutes and U.S. tax laws are viewed as less important factors.

Austria. The embassy did not report on U.S. export disincentives.

Bahrain. The embassy cited arms export controls, taxation of foreign earned income, antiboycott regulations and the State Department travel advisory as potential export disincentives, but noted it could not point to any specific loss of export opportunities. The embassy stated that the main disincentive to exporting in Bahrain is American firms' ignorance of or indifference to Bahrain's small but promising market and utility as a regional distribution and services center. Further, other governments provide more promotional support of exports. "When it comes to government export promotion in Bahrain, we are just plain outgunned."

Bangladesh. Since most U.S. exports to Bangladesh are AID-financed, U.S. disincentives were seen by the embassy as having only a limited effect. However, U.S. engineering, business consulting and service firms view the taxation of foreign earned income as a serious disincentive, reducing the

competitiveness of U.S. firms and encouraging the hiring of third country nationals. The Foreign Corrupt Practices Act is also seen as a definite but immeasurable disincentive.

Belgium. The embassy stated that it has not been able to identify any significant disincentive effects on U.S. exports to Belgium. It noted, however, that the U.S. practice of taxing income enrned abroad has made it uneconomical to maintain the same level of U.S. expatriate employment as in the past.

Canada. The embassy did not comment on U.S. export disincentives.

Chile. The embassy stated that the most important disincentive to U.S. exports to Chile was the embargo on arms deliveries; the Kennedy Amendment, which proscribes the sale of U.S. munitions list items to Chile, was mentioned as affecting not only U.S. sales of those items but also the sales of non-munitions list items such as trucks, trainer aircraft, radar, and some other electronics. Contracts for such items are being awarded to other suppliers who can assure delivery. In addition, the taxation of foreign earned income and the prohibition against using Eximbank financing and FCIA insurance were cited as making U.S. firms increasingly uncompetitive.

Czechoslovakia. The embassy did not report on U.S. export disincentives.

Ecuador. The embassy reported that U.S. tax policies, in particular, and possibly antitrust are thought to have hurt U.S. engineering/construction firms in competition against European, Japanese, and other consortia for a major hydro-electric project. Further, U.S. arms control policies have resulted in a significant shift by the Ecuadorian military to European sources for their military needs.

Egypt. The most widely criticized disincentive to U.S. exports, according to the embassy, is the taxation of foreign earned income. This handicap is believed to affect small- and medium-sized business most severely. While some firms hire foreign nationals to represent them, such persons are viewed as less likely to refer business opportunities to U.S. firms.

The Foreign Corrupt Practices Act was also mentioned. Some firms have chosen to forego business deals rather than to attempt to determine the applicability of FCPA.

Federal Republic of Germany. The embassy reported that, while difficult to demonstrate, export controls have led to some sales losses; German firms may choose the speed of delivery of European technology over more advanced U.S. technology. In effect, the controls tend to make potential purchasers think twice before purchasing U.S. products on the list.

American business, according to the embassy, views U.S. tax policy as the most serious problem; its effects are most keenly felt in the replacement of U.S. business executives by German executives who cost less. U.S. antitrust laws may inhibit firms bidding on joint projects since standard German business practices include greater cartelization and more joint pricing policies than are allowed under U.S. law. Antiboycott laws may affect U.S.

firms engaged in joint projects with German firms, particularly in cases where the German firm has the major contract and the U.S. firm, acting as a subcontractor, is called upon to agree to illegal statements or forfeit the contract.

Other disincentives that were reported include costs of environmental legislation, bureaucratic red tape, and a growing feeling of insecurity and instability about contracts. These problems are mentioned by both U.S. and German businessmen as affecting U.S. exports, although the effects are difficult to quantify. In addition, U.S. business representatives complain about a lack of U.S. Government support for export financing, claiming that the German Government is more supportive. The embassy noted that statistics do not support this widely held perception.

Finland. The only disincentive to U.S. exports to Finland cited by the embassy involves export controls on goods going to the Soviet Union. The ban on U.S. exports of high-technology electronics was said to impede Finnish deliveries to the Soviet Union of oil-drilling platforms and other Finnish products that contain U.S. components. It was reported that Finnish firms producing such goods were seeking less restricted sources of supply.

France. The embassy reported that U.S. disincentives probably have little impact on U.S. exports to France. It did mention, however, that the taxation of foreign earned income could reduce the U.S. presence overseas with some adverse impact on U.S. sales.

German Democratic Republic. The embassy noted the inability of U.S. firms to compete with suppliers from other OECD countries for turnkey projects, due to the attractive financing terms offered by competitor nations. The fact that country eligibility for Eximbank financing is tied to MFN status for the country in question has resulted in a blanket denial of such financing to the GDR, which has not been granted MFN treatment. U.S. companies are either being ruled out before they have a chance to bid on major projects or are losing out in the home stretch due to their inability to offer a competitive financing package.

Ghana. The embassy noted that, while there is no evidence of U.S. export disincentives in Ghana, there has been a 38 percent decline in U.S. exports to the country since 1977. Ghana's deteriorating economic situation and lack of foreign exchange have been the major reasons for this decline, coupled with the unwillingness of U.S. banks and financial institutions to offer export credit.

Greece. The embassy did not report on U.S. imposed export disincentives.

Iceland. The embassy reported that there are no disincentives to U.S. exports.

India. The embassy reported that delays in the issuance of licenses, especially for certain electronic products and components, including computers, create a significant disincentive to U.S. exports to India. Often, Indian end-users have turned to competitors.

Indonesia. The embassy cited AID funding of feasibility studies, the Foreign Corrupt Practices Act, and taxation of foreign earned income as important export disincentives. The FCPA has kept U.S. firms from aggressively seeking business in Indonesia. Firms from other countries do not face restrictions on allowable commissions. The taxation of foreign earned income has increased the cost of employing U.S. nationals by 20 percent over the cost of hiring third country nationals.

Iraq. The embassy cited antiboycott regulations as having an important impact on bilateral trade with Iraq. Despite an Iraqi mechanism for boycott exemption if imports from the U.S. are deemed to be in the national interest (a mechanism that has resulted in a doubling of U.S. exports to Iraq since 1977), American firms continue to lose "hundreds of millions of dollars in potential business because of boycott problems." Importing agencies in the state-controlled economy are selective in granting boycott exemptions, and some, in areas where U.S. products would be competitive, make no exceptions.

The embassy noted that it is difficult to accurately measure the impact of the regulations since the prohibition against circulating tenders with boycott language prevents American business from learning about trade opportunities in Iraq. In recent instances where U.S. firms have submitted offers, there is evidence that the boycott problem was a major factor in decisions to award contracts to others.

Ireland. The embassy reported that they have heard no complaints by U.S. businessmen that U.S. export disincentives have significantly affected their marketing or sales in Ireland. However, the embassy did state that controls on nuclear exports could become a factor if Ireland decides to build a nuclear plant.

Italy. The embassy did not comment on U.S. export disincentives.

Japan. The embassy reported that U.S. business complaints include the Foreign Corrupt Practices Act, increased costs due to U.S. environmental standards, and restrictions on trading companies and consortia in the Webb-Pomerene Act.

Jamaica. The embassy reported that there are no disincentives to U.S. exports.

Jordan. The embassy stated that taxation of foreign earned income amounts to a significant disadvantage in dealing with competitors. While U.S. firms have placed serious bids on almost all major projects in Jordan, they have not won one. In many cases the higher prices necessary to hire U.S. citizens have been a major factor.

Kenya. While the embassy reported having received complaints regarding the taxation of foreign earned income and the Foreign Corrupt Practices Act, it did not consider either of these areas to be serious disincentives. Rather, it pointed out an apparent lack of interest in exporting to Kenya on the part of U.S companies, and weaker U.S. export promotion programs relative to those of other governments as more important problems.

Korea. The embassy cited several areas of disincentives. In nuclear controls, the problems of the reputation of the U.S. as a reliable supplier are important because the Korean Government views the supply reliability of enriched nuclear fuel as a vital element in its choice of suppliers of nuclear reactors. The U.S. requirement for environmental reviews for nuclear power stations is also viewed negatively in Korea. Regarding the Foreign Corrupt Practices Act, when there is a question concerning traditional Korean practices such as rebates and commissions, U.S. businessmen tend to err on the side of caution, which often effectively eliminates them from competition for certain contracts. Antitrust legislation is also seen as a problem, particularly in light of the Japanese trading companies and consortia which operate freely in Korea. The taxation of foreign earned income is also a matter of concern in Korea since U.S. firms are increasingly hiring third country nationals who, it is believed, are less committed to promoting the sale of U.S. equipment.

Kuwait. The taxation of foreign earned income and the antiboycott regulations were seen by the embassy as the most important disincentives. Export controls, particularly those relating to arms, and the Foreign Corrupt Practices Act were viewed as somewhat less important. The embassy noted that U.S. taxation of foreign earned income increases the cost of utilizing U.S. personnel and makes it difficult to compete; third country nationals are often employed instead. In addition, expatriate advisors working for the Kuwaiti Government often influence procurement decisions, to the extent that Americans cannot fill these positions there is a tendency for procurement to go to non-U.S. sources.

In commenting on antiboycott regulations, the embassy voiced particular concern on the prohibiting of U.S. exporters from furnishing information about business relationships with boycotted countries or blacklisted persons.

Lebanon. The embassy stated that potential disincentives to U.S. exports lie in the taxation of foreign earned income and antiboycott regulations. While relatively few U.S. businessmen remain in Lebanon owing to security conditions, they complain that U.S. tax law changes in recent years place an onerous reporting burden on individuals and companies, and reduce U.S. competitiveness by raising the cost of maintaining U.S. citizens in foreign countries. Antiboycott legislation has raised fewer complaints, but the cost of legal counsel to smaller firms may have prevented some of them from testing the Lebanese market.

Liberia. The embassy reported that taxation of foreign earned income and the Foreign Corrupt Practices Act are the disincentives most noticeable in Liberia. Apparently because of taxation problems, about two-thirds of the heads of American companies in Liberia are non-Americans. The embassy encouraged U.S. initiatives on export trading companies, noting that such companies can rid the U.S. of its dependence on others for the selection and promotion of U.S. goods.

Luxembourg. The embassy reported that disincentives to U.S. exports do not have an impact on shipments to Luxembourg.

Mexico. The embassy indicated that concern over the Foreign Corrupt Practices Act and inadequate Eximbank financing are the most frequently mentioned areas of disincentives to U.S. exports. In particular, the inability of Eximbank to meet the "loss leader" financing offered by some of the European competitors as well as the Japanese was mentioned, especially with respect to large projects. In addition, the embassy stated that its ability to support U.S. bidders on large projects was weakened by the antitrust inhibitions on selecting a "chosen instrument" to compete with foreign bidders who have no such restrictions.

Morocco. The embassy in Morocco did not report on U.S. export disincentives.

Netherlands. The embassy reported four major disincentives to U.S. exports. Taxation of foreign earned income is the most persistent complaint by U.S. businesses, who say it has become too expensive to keep U.S. nationals in the Netherlands; as a result, firms have hired foreign nationals. In turn, these foreign nationals look to non-U.S. sources of supply. Export controls on strategic goods to the Soviet Union are reported to have caused problems for U.S. firms. Unsuccessful bids on subcontracts under contracts won by third countries have resulted because of uncertainties as to whether U.S. firms could fulfill contract obligations. Antiboycott laws have reportedly affected U.S. subsidiary sales to Arab countries. The Foreign Corrupt Practices Act has raised business complaints that their sales in countries where special "fees" are a way of life have been curtailed.

New Zealand. The embassy reported that the primary disincentive involves delays in the granting of export licenses, which have hurt the reputations of some U.S. exporters. The length of the delays has at times been several months. Firms selling computers and related equipment were cited as particular examples.

Nigeria. The embassy reported that the Foreign Corrupt Practices Act is cited as the most significant disincentive to U.S. exports. Some sort of payment or bribe is said to be required universally at every step of a transaction. While U.S. companies have no problem with small payments, which are comparable to service charges or tips, the payments usually necessary to complete large transactions are precluded by U.S. law.

Taxation of foreign earned income has led to the practice of hiring third country nationals in order to reduce costs. These people are oriented toward their home countries and their recommendations are likely to lead to a shift from American to foreign sourced goods and services. However, there is growing pressure to replace foreign personnel with Nigerians, which could be more favorable to U.S. business, since Nigerians who replace expatriates often have been trained in the United States.

Export controls have prevented U.S. companies from taking the initiative in selling military equipment. Other competitors get a head start on U.S. firms, since the U.S. company must wait to be invited to bid, often at a very late stage in the contract.

Norway. The embassy listed differing U.S. technical standards, particularly with respect to offshore equipment, long delays in licensing of export control cases, and cargo preference requirements as the areas where Norwegian importers complained most about U.S. regulations.

Oman. The embassy stated that the taxation of foreign earned income and the Foreign Corrupt Practices Act are the major disincentives to U.S. exports. Antiboycott regulations are seen as a lesser, though still significant, disincentive. The Middle East travel advisory last winter may have deterred some American citizens considering employment in Oman.

The FCPA has created problems for some U.S. firms, because a limited number of educated Omanis has resulted in an overlap among government and business leaders. U.S. firms find they must often choose as their representative either an Omani firm which does not represent their competitors but is owned by a government official, or an Omani firm not owned by a government official but which represents a competitor. Clearing such representation to ensure FCPA compliance produces extensive delays. One local U.S. attorney reported a $20 million deal was lost because the Omani business/government official involved was exasperated and insulted by the U.S. firm's attempts to protect itself against FCPA problems.

Philippines. The embassy pointed out that taxation of foreign earned income is seen as making it increasingly costly and difficult to maintain U.S. offices with U.S. personnel, especially since other foreign firms do not face such costs. The Foreign Corrupt Practices Act was also mentioned; due to the uncertainties surrounding this law, many firms prefer to pass up business opportunities rather than risk possible legal problems. The embassy also reported comments made by the local American Chamber of Commerce which noted that U.S. domestic environmental laws, antitrust considerations and controls exerted for foreign policy reasons had created problems for U.S. exporters.

Qatar. The embassy stated that taxation of foreign earned income and the antiboycott regulations have formed physical and psychological barriers to the expansion of U.S. trade with Qatar. Stressing the importance of personal U.S. contacts, the post noted that the sale of U.S. products has been hampered by the tax provisions which have forced American firms to rely heavily on European experts. Additionally, substantial sales are also lost due to antiboycott policies; local firms sometimes prefer not to deal with U.S. firms, so as to avoid the delays and paperwork. Substantial trade opportunities were reportedly lost during the Middle East travel advisory last winter.

Saudi Arabia. The embassy cited the taxation of foreign earned income, antiboycott regulations, and the Foreign Corrupt Practices Act as the primary disincentives to U.S. exports. The taxation of foreign earned income has made U.S. firms increasingly uncompetitive and results in the hiring of third country personnel. Some of the largest and best established U.S. construction firms are shifting from the manpower intensive construction field towards service contracts, and even here more third country workers are being employed. Antiboycott regulations are seen as discouraging small and medium businesses that cannot afford legal counsel to provide case-by-case advice.

Singapore. The embassy referenced the policy papers prepared by the Asia Pacific Chamber of Commerce for the January 1980 Joint Economic Commission's East Asia Study Mission as highlighting the high priority problem areas. These include: taxation of foreign earned income, antitrust problems

connected with U.S. consortium bidding, uncertainties and costs of complying with the Foreign Corrupt Practices Act, and the problems involved in forming trading companies.

South Africa. One of two primary disincentives cited by the embassy is Export Administration Regulation 175, which prohibits the sale of any U.S. origin product or products containing U.S. components or technology to the South African police and military. U.S. firms feel that this regulation has created an atmosphere of distrust regarding the general reliability of U.S. suppliers.

Equally significant as an export disincentive is the Evans Amendment to the Export-Import Act, which prohibits the use of any Eximbank facilities by South African companies unless the U.S. Secretary of State certifies that the companies are meeting specified labor standards. The embassy noted that while the short-term impact appears to be very limited, it does seem to be posing difficulties for smaller U.S. exporters who do not have the resources or contacts to arrange alternative financing or cannot absorb the insurance risk themselves. In the medium to longer term, U.S. exporters may find themselves at a competitive disadvantage to Europeans in bidding on major capital projects.

Another disincentive mentioned by the embassy involves the taxation of foreign earned income. This has enforced the trend for U.S. firms to be headed in South Africa by non-Americans, who are seen as less committed to purchasing from the United States.

Spain. The embassy reported that the main area of concern is a view that the United States is an increasingly unreliable supplier. Two incidents, the soybean embargo and the passage of the Nuclear Nonproliferation Act, have caused this view. The latter is seen as being in conflict with previous U.S. obligations regarding nuclear supplies.

Switzerland. According to the embassy, U.S. export control regulations and procedures are often regarded as overly bureaucratic, extremely time-consuming, and painfully cumbersome by U.S. firms or agents of U.S. suppliers operating in Switzerland. Swiss OEM firms (manufacturers of original equipment depending on computer or electronic strategic goods as component parts for the systems they produce and export) are known to give preference to third country suppliers whenever possible.

The U.S. tax obligation of American citizen business representatives stationed in Switzerland is frequently cited as an important disincentive, impacting in several ways. First, it discourages the employment of American citizens by American firms because of the higher salary cost incurred in offsetting the employee's tax obligation. Second, as the number of Americans employed by firms of any nationality decreases, opportunities to influence sourcing and procurement decisions decrease by approximately the same magnitude.

Syria. The embassy reported that U.S. exporters view U.S. antiboycott regulations as a serious problem. The Foreign Corrupt Practices Act, and the uncertainties surrounding it, were also seen as limiting the flexibility of U.S. firms and restricting their ability to respond to even legitimate situations.

Turkey. The embassy stated that the main U.S. disincentives are those related to national security controls and the Foreign Corrupt Practices Act. The Turkish Government, the main importer, is said to overreact to prosecutions under the Act by assuming guilt on all those associated with the firm in question. In these instances the Turkish Government has refused to deal with the representatives even if they have not been implicated or are representing another firm.

United Arab Emirates. According to the embassy, taxation of foreign earned income has had the greatest negative effect on U.S. exports. U.S. exporters can be disadvantaged by tax laws in two ways. By hiring a British engineer, for example, a firm can be more price-competitive but, to the extent the engineer uses British standards and equipment, potential U.S. equipment suppliers lose export opportunities. If, instead, a U.S. firm employs Americans, costs rise, and the firm is no longer able to compete in price against foreign bidders.

Uncertainty about the FCPA also poses significant problems. Foreign firms operating in Abu Dhabi are required by law to work with a local agent or sponsor, the most capable of which often have government responsibilities. Of all nationalities doing business, only U.S. firms must face the risk that seeking the best representation in a highly competitive market might bring them into conflict with U.S. law. The embassy is aware of instances where U.S. firms felt themselves unable to work with a competent, well-educated, and highly respected local businessman because he also served in the Abu Dhabi Government.

United Kingdom. The embassy reported that there is little evidence that U.S. exports have been significantly hurt by export disincentives. Some dissatisfaction over export licensing delays, however, is reported by business. Since these delays are generally related to high technology goods not easily substituted from other sources, the impact was seen by the post as minor. Further, while U.S. businessmen complain about the taxation of foreign earned income, the embassy had no evidence that U.S. exports have been adversely affected.

Venezuela. The embassy noted three primary disincentives to U.S. exports to Venezuela: taxation of foreign earned income, the official U.S. position on investment, and the Foreign Corrupt Practices Act. Taxation of foreign earned income was cited as the most important of these. U.S. investment policies were noted as disincentives in instances where there is a direct link between investment in a project or industry and exports. In contrast to U.S. policies, the Japanese and Europeans actively encourage investment in those sectors of the Venezuelan economy which have substantial export requirements, particularly since the investor is often a Japanese or European state-owned enterprise. In reference to the Foreign Corrupt Practices Act, it was pointed out that local U.S. businesses feel that they have to play by a completely different set of rules than do other competitors.

EXPORT PROMOTION ACTIVITIES IN OTHER COUNTRIES

The export promotion activities of competitor nations have been studied intensively over the years. The most recent study was prepared in 1978 for the House Committee on International Relations by the Congressional Research Service. Based principally on material supplied by the Department of Commerce, the study compared U.S. export promotion relative to its eight major competitors. For purposes of the present review, U.S. embassies were asked to focus on new developments in other nations' programs. In general, the posts' comments did not reveal major changes in the nature or scope of export promotion programs.

Twenty-nine embassies reported on export promotion programs or specific financial incentives sponsored by other countries. These "own country" export promotion activities varied substantially among countries, from simply providing tax rebates or government export credits, to broad based networks of public-private support, including long-term export planning and targeting, trade shows, trade missions, and "commercial prospectors" in foreign countries.

Two-thirds of the embassies reporting own country promotion activities were in developed countries. Most developing nations do not have their own export promotion programs. However, ten posts in less developed countries reported that their countries had some form of promotional activity -- again ranging from tax rebates to trade fairs and market studies. Export promotion in some LDCs, like Bangladesh, was reported to be quite active, while in others, like Ghana, it was termed sporadic.

Fifteen embassies, whose countries do not have their own export promotion programs, reported instead on third country export promotion activities in their countries. Most of these comments were made in the context of actual or implied comparisons with U.S. promotion activities in the country. In virtually every case, the third country (e.g., Japan, West Germany, United Kingdom, France) was seen to have advantages over the United States. Some third country competitors offer better or more flexible export financing, others have more of their nationals in the host country to promote exports, and still others have sought special government-to-government commercial agreements which provide a framework for export transactions.

Among the major industrial nations, there remains a great deal of diversity regarding the size and vigor of their official export promotion activities. Some countries, such as Switzerland and West Germany, continue to have rather small government programs, which rely mainly on their Chambers of Commerce and the private sector to promote foreign interest in export goods. Since the support is indirect, it may be understated, particularly in the case of West Germany. Other countries, including Japan, France, the United Kingdom and Italy, have large active government export promotion programs. One trend discerned by the overseas posts among the major industrialized nations is a new policy toward cost recovery in government export promotion programs. Governments have raised the fees charged to exporters who participate in these programs to recover the cost of providing this assistance. While subsidies are still granted to exporters, these subsidies are limited to specific targeted cases. This new policy toward cost recovery is similar to initiatives recently taken by the U.S. Department of Commerce.

Individual Embassy Comments

This section summarizes embassy comments on the promotion activities of some of the major industrialized exporting nations.

Canada. The Canadian Government continues to focus its export activities on helping businessmen develop new markets. The Program for Export Market Development (PEMD) finances business trips abroad for the purpose of bidding for foreign clients. If successful, recipient companies repay the Government. PEMD also provides incentives for small and medium-sized firms to form export consortia. In FY 1978-79, PEMD assisted some 1300 companies through loans or contributions. The Government also has given special emphasis on foreign capital projects in developing countries.

Until now, Canada has not targeted geographic areas or commodities; however, the Department of Industry, Trade and Commerce has begun a pilot program under which missions are targeted to the 10 most promising markets in their jurisdiction.

Federal Republic of Germany. The embassy reported that West Germany's export promotion program has not changed over the past few years; it remains highly effective. Among the West German programs is one that encourages private firms to invest in developing countries. The program entitles companies to build up their free reserves to 15 percent of their total capital investment if they invest more than 25 percent equity in a developing country.

The services of German exporters are free of cost to project authorities for technical assistance and advice. For India, loans are available to private and public Indian enterprises and financial lending institutions for direct imports and investment purposes.

Italy. The Italian Government has a vigorous export promotion program administered by ICE, the Italian Foreign Trade Institute. The ICE structure has recently been completely reorganized, from its original country program lines to new product/industry lines. As added support, a sophisticated on-line computer system (similar to WITS) has been included to handle trade data. In addition to an active event program, the ICE activity is also supported by an extensive system of export credits and insurance.

Japan. Japan's export promotion activities include a reserve in the form of a tax deferral over a five-year period for market development for small- and medium-sized firms. It also provides low interest development loans to promote technological development and knowledge intensive industries. In addition, it provides special tax incentives for targeted sectors, R & D subsidies, and market guarantee programs. The embassy believes, however, that this assistance has only a moderate effect on Japan's export performance, because major exporters do not benefit from the programs.

Switzerland. The Swiss Office for the Development of Trade is responsible for official export promotion programs. While this office has a modest budget, its services are highly effective. Official export promotion programs are operated under a cost recovery concept and fees are charged for these services. Swiss exporters can also rely on the excellent support of Switzerland's highly developed service sector.

United Kingdom. The embassy reported that U.K. export promotion efforts are highly professional and receive support from industry. Moreover, the trade development agencies in the U.K. are less encumbered than those in the United States by laws and regulations that tend to inhibit firms in competing for overseas contracts. The level of funding is far in excess of U.S. export promotion programs and the Embassy believes that this is reflected in a higher degree of personal service given to exporters. However, the British Government's recently announced austerity budget has cut funds destined to support export promotion. Examples of the budget reductions are a staff cut of 100 (10%), a 50 percent cut in trade missions, and an increase in charges to recover 50 percent of direct costs.

British exporters enjoy certain exporting advantages in India, Qatar and the United Arab Emirates because of their historical links with these countries. In Nigeria, where the U.K. has the largest competitor market share, the U.K. Government promotes exports particularly by encouraging British nationals to serve and remain abroad for long periods.

APPENDIX D. SUMMARY OF PRIVATE SECTOR COMMENTS AND SUGGESTIONS

The President directed the Secretary of Commerce and the U.S. Trade Representative to consult with business and labor on export promotion and on potential programmatic and regulatory disincentives to exports. Extensive private sector comments from exporters, trade associations, labor unions, export intermediaries and others were sought in order to obtain a complete view of promotion programs and potential disincentives to exports from the perspective of the companies and persons affected by them. Private sector comments were obtained principally through responses to a Federal Register notice and through special in-depth conferences.

FEDERAL REGISTER NOTICE RESPONSES

A request for information published in the Federal Register on April 29, 1980, sought comments on both promotion programs and potential disincentives. The notice stressed that all information submitted would become part of the public record and that no "business confidential" information would be accepted. The Federal Register notice was widely publicized to trade associations, trade publications, and the industry and labor MTN advisory committees.

A total of 248 responses to the Federal Register notice were received. Some were as short as a single page, while others were more than 100 pages. The average response was three to four pages. About 30 percent of the responses were from associations, including business and labor unions as well as state economic and export councils. A sample of the responding associations includes the National Grange, U.S. Chamber of Commerce, Emergency Committee for American Trade, National Association of Manufacturers, AFL-CIO, American League for Exports and Security Assistance, National Foreign Trade Council, National Farmer's Union, Montana Department of Community Affairs, State of New York Department of Commerce, State of Florida Department of Citrus, Aerospace Industries Association, and Pharmaceutical Manufacturers Association. Most of the remaining responses came from individual businesses. The firms responding represented a wide range of economic activities including construction, heavy equipment, iron and steel, textiles and clothing, fruit and vegetables, foods, chemicals, pharmaceuticals, banks, home appliances, rubber, health care, aircraft, farm machinery, computers, and retailers. Responses were received from small and medium-sized companies as well as from large companies.

Most respondents limited their remarks to citations of policies and regulations which they believed hindered export expansion. Other responses cited more specific case examples that illustrated the perceived effect of these policies. Some respondents recommended specific steps to ameliorate the adverse effects on exports. Most of the responses contained comments on more than one area of export promotion or disincentives.

The largest number of responses received discussed export promotion and export financing. Approximately half of the respondents mentioned some type of export promotion program; nearly 30 percent included remarks on financing. Taxation of Americans abroad was the most frequently listed export disincentive. Figure 1 depicts the distribution of responses on particular topics.

Export Financing and Promotion Responses

The respondents raised a number of issues pertaining to export promotion. The overwhelming majority of respondents supported the concept of federal assistance to exporters and existing Federal export promotion programs. For the most part, they focused on ways in which Federal assistance to exporters could be strengthened. In the following discussion, issues are ordered according to their frequency of mention in the responses.

Export-Import Bank financing received the most attention. While most respondents supported existing Eximbank programs, many called for increased financing authorization and more competitive financing. Some respondents suggested broader insurance coverage in "high risk" areas. Others called for increased financial assistance for shorter terms at rates specifically suited to the needs of various industries (such as textiles). Some small and medium-sized firms were critical of Eximbank programs, stating that these programs did not address their needs. One recommendation called for the Eximbank to make available discount loan rates comparable to its direct loan rate. Another recommendation called for the United States to use "mixed credits" to meet foreign competition.

Among promotion and incentives, tax deferrals afforded by the Domestic International Sales Corporation (DISC) were mentioned often. Respondents viewed the DISC program as useful and believed it should be strengthened. One firm wrote that DISC was particularly helpful to the new-to-export firm in meeting start-up costs. Another respondent thought the DISC program encouraged small and medium-sized firms to export actively. However, another respondent suggested that confusion surrounding the DISC program had reduced its usefulness, and that paperwork requirements had damaged much of its effectiveness.

The reaction to Commerce's staff assistance from the field offices and from overseas posts was mixed. A number of respondents warmly praised Commerce's counseling, informational and programming services. One industry association stated that participation in Commerce's export promotion programs has been the major reason for the dramatic increase in exports of its industry's products in the past two years. Other respondents wrote of less satisfying experiences. These comments centered on insufficient staff knowledge about business, poor communication between the field offices, overseas posts and Washington headquarters, and slow staff responses to requests for information.

Comments about Federal assistance to small and medium-sized firms were also received. Respondents urged tailoring Federal assistance programs to small and medium-sized firms that lack the resources to export without some Federal aid, particularly in the start-up phase. Several recommendations were made to improve Federal informational, financial and counseling assistance to small- and medium-sized firms.

FIGURE 1. Distribution of Federal Register Notice Responses by Topic

Topic	Percentage of Responses on the Topic (1% 10% 20% 30% 40% 50%)
Export Promotion	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Financing	xxxxxxxxxxxxxxxxxxxxxxxx
Taxation	xxxxxxxxxxxxxxxxxxxxx
Foreign Corrupt Practices	xxxxxxxxxxxxxx
Foreign Policy Controls	xxxxxxxxxxxxx
Antiboycott Regulations	xxxxxxxxxx
Antitrust/Webb-Pomerene, Trading Companies	xxxxxxxxx
Environmental Regulations	xxxxxx
Misc. Legislation Affecting Exports	xxxxx
Nat'l. Security Controls	xxxxx
Arms Export Controls	xxxx
Hazardous Substances	xxx
Nuclear Controls	xxx
Ocean Freight Rates	xx
Short Supply Controls	xx
Cargo Preference	x

The complexity of the Federal Government was the subject of some comments. Among the complaints were conflicting and onerous Federal regulations, paperwork overload, and jurisdictional conflicts among and within agencies. One respondent suggested that the succession of name changes for agencies involved in exporting programs has made obtaining Federal assistance more difficult.

Trade shows received the most attention among the various Commerce programs. Most of the respondents viewed the program as an excellent vehicle for initial market research and overseas exposure. Criticism of the program was comparatively small, ranging from assertions that the benefits of the program were not worth the cost of participation, to arguments that the Government was competing with the private sector in sponsoring trade shows and exhibitions.

Finally, establishment of export trading companies was supported by all respondents who discussed it. Respondents stated that the small firm is at a disadvantage when competing with foreign trading companies, many of which have the tacit support of their governments. Respondents believed trading companies would boost their exports by providing them with a variety of export expertise and services. Some respondents stated foreign customers would see a definite advantage in dealing with U.S. trading companies because more of the buyer's needs would be met by the members of a single business entity.

Disincentive Responses

The export disincentive receiving the most comment was the taxation of Americans abroad (Sections 911 and 913 of the Tax Code). One-fourth of all respondents cited these rules as being an export disincentive, and most of these responses indicated the issue to be the principal disincentive in their view. Some of the responses on this issue were more than 100 pages, including attachments and case information submitted. Many respondents provided case information indicating that the tax regulations had increased the cost of employing Americans abroad so significantly relative to foreign nationals that they were sending their American employees home and were replacing them with foreign nationals. Construction companies and associations were particularly vocal on the tax rules, providing a considerable amount of case information showing the rules had increased their costs and made them less competitive.

The Foreign Corrupt Practices Act (FCPA) was the next most frequently mentioned disincentive to U.S. exports. About 15 percent of the respondents termed it a deterrent to exports. Most of the comments concerned perceived ambiguities in the FCPA. Respondents provided examples of the uncertainties that they believed were created by the Act. Some commented on the costs and time required in checking transactions or agents to ensure there was no chance of running afoul of the law.

Numerous responses mentioned export controls, including national security, foreign policy, arms, nuclear, and hazardous substances controls. Respondents were most concerned about the use of controls when the goods

being controlled were available from other supplier countries. A frequent view was that the United States should not control exports in cases where there was foreign availability. Some respondents thought that controls created an impression that U.S. companies were unreliable suppliers. Many respondents indicated they were affected by lengthy licensing procedures and by attendant delays and uncertainties. Respondents also complained about paperwork burdens and the cost of complying with licensing procedures. Some respondents questioned whether all the requirements were really necessary.

Other potential disincentives to exports mentioned frequently included antiboycott regulations -- particularly the existence of separate regulatory programs in Commerce and Treasury -- and what respondents viewed as insufficient protection from antitrust laws in forming consortia to export overseas. Weaknesses in the Webb-Pomerene statute were mentioned by several respondents. Domestic regulations affecting the cost of exports were mentioned by some respondents, but exporter concerns in this area were considerably less than in the other areas of export disincentives. Environmental laws and regulations received attention by several respondents as raising their costs and reducing their competitiveness. Some companies pointed out difficulties they were having in complying with export procedures mandated by environmental and safety regulations.

CONFERENCES

In-depth conferences with private sector representatives were held on the following areas: export controls, code of conduct (FCPA and antiboycott regulations), taxation, export financing, and export promotion. A separate conference was held with AFL-CIO representatives and covered all disincentive and promotion issues of interest to labor. These conferences provided specific information which was unavailable from other sources and helped clarify some issues. Suggestions for alleviating some particular problems were also discussed.

Export Controls Conference

The conference on export controls centered on discussions of foreign policy and national security controls. Participants' concerns in these areas fell into five general categories:

1. Participants believed that other policy goals often override foreign availability considerations.

2. Participants believed that the current system introduces needless delays and an excessive amount of uncertainty into the exporting process.

3. U.S. controls were seen as overly restrictive compared to those imposed by U.S. allies.

4. Unilateral controls were thought to deprive exporters of sales which ultimately go to competitors.

5. Finally, participants believed that economic sanctions have helped to create an image of the United States as an unreliable supplier.

Private sector recommendations for change included stricter enforcement of the Export Administration Act's limitations on the use of foreign policy export controls, removing all license requirements to COCOM countries, and allowing concurrent procurement of import certificates and export licenses.

Code of Conduct Conference

The conference considered the impact of the Foreign Corrupt Practices Act (FCPA) and antiboycott regulations on U.S. exports, and produced a significant amount of anecdotal information regarding the FCPA.

The participants unanimously agreed that the ambiguity they saw in many of the FCPA's provisions has serious adverse effects on U.S. exports. A spokesman for small business stated such firms are particularly hard hit by the uncertainties of the FCPA because the cost of ensuring they have complied with the Act is so large relative to the value of the transactions. Various participants commented on the chilling effect the Act has on their international business. Some reported instances where U.S. firms have stopped doing business altogether in particular countries because of the costs and uncertainties associated with the FCPA.

The participants generally believed that the new Justice FCPA Review Procedure would not be very useful because of the necessity of making quick decisions, the reluctance of many foreigners to undergo a time-consuming evaluation, and the fear of the release of "business confidential" information. Several suggestions were made to clarify the Act by either issuing guidelines or making legislative changes. There was general agreement that the illicit payments problem should be approached multilaterally. The participants saw no need for dual SEC and Justice jurisdiction and believed that enforcement responsibility should be placed exclusively in the Justice Department.

The discussion of antiboycott regulations suggested that a workable balance had been developed, with relatively little uncertainty. Suggestions were made to either harmonize the Commerce and Treasury regulations or to eliminate the Treasury program. Participants complained about provisions which prohibit a firm from objecting to false charges which place it on a blacklist. Some participants viewed the present reporting requirements as excessive and costly.

Taxation Conference

The Taxation Conference focused on three major issues -- taxation of Americans abroad (Section 911/913), foreign tax credits, and the DISC. On 911/913, participants unanimously asserted that it seriously affected

exports, citing higher costs of doing business abroad and claiming loss of sales due to foreign nationals specifying own country products in projects. The participants agreed that complete exemption of foreign earned income would not be the solution. Remedies suggested included a return to the pre-1976 law or a higher ceiling on limitations coupled with residency requirements.

The group also suggested the need for better and more certain foreign tax credit regulations, observing that Treasury has been slow in issuing regulations in the area. On the issue of DISC, participants noted the complexity of complying with DISC regulations, the uncertainty of its retention, and difficulties in its use by small and medium-sized companies.

Export Financing Conference

The Export Financing Conference discussed ways of improving export financing, especially Export-Import Bank financing, given the tight budgetary constraints. It was generally agreed that in the short term the only available alternative to the Export-Import Bank was to borrow from the Federal Financing Bank. Conference participants generally felt that for the longer run, consideration should be given to increasing the Export-Import Bank's loan authority and to making more medium term loans. The suggestion was made to move the Export-Import Bank "off-budget" or to a different part of the budget. There was a consensus that the international agreement on export credits scheduled for negotiation by December 1, 1980, was needed.

Labor Conference

Unlike the other conferences, the labor conference was not confined to a single issue. The entire range of promotion and disincentive questions was covered. In general, labor representatives indicated opposition to changing most of the present U.S. laws and regulations affecting exporting. For example, on the taxation of foreign earned income, the view was expressed that the 1978 changes in the laws were sufficient, and that any further broadening of the exemption would be unfair to American workers employed in the United States. The Foreign Corrupt Practices Act was seen as embodying the correct policy for U.S. firms to follow, but it was noted that labor would not object to elaboration or clarification of the law so long as loopholes for bribery were not created. Labor also supported present export controls, stating that, if anything, U.S. controls have been too lenient, not too harsh. Additionally, labor expressed the strong view that environmental and safety regulations should not be viewed as export disincentives. Concern was expressed that exporting needs could be used as an excuse to water down regulations protecting health, safety, and the environment.

Export Promotion Conference

Major concerns expressed at the conference included the technical problems faced by small exporters, the perception of an insufficient number of incentives (financial and otherwise) to exporting, the need for support for

export management companies, the use of banks as entrepreneurs in the proposed Export Trading Company legislation, and of the effect of trade barriers in other countries. Suggestions for improving export promotion efforts were wide ranging. Some participants called for changes or increases in trade missions and trade shows, such as holding industry-sponsored shows in host countries, increasing advertising on the availability of trade centers for individual shows, and using more Commerce officials in the shows. Other suggestions were directed at identification and targeting of export markets, improving trade leads (both fresher and more long-term leads), using the WITS data base to expedite trade leads, and increasing the use of export management companies.

APPENDIX E. CONVENTIONAL ARMS TRANSFER POLICY STATEMENT

Presidential Directive 13, 13 May 1977

The virtually unrestrained spread of conventional weaponry threatens stability in every region of the world. Total arms sales in recent years have risen to over $20 billion, and the United States accounts for more than one-half of this amount. Each year, the weapons transferred are not only more numerous, but also more sophisticated and deadly. Because of the threat to world peace embodied in this spiralling arms traffic, and because of the special responsibilities we bear as the largest arms seller, I believe that the United States must take steps to restrain its arms transfers.

Therefore, shortly after my Inauguration, I directed a comprehensive review of U.S. conventional arms transfer policy, including all military, political, and economic factors. After reviewing the results of this study, and discussing those results with members of Congress and foreign leaders, I have concluded that the United States will henceforth view arms transfers as an exceptional foreign policy implement, to be used only in instances where it can be clearly demonstrated that the transfer contributes to our national security interests. We will continue to utilize arms transfers to promote our security and the security of our close friends. But, in the future, the burden of persuasion will be on those who favor a particular arms sale, rather than those who oppose it.

To implement a policy of arms restraint, I am establishing the following set of controls, applicable to all transfers except those to countries with which we have major defense treaties (NATO, Japan, Australia, and New Zealand). We will remain faithful to our treaty obligations, and will honor our historic responsibilities to assure the security of the state of Israel. These controls will be binding unless extraordinary circumstances necessitate a Presidential exception, or where I determine that countries friendly to the United States must depend on advanced weaponry to offset quantitative and other disadvantages in order to maintain a regional balance.

1. The dollar volume (in constant FY 1976 dollars) of new commitments under the Foreign Military Sales and Military Assistance Programs for weapons and weapons-related items in FY 1978 will be reduced from the FY 1977 total. Transfers which can clearly be classified as services are not covered, nor are commercial sales, which the U.S. Government monitors through the issuance of export licenses. Commercial sales are already significantly restrained by existing legislation and Executive Branch policy.

2. The United States will not be the first supplier to introduce into a region newly-developed, advanced weapons systems which could create a new or significantly higher combat capability. Also, any commitment for sale or coproduction of such weapons is prohibited until they are operationally deployed with U.S. forces, thus removing the incentive to promote foreign sales in an effort to lower unit costs for Defense Department procurement.

3. Development or significant modification of advanced weapons systems solely for export will not be permitted.

4. Coproduction agreements for significant weapons, equipment and major components (beyond assembly of subcomponents and the fabrication of high-turnover spare parts) are prohibited. A limited class of items will be considered for coproduction arrangements, but with restrictions on third-country exports, since these arrangements are intended primarily for the coproducer's requirements.

5. In addition to existing requirements of the law, the United States, as a condition of sale for certain weapons, equipment, or major components, may stipulate that we will not entertain any requests for retransfers. By establishing at the outset that the United States will not entertain such requests, we can avoid unnecessary bilateral friction caused by later denials.

6. An amendment to the International Traffic in Arms Regulations will be issued, requiring policy level authorization by the Department of State for actions by agents of the United States or private manufacturers which might promote the sale of arms abroad. In addition, embassies and military representatives abroad will not promote the sale of arms and the Secretary of Defense will continue his review of government procedures, particularly procurement regulations, which may provide incentives for foreign sales.

In formulating security assistance programs consistent with these controls, we will continue our efforts to promote and advance respect for human rights in recipient countries. Also, we will assess the economic impact of arms transfers to those less-developed countries receiving U.S. economic assistance.

I am initiating this policy of restraint in the full understanding that actual reductions in the worldwide traffic in arms will require multilateral cooperation. Because we dominate the world market to such a degree, I believe that the United States can, and should, take the first step. However, in the immediate future, the United States will meet with other arms suppliers, including the Soviet Union, to begin discussions of possible measures for multilateral action. In addition, we will do whatever we can to encourage regional agreements among purchasers to limit arms imports.

APPENDIX F SUMMARY OF STATUTORY CONTROLS ON EXPORTS OF HAZARDOUS SUBSTANCES

This appendix summarizes the statutory authority for controls on exports of hazardous substances. All materials are presented in two tables:

Table 1. Statutes Affecting the Export of Hazardous Products

Table 2. Regulatory Authority to Control Exports of Hazardous Substances

TABLE 1. STATUTES AFFECTING THE EXPORT OF HAZARDOUS PRODUCTS

Act	Product Class	Agency*
Consumer Product Safety Act	Consumer Products	Consumer Product Safety Commission
Federal Hazardous Substances Act	Chemical Substances (toxic, corrosive, flammable or explosive products) Toys (articles intended for use by children)	Consumer Product Safety Commission
Flammable Fabrics Act	Fabrics	Consumer Product Safety Commission
Federal Insecticide, Fungicide and Rodenticide Act	Pesticides	Environmental Protection Agency
Toxic Substances Control Act	Chemical Substances	Environmental Protection Agency
Public Health Service Act	Biologics Electronic Products	Food and Drug Administration
Federal Food, Drug and Cosmetic Act	Food Drugs (approved and unapproved, investigational and non-investigational) Cosmetics Medical Devices	Food and Drug Administration
Federal Meat Inspection Act	Meat and Meat Products	Food Safety and Quality Service, Department of Agriculture

* The Customs Service of the Treasury Department assists some of these agencies in enforcement.

table continued

Table 1. Statutes (continued)

Act	Product Class	Agency*
Poultry Products Inspection Act	Poultry and Poultry Products	Food Safety and Quality Service, Department of Agriculture
Export Administration Act	General Materials and Information	Department of Commerce
Export-Import Bank Act	General	Export-Import Bank
Foreign Assistance Act	General	Overseas Private Investment Corp. Agency for International Development
National Environmental Protection Act	General	Council on Environmental Quality

* The Customs Service of the Treasury Department assists some of these agencies in enforcement.

TABLE 2. REGULATORY AUTHORITY TO CONTROL EXPORTS OF HAZARDOUS SUBSTANCES*

CONSUMER PRODUCT SAFETY COMMISSION

Consumer Product Safety Act	15 USC 2051
Products	Consumer products--articles used in and around the residence, school, or in recreation for the personal use, consumption, or enjoyment of a consumer, except tobacco, motor vehicles, pesticides, boats, ammunition, aircraft, foods, drugs, cosmetics, or medical devices. 15 USC 2052(a)(1)
Regulatory Authority For Domestic Use	CPSC can (1) set mandatory Federal standards for products which pose an unreasonable risk of injury, (2) ban products which pose such risk if no standard can adequately protect the public, (3) seek a court order to seize products which contain an imminent hazard, (4) order pre-market notice of new products, (5) mandate labeling and data disclosure requirements, and (6) order public notice and recall of products presenting substantial product hazards.. 15 USC 2056-2058; 2061-2064; 2076(e)
Regulatory Authority For Exports	Any product can be exported (except to U.S. installations outside the U.S.) if it (1) is manufactured or sold for export purposes and has never been distributed in the U.S., and (2) is labeled for export. Before exporting any product which does not comply with a product safety standard or is banned by rule, the exporter must notify the CPSC 30 days (or less if CPSC approves) prior to export. CPSC notifies the foreign country of the exportation and the basis of the standard or rule. CPSC also files a statement in the Federal Register. If the CPSC determines that exportation of a product presents an unreasonable risk of injury to U.S. consumers, it may prohibit exports of that product. 15 USC 2067

* Based on Appendix A of "Hazardous Substances Export Policy: A Fifth Draft Paper of the Ad Hoc Working Group," prepared by the Office of the Consumer Adviser to the President.

table continued

Table 2. Regulatory Authority (continued)

CONSUMER PRODUCT SAFETY COMMISSION
(continued)

Federal Hazardous Substances Act	15 USC 1261
Products	Substances which are (1) toxic, corrosive, irritants, strong sensitizers, flammable, combustible, or which generate pressure and which may cause substantial personal injury or illness, and (2) toys. 15 USC 1261
Regulatory Authority For Domestic Use	CPSC may ban hazardous substances, require labeling, and seek a court order to seize noncomplying products, or enjoin their distribution. 15 USC 1262; 1265; 1267
Regulatory Authority For Exports	Any product not previously introduced into domestic commerce can be exported if it is (1) in a package branded in accordance with the specifications of the foreign purchaser, (2) labeled in accordance with the laws of the foreign country, (3) labeled on the shipping package as intended for export, and (4) so exported. Before exporting any substance which is misbranded or banned, the exporter must notify the CPSC 30 days (or less if CPSC approves) prior to export. CPSC notifies the foreign country of such exportation and the basis upon which the substance is considered misbranded or has been banned. CPSC also files a notice in the Federal Register. If CPSC determines that exportation of such substances presents an unreasonable risk of injury to persons in the U.S., it may prohibit export. 15 USC 1264(b); 1265(a); 1273(d)

Table 2. Regulatory Authority (continued)

CONSUMER PRODUCT SAFETY COMMISSION
(continued)

Flammable Fabrics Act	15 USC 1191
Products	Wearing apparel, fabric, interior furnishings, or r lated materials. 15 USC 1191
Regulatory Authority For Domestic Use	CPSC can set standards, issue cease and desist orders, and seek court order to seize noncomplying products. 15 USC 1193; 1195
Regulatory Authority For Exports	Any product can be exported (except to U.S. installations outside the U.S.) if it is labeled for export. 15 USC 1202 CPSC interprets this provision so as to require the manufacturers of noncomplying goods to have the intention to export the goods at the time of original manufacture. 16 CFR 1602.2 Before exporting any product which does not comply with a standard, the exporter must notify the CPSC 30 days (or less if CPSC approves) prior to export. CPSC notifies the foreign country of exportation and the basis for the standard. CPSC also files a statement in the Federal Register. If CPSC determines that exportation of a product presents an unreasonable risk of injury to persons in the U.S., it may prohibit export. 15 USC 1202

Table 2. Regulatory Authority (continued)

DEPARTMENT OF COMMERCE

Export Administration Act of 1979	50 USC App 2104*
Products	Articles, materials, or supplies, including technical data or any other information.
Regulatory Authority For Domestic Use	None.
Regulatory Authority For Exports	Department of Commerce, in consultation with the Secretary of State and appropriate Federal agencies, can limit exports to the extent necessary (1) to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact from foreign demand (agricultural commodities included with the approval of the Secretary of Agriculture); (2) to further significantly the foreign policy of the U.S. and to fulfill its international responsibilities; and (3) to exercise the necessary vigilance over exports from the standpoint of their significance to the national security of the U. S.

* Section 6 of the Act, to be codified in 50 USC App 2104.

Table 2. Regulatory Authority (continued)

ENVIRONMENTAL PROTECTION AGENCY

Federal Insecticide, Fungicide, and Rodenticide Act 7 USC 136	
Products	Substances or mixtures of substances intended for preventing, destroying, repelling, or mitigating any pest, or for use as a plant regulator, defoliant or desiccant. 7 USC 136
Regulatory Authority For Domestic Use	Registration of pesticides for specified uses upon a finding by EPA of no "unreasonable adverse effect on the environment"; EPA registration of pesticide producers; EPA can issue "stop sale, use, or removal" orders and seek court orders for seizure of non-complying pesticides. 7 USC 136a; 136e; 176k
Regulatory Authority For Export	Pesticides are subject only to certain labeling regulations when intended solely for export and prepared or packed according to specifications or directions of the foreign purchaser. Pesticides not registered in the U.S. can be exported if, prior to export, foreign purchaser signs a statement acknowledging that he understands that the pesticide cannot be sold in the U.S. A copy of the statement is transmitted to the appropriate official of the foreign government. EPA notifies State Department whenever a registration is cancelled or suspended. State Department notifies foreign governments and appropriate international agencies. EPA, the State Department and other appropriate agencies are to participate and cooperate in international efforts to develop improved pesticide research and regulation. 7 USC 136o

Table 2. Regulatory Authority (continued)

ENVIRONMENTAL PROTECTION AGENCY
(continued)

Toxic Substances Control Act	15 USC 2601
Products	Chemical substances or mixtures except pesticides, tobacco, nuclear materials, firearms, etc. 15 USC 2602
Regulatory Authority For Domestic Use	EPA may require testing, impose pre-market notice requirements, require labeling, limit or prohibit sale if tests show a reasonable basis to conclude an unreasonable risk of injury to health or the environment exists, or obtain a court order to seize a substance or mixture posing an imminent hazard. 15 USC 2603-2606
Regulatory Authority For Exports	Statute does not apply if substance, mixture or article is manufactured for export and is labeled as such except as follows: (1) if EPA finds that the substance, mixture or article will present "an unreasonable risk of injury to health within the U.S. or to the environment of the U.S.", it may control export (Administrator may order testing to make such a determination); (2) if a person intends to export a substance which has been subject to certain regulatory actions, such person shall notify EPA and EPA shall furnish foreign government notice of the rule, order, action, or relief. 15 USC 2611

Table 2. Regulatory Authority (continued)

FOOD AND DRUG ADMINISTRATION

Public Health Service Act		42 USC 262
Products	Biological products.	42 USC 262(a)
Regulatory Authority For Domestic Use	HEW Secretary licenses establishments which propagate or manufacture and prepare biological products.	42 USC 262(a)
Regulatory Authority For Exports	No exportation of products which cannot be sold in U.S.	42 USC 262(a)

Public Health Service Act		42 USC 263b
Products	Electronic products.	42 USC 263c(2)
Regulatory Authority For Domestic Use	Secretary of HEW may establish performance standards to control emission of electronic product radiation and require notification for defects or non-compliance.	42 USC 263f(a);263g
Regulatory Authority For Exports	A product for export need not conform to standards if it (1) is labeled for export, and (2) meets all applicable requirements of the foreign country.	42 USC 263f(a)(3)

Table 2. Regulatory Authority (continued)

FOOD AND DRUG ADMINISTRATION
(continued)

Federal Food, Drug and Cosmetic Act	21 USC 321
Products	Cosmetics. 21 USC 321(i)
Regulatory Authority For Domestic Use	Secretary may establish standards on adulteration and misbranding. 21 USC 361-362
Regulatory Authority For Exports	May be exported (no permit required) if it (1) accords to specifications of foreign purchasers, (2) is not in conflict with laws of foreign country, (3) is labeled for export, and (4) is not offered for domestic sale. 21 USC 381(d)

Federal Food, Drug and Cosmetic Act	21 USC 321
Products	New drugs, and new animal drugs. 21 USC 321(p); 321(w)
Regulatory Authority For Domestic Use	No introduction of new drugs or new animal drugs in interstate commerce is permitted without approval by FDA ("interstate commerce" is defined to be commerce between any State or territory and any place outside thereof). 21 USC 355(a); 360b(a)
Regulatory Authority For Exports	No exportation is permitted unless the new drug is in complete compliance with an approved new drug application. Exportation for investigational use only is authorized if FDA receives, through the State Department, a formal request from the foreign government. The request must specify that such government has adequate information about the drug and the proposed investigational use. 21 CFR 312.1; 511.1

Table 2. Regulatory Authority (continued)

FOOD AND DRUG ADMINISTRATION
(continued)

Federal Food, Drug and Cosmetic Act	21 USC 321
Products	Drugs approved for U.S. use.
Regulatory Authority For Domestic Use	Drug must previously have been approved by FDA.
Regulatory Authority For Exports	A drug which may be sold in interstate commerce may be exported without special requirements. A drug which is misbranded or adulterated may be exported (no permit required) if it (1) accords to specifications of foreign purchaser, (2) is not in conflict with laws of foreign country, (3) is labeled for export, and (4) is not offered for domestic sale. This provision also applies to antibiotics, insulin, and pre-1938 drugs. 21 USC 381(d)

Federal Food, Drug and Cosmetic Act	21 USC 321
Products	Foods. 21 USC 321(f)
Regulatory Authority for Domestic Use	Secretary may establish standards for identity, levels of adulteration, and misbranding. 21 USC 341-343
Regulatory Authority For Exports	Any product may be exported (no permit required) if it (1) accords to specifications of foreign purchaser, (2) is not in conflict with laws of foreign country, (3) is labeled for export, and (4) is not offered for domestic sale. 21 USC 381(d) Foods which are subject to Emergency Permit Controls and for which no permit has been issued cannot be exported. 21 USC 344

Table 2. Regulatory Authority (continued)

FOOD AND DRUG ADMINISTRATION
(continued)

Federal Food, Drug and Cosmetic Act	21 USC 321
Products	Medical devices for human uses. 21 USC 321(h)
Regulatory Authority For Domestic Use	Depending upon the type of device, the Secretary may (1) establish performance standards, (2) require premarket approval, (3) ban devices which present unreasonable deception or an unreasonable and substantive risk of illness or injury, and (4) require recall. 21 USC 360d; 360e; 360f; 360h
Regulatory Authority For Exports	Generally, any product may be exported (no permit required) if it (1) accords to specifications of foreign purchaser, (2) is not in conflict with the laws of foreign country, (3) is labeled for export, and (4) is not offered for sale in domestic commerce. In addition to the above, devices which do not comply with performance standards, have not received premarket clearance, or have been banned cannot be exported unless the Secretary has determined (1) that exportation is not contrary to the public health and safety, and (2) that the foreign country approves. 21 USC 381(d)(1) and (d)(2) Similar requirements for investigational devices (proposed 43 FR 20749 to 21 CFR 812.19(b))

Table 2. Regulatory Authority (continued)

FOOD SAFETY AND QUALITY SERVICE
DEPARTMENT OF AGRICULTURE

Federal Meat Inspection Act	21 USC 601 et seq.
Products	Meat or meat food products of cattle, sheep, swine, goats, horses, mules or other equines.
Regulatory Authority for Domestic Use	USDA Secretary may establish standards for identity, adulteration and misbranding.
Regulatory Authority For Exports	Meat or meat food products not allowed to enter interstate commerce may not be exported. Provisions regarding preservatives used in food products do not apply to such products when exported if (1) they are prepared or packed according to specifications or directions of the foreign purchasers, and (2) no substance used therein conflicts with the laws of the foreign country. 21 USC 606 In addition, livestock and meat or meat food products to be exported must undergo an export inspection and certification procedure. 21 USC 612-618

Poultry Products Inspection Act	21 USC 451 et seq.
Products	Poultry and poultry products.
Regulatory Authority for Domestic Use	USDA Secretary may establish standards for identity, adulteration and misbranding.
Regulatory Authority For Exports	Poultry or poultry products not allowed to enter interstate commerce may not be exported.

TO THE CONGRESS OF THE UNITED STATES:

In accordance with the requirements of Section 1110(b) of the Trade Agreements Act of 1979, I hereby submit to the Congress a study of the factors bearing on the competitiveness of U.S. producers and the policies required to strengthen their relative competitive position in world markets. This study is submitted in conjunction with a report reviewing Executive Branch export promotion activities and potential programmatic and regulatory disincentives to exports, as called for in Section 1110(a) of the Trade Agreements Act. The greater part of the present study was prepared by the staff of the Department of Labor under the guidance of the Trade Policy Staff Committee, chaired by the Office of the United States Trade Representative. Contributions to this study were also made by several other agencies.

The study outlines the broad dimensions of various aspects of the competitiveness of U.S. producers in world markets. It also delineates our competitive position relative to our various competitors on a sectoral basis. Finally, the study directs attention toward the most important general areas for economic and trade policy formulation to strengthen our export competitiveness.

The study finds that during the past two decades there was an erosion in U.S. competitiveness in foreign and domestic markets. The increased international competition facing U.S. producers is in large part the result of increasing supplies of human and capital resources and expanding technological capabilities. Because of higher rates of growth in investment and expanded research activities in other countries, their competitive positions improved, and the United States experienced a relative decline in its trade performance even though the

value of U.S. exports increased substantially, particularly in recent years. That decline has not affected all products, nor has it continued steadily. However, there remains much room for improvement in our competitive position through improvements in productivity.

Problems in our international competitiveness have combined with rapid increases in the cost of oil imports to create persistent merchandise trade deficits.

Despite the reduced U.S. role in world trade and our trade deficits, the United States remains the world's largest exporter. Approximately one dollar out of every five dollars worth of goods produced in the United States is now exported. Further, the United States continues to be competitive with other countries in a wide range of products. Record trade surpluses were recorded in our strongest export sectors in 1979: $18 billion in agriculture and $33 billion in industrial capital equipment.

The evidence presented in the study suggests the following three areas where policies should be considered to improve the competitive position of U.S. producers in world markets:

1. Expanded investment and innovation to enhance the productive capacity of the U.S. economy and raise the productivity of the labor force;
2. Strengthened programs to assist workers in adjusting their skills to shifts in the sectoral structure of the U.S. economy brought about by changes in trade;
3. New policies and programs to implement the Tokyo Round agreements liberalizing access for U.S. exports and, further, identification of the significant remaining barriers to U.S. exports in certain sectors and negotiation to eliminate them.

I believe that export expansion is critical to the health of our economy. The policy emphasis that I have given to increasing exports has been demonstrated in three areas:

1. The National Export Policy that I announced on September 26, 1978;

2. The successful completion of the Tokyo Round of Trade Negotiations and signing of the Trade Agreement Act of 1979; and

3. The reorganization of the trade functions of the Executive Branch carried out earlier this year.

The National Export Policy articulated this Administration's intention to expand exports by increasing direct assistance to U.S. exporters, reducing domestic barriers to exports, and reducing foreign obstacles to our exports. The Tokyo Round agreements allow our exporters to take advantage of greater access to markets overseas through the liberalization of foreign nontariff restrictions and the reduction of foreign tariffs. The Executive Branch trade reorganization centralizes U.S. trade policy functions in the Office of the United States Trade Representative and places trade administration and export promotion functions in the Department of Commerce. This reorganization has greatly enhanced the ability of the Federal government to implement policies for meeting the competitive trade challenges of the 1980s.

This study is the most comprehensive and detailed analysis of the competitive position of the United States in world markets ever undertaken by the U.S. Government. Its findings will be of immediate assistance to me and, I believe, to the Congress as we consider both broad economic policies and special measures to encourage more vigorous gains in our industrial productivity and to improve our international competitive position. I expect to address these matters extensively in the months ahead.

Jimmy Carter

THE WHITE HOUSE,

STUDY OF U.S. COMPETITIVENESS

Study of Export Trade Policy
as Mandated in Section 1110 of the
Trade Agreements Act of 1979

(1110b) Conditions of Competition Study

Submitted to the

Economic Trade Policy Analysis Subcommittee
of the Trade Policy Staff Committee

July 15, 1980

The Trade Agreements Act of 1979 (1110b) requires that:

> "Not later than July 15, 1980, the President shall submit to the Congress a study of the factors bearing on the competitive posture of United States producers and the policies and programs required to strengthen the relative competitive position of the United States in world markets."

Furthermore, the legislative history states that:

> ..."It is imperative that an understanding of the competitiveness of U.S. firms in world markets be acquired so that emphasis can be placed on improving in areas which result in noncompetitiveness and in continuing to strengthen and maintain areas of competitiveness."
>
> "The studies directed by section 1110 are to this end. It is expected that the President will conduct these studies in light of the new potential for export trade that should develop from the implementation of the MTN and not merely update past export promotion studies or summaries. Furthermore, this review should be in such detail and sufficiently comprehensive to be an adequate basis upon which remedial legislation can be drafted should it be necessary."

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I. Executive Summary

Developments in the domestic and international economic position of the United States over the past decade have fueled concerns about the international competitiveness of U.S. producers. Many question the ability of the United States to successfully meet competition in world markets and even in the domestic market. The adverse economic developments have included: growing trade deficits beginning in the early part of the last decade and a loss by U.S. producers of traditional shares of world export markets. These developments have occurred simultaneously with high domestic inflation rates, inadequate investment in private capital expansion and declining productivity growth. The view has often been expressed that the United States has "lost its competitiveness."

The Trade Agreements Act of 1979, Section 1110(b), indicated that the President should report to the Congress on the factors bearing on the competitiveness of U.S. producers in world markets and policies that would strengthen the relative competitive position of the United States. (The same Act, Section 1110(a), also calls for a separate study of specific domestic export incentives, disincentives and U.S. export promotion policies.) This report is submitted to the Congress in fulfillment of Section 1110(b) of the Act.

This study reviews the long-term trade performance of the United States through 1979, and assesses the claim that the United States has lost its competitiveness in overseas markets. This analysis is carried out at both an aggregated level and at a highly detailed level.

The study also examines the key factors affecting the competitiveness of U.S. exports in world markets including: changes in capital and skilled labor resources, investment, technological innovation; productivity and unit labor costs, tariff and nontariff barriers to U.S. exports, foreign investment and technology transfer, tax measures, energy and other factors, including labor-management relations, and the role of engineering and other services in the export of capital goods.

U.S. Export Performance and Competitiveness

Major conclusions of the study are the following:

Many indicators of U.S. trade competitiveness such as export market shares suggest that there has been an erosion of U.S. competitiveness in world markets. 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 even though the level of U.S. exports has increased substantially in recent years.

The United States has suffered a decline in its competitive position in certain product areas since the late 1960s as a result of improvement in the competitive position of other countries. The products involved are primarily consumer goods and automobiles. The countries which have tended to displace U.S. exporters' sales (and, also, U.S. producers' sales in the domestic market) have been Japan and certain of the more advanced developing countries.

-- The product areas in which the decline in the U.S. export position in world markets has been most pronounced include: automotive equipment, dyes, textile and metalworking machinery, domestic electrical equipment, steel, rubber manufactures, copper, furniture, footwear, and miscellaneous manufactures (consisting of diverse consumer products).

Notwithstanding recent trade deficits (attributable mainly to current U.S. oil import dependency), the United States still retains a substantial degree of competitiveness in important export products in world markets. While the composition of U.S. exports has altered in response to changes in world conditions, the U.S. trade balance has been helped by large surpluses in three product categories: capital-equipment goods, high-technology products (many of which are also capital goods), and agricultural products. These categories represent a broad range of U.S. agricultural and industrial production and employment. Furthermore, the general trend in the balance of exports against imports in these three categories has been increasingly positive in recent years. In 1979, the surplus in capital goods trade was a record $33 billion, and the surplus in U.S. agricultural trade achieved a record $18 billion.

-- The detailed product groups in which the United States shows continued export competitiveness over the last two decades include: some chemical products, fertilizers, textile yarns and fabrics, several non-electrical machinery industries, power generating machinery, aircraft, computers, paper, photographic equipment, and scientific, measuring and controlling apparatus.

However, several of the factors that are important for maintaining U.S. competitiveness show trends that are cause for concern. These are:

--Investment. U.S. industrial capital expansion has lagged behind that of our major foreign competitors. Through the 1960s and 1970s, capital resources available per worker in the United States grew by less than 2 percent per year. In contrast, capital available per worker in Japan and Korea increased by more than 10 percent per year. In Europe and many developing countries the growth in capital per worker was more than 4 percent. As a result, the United States dropped from first to sixth place in the ranking of countries according to the amount of capital per worker available. This more rapid growth of capital per worker by other countries has expanded their capabilities to supply and compete in those markets for traditionally strong U.S. exports. Thus, the absolute role of the United States in world trade has declined and it is meeting increased competition for the sale of its traditional export products.

--Technological Development. The absolute size of expenditures on research and development in the United States still constitutes a majority of such expenditures of the developed countries. However, other countries, especially Japan and West Germany, have increased their R&D efforts substantially in proportion to their GNP, while U.S. R&D expenditures as a percentage of GNP have declined in recent years. Because U.S. exports of manufactures are dominated by high technology products, a future decline in U.S. R&D expenditures in absolute terms or even relative to foreign competitors would threaten the United States with a loss of foreign markets for U.S. manufactures exports. Already, Japan has joined the United States in having a competitive advantage in a number of high-technology products, and competition between the two countries will likely increase in the future.

--Productivity. U.S. productivity growth in manufacturing has lagged 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. The comparatively high productivity growth rates in Japan and most of Europe have permitted more rapid increases in real wage rates in these countries than in the United States. These changes in productivity are consistent with more rapid growth of capital and technological capabilities abroad.

--Foreign Trade Barriers. Many U.S. businessmen and labor leaders cite foreign tariff and nontariff barriers to trade (NTB's) as serious impediments to increases in U.S. exports. The recently concluded Tokyo Round of Multilateral Trade Negotiations resulted in agreements to substantially reduce tariff barriers and to liberalize or, in some cases, eliminate major NTBs. Nevertheless, a number of barriers to U.S. exports of agricultural and manufactured products remain. Restrictive foreign government policies concerning public purchases of some types of high technology products have not been completely covered by the Tokyo Round agreements.

Policies to Strengthen Competitiveness

While a number of other factors that have an important influence the competitive position of the United States are discussed . the report, the policy directions considered most important in strengthening the relative competitive position of the United States pertain to the several factors discussed above. The policy directions considered relate to (1) an expansion of domestic investment; (2) the need to promote domestic labor and capital adjustments to shifts in industry competitiveness; and (3) trade policies to strengthen U.S. competitiveness.

Probably the most important policy direction to strengthen the competitive position of U.S. producers is to expand private investment expenditures on plant and equipment. A substantial expansion in the domestic investment of the economy would reduce domestic inflation, improve productivity growth and accelerate the rate of technical and product innovation, all of which would have direct and positive consequences for U.S. trade performance. In turn, a reduction in the inflation rate would itself tend to expand U.S. investment and improve competitiveness by further lowering interest rates that are costs to businesses borrowing financial capital and also by slowing the rise in other costs.

Cost effective policies should be further developed to foster the adjustment of productive resources, especially labor, to changed international competitive conditions in various industries. In sustaining a long-term expansion of U.S. exports, imports will also tend to grow as U.S. incomes rise. Pressures to impose restrictive trade actions on imports that compete with domestically produced goods will have to be resisted and reported to only when absolutely necessary. However, to maintain a liberal trade policy in the face of the increasing pressures on import-competing industries, it would be desirable to facilitate further the adjustment of displaced workers.

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The Tokyo Round trade agreements will tend to strengthen the competitive position of U.S. exporters in world markets. The final outcome for U.S. export interests will depend on U.S. efforts to see that the agreements are enforced and that trade concessions are implemented by foreign countries. In addition, efforts to expand the country and product coverage of the agreements in the coming years must be vigorously pursued. Because of their growing economic role in the world, special efforts should be continued to bring the more advanced developing countries within the disciplines of the major new trade agreements. A code on safeguard actions should be negotiated which increases international discipline over governmental actions to restrict trade.

Detailed studies of the long-term trends in the competitive position and barriers to trade of individual U.S. industries should be undertaken. These studies should be designed to identify industries for which additional efforts should be made to achieve further liberalized access for their potential exports. The studies should be followed by new trade negotiation initiatives to seek improved access.

Of course, not all of the factors that affect the competitive position of the United States in world markets are best dealt with by changes in Federal policy alone. One such factor is the cooperation between labor, management and government. The productivity and competitive position of some foreign countries appear to have benefited from a greater degree of such cooperation. More American manufacturers can become internationally competitive to the extent that there is cooperation to improve workplace efficiency and production consistency.

II. Introduction and Background

This report was undertaken pursuant to Section 1110 of the Trade Agreements Act of 1979, signed by the President on July 26, 1979. Section 1110 calls for the submission of two Presidential reports to the Congress by July 15, 1980. One reviews U.S. export promotion policies and export disincentives. This report is required by Section 1110(a). The other, required by Section 1110(b), examines the factors bearing on the competitive position of the United States in world markets and the policies and programs required to strengthen the competitive position of the United States. This report is submitted in fulfillment of the requirement for the second of the two studies.

Congressional Committee reports on the Trade Agreements Act indicate that the report should be both detailed and comprehensive. This report attempts to be both comprehensive in its scope and detailed in its analysis. Many of the major factors which bear upon the competitiveness of U.S. producers in overseas markets are examined in this report. Some are left, however, for the detailed review of U.S. export disincentives and promotion policies contained in the report submitted in accordance with the requirements of Section 1110(a). References to discussions of important factors bearing on U.S. export competitiveness that are dealt with in the Section 1110(a) report are made as appropriate. Some overlap is, however, difficult to avoid because of the close interrelation of factors and policies affecting U.S. trade competitiveness.

This report is divided into four chapters: (1) a review of broad trade trends and influences on U.S. trade performance over the last two decades; (2) a more detailed analysis of U.S. performance in international markets by specific product categories; (3) a review of fundamental factors which appear to determine the volume and structure of U.S. exports as well as the level of specific export product categories; and (4) a survey of economic and trade policies for strengthening the competitive position of U.S. exports in world markets. A set of background papers containing full discussions on a more detailed and technical basis is appended to this report. The report draws much of its content from those papers.

This report was prepared for the Economic Trade Policy Analysis Subcommittee of the Trade Policy Staff Committee (TPSC). The activities of the TPSC and the Subcommittee are both chaired and coordinated by the Office of the U.S. Trade Representative (USTR) and composed of representatives of the Executive Branch departments responsible for trade issues.

The key role in the various phases of preparation of this report was performed by the Department of Labor's Office of Foreign Economic Research whose staff wrote and compiled most of this report. Other agencies which contributed to the report

are the Office of the U.S. Trade Representative, the Council of Economic Advisors, the National Science Foundation, the Departments of Agriculture, Commerce, Treasury and State, and the International Trade Commission.

Note on the Information Used in the Preparation of the Report

The analysis of international trading relationships and the factors underlying their change requires a substantial volume of internationally comparable data. Although in many cases these data can be obtained from a single source (e.g., the Census Bureau, OECD), it is often required that data from a variety of sources be used. In consequence, completeness of analysis requires that sacrifices be made with regard to both the comparability of sources and also the coverage of data both across countries and over time.

This study has made every effort to achieve consistency of sources while at the same time utilizing the most up-to-date data. These two goals, however, are often in conflict. As a result, the reader will find that across sections of the report both the sources of data and the length of the time period covered will often differ. For example, the detailed analysis of U.S. trade structure presented in Chapter IV is based on OECD Trade Series C data which cover the time period from 1961 to 1977 whereas the aggregate level analysis of trade flows in Chapter III analyzes data through 1980, some of which come from the Department of Commerce.

An important point to be made regarding differences in the length of time period examined is that most of the relationships studied here represent long-term (structural) factors. These underlying factors often change relatively slowly and it is an analysis of the trends, and the changes in the trends, of these structural factors that are the most important for understanding the changing structure of world trade. This does not deny that short-run changes are often important and require attention. However, it is the long-term structural factors that, once identified and studied, provide the basis upon which to assess the competitive strength of U.S. producers and the basis upon which sound economic policy can be made. Since it is these structural factors that are the proper concern of policy makers, the omission of the most recent data does not significantly affect the ability of the analysis to discern the underlying trends.

Although this report is perhaps the most comprehensive analysis of changing trade structure and the factors underlying these changes in recent years, there remain a number of ways in which the data could be further analyzed. For example, further disaggregation of the trade data, the analysis of different subperiods and the regional distribution of U.S. and other

countries' trade would have undoubtedly yielded insights beyond those reported here. Such additions must await further study.

Finally, USTR issued a Federal Register notice on April 29, 1980, requesting private sector comments on the factors affecting the competitiveness of U.S. producers. A summary of the responses is contained in the Annex.

III. MACROECONOMIC FACTORS AFFECTING AGGREGATE TRADE PERFORMANCE

OVERVIEW AND SUMMARY

- This chapter puts issues surrounding U.S. competitiveness into perspective by analyzing the macroeconomic variables (e.g. exchange rates, inflation, aggregate demand, capital flows, etc.) which affect trade flows. It also contains a review of aggregate U.S. trade performance over the past twenty years.

- The proportion of the production of U.S. goods that enters into international trade has, increased each year since 1970. During the post-war period through 1970, the ratio of U.S. exports to GNP was 4 percent. By 1979, this ratio had almost doubled to 7.5 percent. On the import side, because of the rapid increase of petroleum and manufactures imports over the last decade, the ratio of imports to GNP increased from 4 percent to 9.2 percent by 1979.

- While international trade has become increasingly important to the U.S. economy, the U.S. share of world trade has become smaller. The U.S. share of total industrial country exports declined from 25.2 percent in 1960 to 18.3 percent in 1979. The U.S. share of industrial country exports of manufactures fell from 22.8 percent to 15.5 percent over the same period. This development may be viewed as a reflection of the smaller share of U.S. GNP in total industrial country GNP. Adjusting for the declining trend in U.S. GNP, the U.S. share of industrial country exports has not declined since 1960.

- The United States had small surpluses in its agricultural trade in the 1960s. Agricultural exports soared in the 1970s, 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-1970s. In 1979, the U.S. agricultural trade surplus reached a record of $17.9 billion.

- Because of the importance of U.S. manufacturing exports and imports in total trade relative to total merchandise trade, the trade balance in manufacturing has tended to coincide with the movements in the overall trade balance and to be influenced by the same macroeconomic factors. The surplus in manufactures declined through the late 1960s and a deficit emerged in 1972. In 1976, there was a surplus of $12 billion in U.S. manufactures trade. However, since 1976 there has been a decline in the U.S. trade balance in manufactures with a deficit of $8.3 billion appearing in

1978. In 1979, a reversal occurred and the United States had a surplus of more than $4 billion in manufactured products.

- The United States trade balance in manufactures has been helped by large trade surpluses 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 U.S. trade balance in capital goods reached a record surplus of $32.6 billion. 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 had small trade deficits in petroleum and petroleum products through the 1960s. 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 1970s, 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 $2 billion in 1971 to $55 billion in 1979 and has had a dampening effect on U.S. economic growth. Oil imports as a percentage of total imports rose from 7 percent in 1970 to 27.5 percent in 1979.

- The U.S. trade surplus with the developed countries (DCs) declined through the 1960s. Deficits emerged in the late 1960s and early 1970s. The deficit widened to $13 billion in 1978. In 1979, however, the U.S. trade deficit vis-a-vis the developed countries declined to $1 billion because of a substantial increase in U S. exports to these countries.

- The less developed countries (LDCs) are playing an increasingly important role in U.S. trade. The LDCs supplied 45 percent of total U.S. imports and 26 percent of U.S. imports of manufactures in 1979 compared with only 26 percent and 14 percent in 1970, respectively.

- The LDCs also take an important and growing share of U.S. exports. The LDCs share of U.S. exports rose from 31 percent in 1970 to 37 percent in 1979. U.S. exports to non-OPEC developing countries have remained relatively constant over this period, whereas the share of U.S. exports to OPEC countries has increased from 6 percent in 1970 to 10.3 percent in 1979.

1. MACROECONOMIC FACTORS AFFECTING AGGREGATE TRADE PERFORMANCE

1.1 Introduction

This section introduces three basic measures of a country's aggregate competitiveness: the trade balance, the terms of trade and export market share. Subsection 1.2 discusses these measures and describes the linkages between them. The third subsection indicates how, and to what extent, these measures are affected by various macroeconomic factors such as exchange rate changes, growth, inflation and business cycles.1/ Section 2 presents a detailed review of the trends in aggregate U.S. trade.

1.2. Macroeconomic Indicators of Aggregate Trade Performance

1.2.1. The Trade Balance

The trade balance is a commonly used measure of a country's overall trade performance. There are a number of different measures of the trade balance, three of which will be discussed in Section 2. In this section, the trade balance is defined as the balance on merchandise and services trade excluding income on international investments (receipts and payments for capital services).

Under the present regime of floating exchange rates, the trade balance is one element in a very complex system. The trade balance responds to changes in the exchange rate and the exchange rate responds to changes in the trade balance.2/ More generally, exchange rate adjustments act to bring into balance the total inflow and outflow of dollars to the United

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1/For a more detailed discussion of macroeconomic factors affecting U.S. trade performance, see Dale Larson, "The Macroeconomics of U.S. International Competitiveness", which is appended as a background paper to this report.

2/It is useful to view the interaction between the exchange rate and the trade balance in a broader macroeconomic framework. First, inasmuch as the exchange rate and trade flows are not the sole determinants of each other, such an approach will aid in the understanding of this equilibrating mechanism. Second, a more complete model is necessary in order to analyze the effects of other factors such as economic growth, taxation, productivity, etc., on the macroeconomic indicators discussed above. A simple but sufficiently complete model is presented in Larson (1980).

States. These dollar flows arise not only from everyday commodity transactions but also as the result of international investments and other noncommodity transactions usually classified as capital flows. A continuous capital inflow or outflow tends to change the exchange rate by altering the amounts of dollars that are willingly supplied and demanded in the foreign exchange markets. The change in the exchange rate, in turn, affects the prices for imports faced by U.S. residents and the foreign prices of U.S. exports which alters the quantities of exports and imports exchanged. Thus, changes in the trade balance are not independent of changes in the total inflows and outflows of private dollar holdings.

The tendency of the trade balance to respond to changes in the exchange rate, and the tendency of the exchange rate to respond to changes in the trade balance has several implications. First, given flexible exchange rates, a trade deficit does not necessarily imply that some public policy response is necessary. Likewise, a trade surplus would be an elusive public policy goal. Second, an improvement in the international competitive performance of one industry, because of its effect on the exchange rate, may contribute to a deterioration in the international competitiveness of other industries. Thus the competitiveness of any one industry cannot be understood solely by comparing it with its counterpart abroad. Each industry must also be viewed in comparison with the other domestic industries with which it competes for resources such as land, labor and capital.

Finally, a trade imbalance caused by other factors which have an impact on exports or imports such as inflation and differential growth in productivity should only cause a temporary imbalance unless the changes in such factors are of a continuing nature. That is, sustained differentials in inflation and product vity growth, etc., may require continuing exchange rate adjustments to counter continual tendencies toward trade imbalance.

1.2.2. The Terms of Trade

The terms of trade measure the rate at which a country's exports can be exchanged for its imports.3/ Most indicators of competitiveness compare U.S. goods with similar foreign-made

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3/The terms of trade refer to the price of a country's imports in terms of its exports. For example, if the United States exports machinery and imports oil, an increase in oil prices relative to machinery prices would cause the U.S. terms of trade to worsen. That is, it would take a greater amount of machinery exports to pay for the same quantity of oil imports.

goods with which they compete. The terms of trade, however, compare U.S. goods with the relatively dissimilar goods for which they are exchanged on world markets. Among all the macroeconomic indicators of international performance, the terms of trade are the most closely associated with U.S. welfare and thus warrant special consideration. This is particularly true since many of the public policies addressed to other indicators (e.g., export subsidies to correct a trade imbalance) may have an adverse effect on the terms of trade, and thus U.S. welfare.

1.2.3. Export Market Share

A country's share of world exports, often measured for subgroups of goods (e.g., manufactures), is a commonly used indicator of a country's competitiveness. The assumption underlying an examination of export market shares is that in the absence of changes in competitiveness, a country's share should remain constant.

At the individual product level, such an assumption is conceptually valid. However, changes in a country's aggregate market share is but an average of the changes in these individual shares. By the principle of comparative advantage, a country cannot become more or less competitive in all products simultaneously since trade involves the exchange of those products that a country can produce most competitively for those in which it is least competitive. Consequently, to achieve the gains that arise through trade a country will reduce its output and increase its imports of those commodities in which it has a comparative disadvantage. Correspondingly, it will increase its output and exports of those commodities in which it has a comparative advantage.

The preceding indicates that changes in a country's export market share are, in part, influenced by changes in the commodity composition of its trade. Therefore, a decline in export market share may only represent the natural shift in the composition of a country's trade needed to take advantage of the gains from trade. Changes in export market shares, however, are also influenced by differences in growth among countries. In this case, a decline in share might only indicate that the country is becoming smaller relative to world trade and need not imply any loss in its competitiveness. The critical feature of changes in export market shares is that they most likely reflect changes in the composition of a country's trade due to underlying structural factors. If so, then an understanding of the changes in a country's export market share requires a detailed study of the changes in these structural factors. The present study, in part, undertakes such an analysis.

1.3. The Importance of the Exchange Rate in Affecting Overall Competitiveness

A major element in the preceding discussion is the observation that the exchange rate helps to determine the trade balance and that exports and imports help to determine the exchange rate. If for some reason the United States begins to import more goods and services than it exports, the dollar will tend to decline relative to other currencies. This decreases the price in foreign currencies of U.S. exports and increases the dollar price of imports in the United States. The resulting overall increase in international competitiveness of U.S. exports tends to offset the trade deficit. Conversely, if the United States should begin to run a surplus, the dollar will increase in value and the overall price competitiveness of U.S. goods and services will decline and will tend to offset the trade surplus. Thus, through its interaction with the trade balance, changes in the exchange rate affect the overall competitiveness of U.S. exports.

1.4 Determination of the Exchange Rate

Dollars and other currencies which are in circulation must be held in the wealth portfolios of individuals and firms somewhere in the world. While the majority of all currencies are held by residents of the issuing country, many banks, foreign governments, and multinational firms as well as some individuals hold portfolios that contain more than one currency. The proportions in which they hold the various currencies reflect their needs and desires based upon their evaluation of actual and expected economic conditions.

Exchange rates are prices of currencies in terms of other currencies and are therefore important determinants of the mix of currencies that people wish to hold. In general, people will want to hold relatively large amounts of currencies expected to appreciate and relatively small amounts of those expected to depreciate. If exchange rates change, people may wish to rebalance their portfolios by readjusting the quantities of the different currencies they hold.[4] The

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[4] Suppose that the U.S. Federal Reserve increases the number of dollars in circulation . Given that prices and incomes are affected by a change in the money stock only after a time lag, people find themselves being asked to hold more dollars, compared to foreign currencies, than they are willing to hold. Consequently, in an effort to rebalance their portfolios, people attempt to exchange some of the new dollars for foreign currencies. This drives down the price of the dollar until people are once again satisfied with the

exchange rate that results is the one at which people are just willing to hold the available stock of each currency.

The important determinants of people's desires to hold dollars are U.S. prices and U.S. incomes.[5] For example, dollars are needed in the United States to transact business. When either U.S. prices or incomes rise, more dollars are needed for transactions. One way people attempt to get these dollars is by selling foreign currencies. This increases the foreign currency price of the dollar and reduces the dollar price of foreign currencies until people become reluctant to sell any more foreign currency at these lower dollar prices. In this way, the value of the dollar relative to other currencies is determined.

1.5. The Effects of Growth, Cyclical Fluctuations and Inflation on U.S. Competitiveness

1.5.1 Growth

The United States has, on average, grown more slowly than its trading partners over the last two decades. Economic theory leads us to expect that, with all else equal, a relatively slower rate of growth of income in the United States compared to abroad should cause U.S. exports to grow faster than U.S. imports and thus lead to a U.S. trade surplus. Given that exchange rates adjust to forestall this movement, the effect of relatively slower growth will be to improve the U.S. terms of trade and thus U.S. welfare.

The slow growth of an economy entails not only slow growth in income but also production and thus slow growth of supplies of goods and services for export as well as for domestic consumption. Therefore, regardless of whether a slow growing economy tends to run a deficit or surplus on its trade account,

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relative values between the dollars and the foreign currencies they hold. If the number of dollars in circulation falls this process begins in reverse. Of course, the value of the dollar changes not only with changes in stocks of money available to be held, but also with changes in people's desires to hold the available stock of money.

[5] The rate of interest--the opportunity cost of holding money--is also a determinant of peoples' desires to hold dollars. On the one hand, because dollar assets pay a higher rate of return, a rise in U.S. interest rates increases the desireability of dollars versus other currencies and will increase the value of the dollar. On the other hand, higher interest rates encourage people to economize on their dollar balances. This reluctance to hold dollars will adversely affect the exchange rate.

it is likely to experience a decrease in its share of foreign markets relative to more rapidly growing economies over the long term. Hence, it would not be unexpected to observe a decrease in the U.S. export share of foreign markets. Such a decrease, however, should not be dismissed simply as the result of differences in growth because it is important to understand the causes of slower relative growth.

1.5.2 Cyclical Fluctuations

When the United States and its trading partners grow at different rates over the course of the business cycle, large trade imbalances can result. The sequence of events leading to these imbalances is that an increase in U.S. income leads to a rise in imports, a fall in the value of the dollar, a rise in exports, and finally, as the trade balance improves, at least a partial recovery of the dollar. Thus, ironically, it is often true that the competitiveness of U.S. exports increases (in terms of the ability to grow and capture market shares) precisely when the trade balance is at its worst.

1.5.3 Inflation

Differences in the rate of inflation in the United States and abroad can have an impact on U.S. trade flows, the exchange rate and on the terms of trade. Higher rates of U.S. inflation relative to its major trading partners causes U.S. consumers to shift their expenditures away from import-competing domestic products toward imports. Similarly, consumers abroad tend to shift their expenditures away from U.S. products and toward other sources of imports as well as their own domestic sources. Consequently, U.S. exports will fall and imports will rise. These changes in exports and imports will tend to give rise to a trade deficit. This movement toward deficit will in turn be offset by a reduction in the value of the dollar. Thus, under a system of flexible exchange rates, higher rates of inflation in the United States relative to other countries will tend to be offset by a fall in the value of the dollar. The fall in the value of the dollar on foreign exchange markets, however, is likely to lead to a deterioration in the terms of trade.

1.5.4. Other External Shocks - Oil Price Increases

External shocks, such as the oil price increases since 1971 or the rise in many primary product prices in the mid-1970s can also have an effect on trade flows, the exchange rate and the terms of trade. The oil price rise is perhaps the most important external shock to occur in the past decade. For oil, the increase in its price has led to an increase in total expenditures on oil imports. However, the tendency toward a

merchandise trade deficit as a result of these increased expenditures may not be eliminated by exchange rate adjustments. Although a large fraction of the oil exporters' earnings is respent on U.S. goods and services, U.S. exports to the oil exporters have not increased as rapidly as U.S. oil imports, and large deficits have emerged. The oil exporters have used part of their surplus to purchase private and official U.S. securities, so that many of the dollars spent on oil imports never reach the foreign exchange market and, therefore, have no effect on exchange rates.

External shocks, and in particular, the increase in oil prices, can have effects on the terms of trade. If oil import prices rise faster than U.S. export prices, the U.S. terms of trade will tend to deteriorate. In addition, an increase in oil import prices can affect the prices of all traded goods and, depending on the commodity composition and energy content of trade, it can also have a secondary effect on the terms of trade. This point will be discussed further in section 7 of Chapter IV.

2. REVIEW OF AGGREGATE U.S. TRADE PERFORMANCE[6/]

2.1. Introduction and Summary

The preceding discussion of the impact of macroeconomic factors on various measures of trade performance provides a framework to survey and explain actual U.S. trade performance in recent years. This section reviews both aggregate trends in U.S. trade and trends in the country and regional composition of U.S. trade flows. The main conclusions of this section are indicated below:

2.1.1. Summary - Trends in the Merchandise and Current Accounts

-- The merchandise and current accounts tend to move counter-cyclically to changes in domestic income. The early 1960s were characterized by growing trade surpluses as domestic income grew less rapidly than foreign income. The late 1960s and early 1970s were characterized by more rapid U.S. growth

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6/For a more detailed description and analysis of U.S. trade and the macroeconomic factors which affect U.S. trade flows, see T. Bayard, "Trends in U.S. Trade: 1960-1979," and Larson (1980) Both of these papers are attached to this report as background documents.

and also a deterioration in the trade balances culminating in deficits in 1971 and 1972.

-- The regime of flexible exchange rates (1971 or 1973 to the present) has been characterized by wide fluctuations in the trade balances.

-- Trade, in general, is playing an increasingly important role in the U.S. economy. The ratio of imports to GNP has risen from 4 percent in 1970 to 9 percent in 1979. The export share of GNP rose from 4 percent to 7.5 percent in the same period.

2.1.2. Summary - Trends in the Commodity Composition of U.S. Trade

Agriculture

-- The United States ran small surpluses in agricultural trade in the 1960s. Agricultural exports soared in the 1970s, with a trade surplus which has averaged well over $10 billion since the mid-1970s. In 1979, the U.S. agricultural trade surplus reached a record of $17.9 billion.

Manufactured Goods

-- The manufactured goods trade balance has tended to follow the overall trade balance. The surplus in manufactures declined all through the late 1960s and a deficit emerged in 1972. Since then, there have been wide fluctuations in the manufactures trade balance. In 1979, there was a trade surplus of $4 billion in manufactures.

-- The United States experienced growing deficits in (non-automotive) consumer goods since the early 1960s and growing deficits in automotive vehicles and parts since the late 1960s. In contrast, the U.S. surplus in capital goods has grown regularly since the 1960s. Similarly, the United States has maintained a trade surplus in high-technology commodities. There is some evidence, however, that U.S. producers have been losing their competitive edge in certain high technology exports in recent years.

Petroleum

-- The United States ran small trade deficits in petroleum and petroleum products through the 1960s. Both the volume and the price of oil imports increased in the 1970s. The oil deficit grew from $3 billion in 1971 to $55 billion in 1979.

Recent declines in U.S. oil import volumes were more than offset by rapid price increases and this has had a dampening effect on U.S. economic growth.

2.1.3. Summary - Trends in the Country and Regional Composition of U.S. Trade

-- The U.S. trade surplus with the developed countries (DCs) declined through the 1960s and deficits emerged in the late 1960's and early 1970s. The period since 1971-1973 has been characterized by wide fluctuations in the trade balance with the DCs.

-- The United States ran small trade deficits with Japan in the mid-1960s. These deficits grew through the 1970s and reached a peak of $12 billion in 1978. The deficit declined to $9 billion in 1979, in part due to the massive depreciation of the dollar vis-a-vis the yen between 1977-79.

-- The United States maintained small surpluses with Canada, our largest trading partner, until the late 1960s. The deficit with Canada grew during the 1970s and reached $5 billion in 1979.

-- Historically, the United States has run large surpluses with the EC, although there have been large fluctuations in recent years. In 1979, there was a trade surplus of $9 billion.

-- The less developed countries (LDC's) are playing an increasingly important role in U.S. trade. The LDC's 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.

-- The United States tended to run surpluses with the non-oil exporting LDC's and deficits with the oil exporters in the 1970s. In both absolute and relative terms, the U.S. market for LDC exports of manufactures is substantially greater than those of the major developed trading countries. The deficit with the oil exporters rose steadily in the 1970s and reached $30 billion in 1979. Since the early 1970s, the United States has experienced declining trade surpluses or growing deficits with the more advanced of the developing countries, such as Brazil, Mexico, Taiwan, Korea and Hong Kong.

Below the growing importance of trade to the United States is discussed. Following this, a detailed discussion of the trends summarized above is given.

2.2. The Importance of U.S. Trade in Foreign and Domestic Markets

This section discusses the growing importance of merchandise trade to the U.S. economy. It also discusses U.S. trade performance as measured by a number of summary indicators.

Merchandise trade is becoming increasingly important in the U.S. economy. As Table III-1 indicates, the ratio of U.S. exports to GNP has risen fairly steadily from 4.3 percent in 1970 to 7.5 percent in 1979. The ratio of imports to GNP has climbed from 4.3 percent in 1970 to over 9 percent in 1979. Relative to final sales of goods in the United States, exports and imports are also becoming more important. In 1979, exports were 17.3 percent of final sales and imports were 21.2 percent of final sales. Overall, the traded goods sector in the United States grew rapidly during the 1970s.

The growth in the volume of U.S. trade is shown in Table III-2. Total U.S. imports and exports have grown at roughly equal rates since 1967. Manufactured goods imports have grown slightly faster than manufactured exports since 1967. U.S. import and export volumes have tended to grow more slowly than those of the major industrial countries (see Table III-3).7/

The U.S. share of total world exports has declined since 1970, while the shares of our major international competitors have remained roughly constant (See Table III-4). Table III-5 shows that the U.S. share of total world exports of manufactures has also declined, while our competitors have either maintained or increased (i.e., Japan) their shares. As Table III-6 indicates, the United States has tended to lose market share in the import markets of Japan and the developing countries. This relatively poor U.S. export performance is one indication of a possible decline in U.S. competitiveness.

Table III-7 below examines the decline in the U.S. share of world trade from a different perspective taking account of the relatively smaller size of the U.S. economy. The table shows that as a share of the 15 major industrial countries, U.S. merchandise exports fell from 25.2 percent of total in 1960 to 18.3 percent in 1979; for exports of manufactures, the U.S. share fell from 22.8 percent in 1960 to 15.5 percent in 1979.

However, during these two decades, the other major industrial countries achieved, on average, higher rates of growth in their gross national products (GNP) than did the United States. As a result, the U.S. share in the aggregate

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7/The same is true for volumes of manufactured goods imports and exports.

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Table III-1

Ratio of U.S. Exports and Imports to GNP and Final Sales of Goods

	Ratio of U.S. Exports (F.a.s.) to:		Ratio of U.S. Imports (C.i.f.) to:	
	GNP	Final Sales*	GNP	Final Sales*
1970	4.3	9.3	4.3	9.3
1971	4.1	9.1	4.6	10.1
1972	4.2	9.3	5.1	11.2
1973	5.4	11.7	5.6	12.2
1974	6.9	15.2	7.6	16.9
1975	7.0	15.6	6.8	15.2
1976	6.7	14.9	7.6	17.0
1977	6.3	14.3	8.3	18.9
1978	6.6	15.2	8.6	19.7
1979	7.5	17.3p	9.2	21.2p

* includes inventory changes

p = preliminary

Source: U.S. Department of Commerce, International Economic Indicators (Various Issues).

Table III-2

Volume Indices of U.S. Imports and Exports
(1967 = 100)

	Exports		Imports	
	Total	Manufactures	Total	Manufactures
1970	124.2	125.3	133.2	146.8
1971	122.9	127.1	144.3	162.2
1972	134.8	138.0	163.9	186.0
1973	166.1	168.5	174.0	195.5
1974	180.8	199.0	167.0	186.4
1975	177.0	191.9	148.2	154.5
1976	183.1	195.5	180.4	194.3
1977	185.7	193.3	203.5	216.7
1978	205.9	215.5	219.6	251.8
1979	222.8P	224.4P	220.9	254.5

Source: U.S. Department of Commerce, International Economic Indicators (Various Issues).

p = preliminary

Table III-3

Export and Import Volume Indices of Major World Trading Countries
(1967 = 100)

	U.S.		France		Germany		Italy		Netherlands		United Kingdom		Japan		Canada	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
1970	124	133	148	147	137	156	141	144	154	149	129	118	169	155	137	120
1971	123	144	161	159	145	173	152	144	172	158	138	123	203	155	145	132
1972	135	164	184	181	158	190	170	159	186	166	138	138	217	175	159	154
1973	166	174	202	206	183	202	173	178	218	188	158	158	228	224	176	179
1974	181	167	222	212	205	199	186	168	223	182	169	160	266	219	170	198
1975	177	148	214	199	184	193	190	149	217	176	162	143	272	187	156	187
1976	183	180	235	241	209	221	213	172	243	197	175	151	329	202	175	201
1977	186	204	249	243	214	229	230	170	242	201	193	153	360	208	191	202
1978	206	220	264	255	223	247	256	185	249	212	197	161	356	221	209	209
1979	22)P	,221	291	285	239	269	275	210	271	226	204	179	360	246	215	231

Source: U.S. Department of Commerce, International Economic Indicators (Various Issues).

Table III-4

Shares of Total World* Exports: 1970-1979
(Percent)

	United States		France	West Germany	Italy	Netherlands	United Kingdom	Japan	Canada
	Excl. Exports to U.S.	Incl. Exports to U.S.							
1970	18.0	15.4	6.5	12.2	4.7	4.2	6.9	6.9	6.0
1971	16.4	14.0	6.6	12.4	4.8	4.4	7.1	7.6	5.8
1972	15.6	13.3	7.1	12.5	5.0	4.5	6.5	7.7	5.7
1973	15.8	13.7	7.0	13.0	4.3	4.6	5.9	7.1	5.1
1974	14.7	12.8	6.0	11.6	4.0	4.3	5.1	7.2	4.5
1975	15.5	13.6	6.7	11.4	4.4	4.4	5.6	7.1	4.3
1976	14.8	12.8	6.4	11.4	4.1	4.5	5.2	7.5	4.5
1977	13.8	11.8	6.4	11.6	4.4	4.3	5.7	8.0	4.2
1978	14.2	12.1	6.7	12.0	4.7	4.7	6.1	8.3	4.1
1979	14.0	12.1	6.8	11.5	4.8	4.8	6.1	6.9	3.9

Source: U.S. Department of Commerce, International Economic Indicators (Various Issues).

*The "World" is defined as the free world which includes all countries except Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, U.S.S.R., People's Republic of China, North Korea, Viet-Nam, Outer Mongolia, and Cuba.

Table III-5

Shares of World* Exports of Manufactures
(Excluding Exports to the United States)

	United States	France	F.R. Germany	Italy	Netherlands	United Kingdom	Japan	Canada
1970	21.3	9.1	19.8	7.1	4.6	10.4	8.9	1.8
1971	19.7	9.3	20.2	7.3	4.9	10.9	9.9	1.4
1972	18.4	9.8	20.6	7.6	5.0	9.8	10.2	1.3
1973	18.0	9.8	21.8	6.8	5.3	9.0	10.4	1.1
1974	18.8	9.2	21.5	6.8	5.4	8.4	11.9	1.1
1975	19.2	10.2	20.1	7.3	5.1	8.9	11.4	1.1
1976	18.8	9.8	20.8	7.2	5.2	8.5	12.0	1.1
1977	17.3	9.9	20.9	7.7	4.9	9.2	12.6	1.0
1978	17.0	9.9	20.7	7.9	4.8	9.4	12.5	1.0
1979	17.4	10.7	20.8	8.3	4.9	9.5	10.8	1.0

Source: U.S. Department of Commerce, "International Economic Indicators", (Various Issues).

*"World" is defined as the 14 major industrial countries.

Table III-6
U.S. Share of Imports of Selected Countries: 1970-1979
(Percent of Total Imports Supplied by U.S.)

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Developed Countries	NA	12	11	11	11	11	11	10	NA
Canada	71	70	69	71	67	68	69	70	70
EC	9	9	8	8	8	8	8	7	8
Japan	30	25	25	24	20	20	18	18	19
Developing Countries	NA	21	19	19	18	19	18	16	NA
OPEC	NA	NA	19	18	18	19	19	17	NA
Communist Countries	NA	1	2	4	3	3	4	3	NA

Sources: U.S. Department of Commerce, Overseas Business Reports, U.S. Foreign Trade Annual (1979 and 1977).

N.A. = not available

Table III-7

U.S. Export Market Shares Adjusted for Changes in the GNP Share of the United States*

	1960 (%)	1965 (%)	1970 (%)	1975 (%)	1979 (%)
U.S. share of merchandise exports of 15 industrial countries	25.2	22.7	20.5	19.9	18.3
U.S. share of exports of manufactures of 15 industrial countries	22.8	NA	18.4	17.3	15.5
U.S. share of GNP of industrial countries	57.1	52.9	50.2	40.8	38.1**
			(1960 = 100)		
Index of U.S. merchandise export shares	100	90.0	81.3	79.0	72.3
Index of U.S. export shares for manufactures	100	NA	80.7	75.9	68.0
Index of U.S. share of GNP	100	92.6	87.8	71.4	66.7
U.S. merchandise export share index adjusted for changes in U.S. GNP share	100	NA	91.9	106.3	101.9

* Share of total exports and GNP of U.S. and 14 other industrial countries (Canada, Japan, Austria, Belgium, Denmark, France, Germany, Italy, Luxembourg, Netherlands, Norway, Sweden, Switzerland, and the United Kingdom).

** Estimate

Sources: Prepared by the Office of The U.S. Trade Representative from International Financial Statistics (IMF) and International Economic Indicators (Dept. of Commerce), selected issues.

GNP of the industrial group declined from 57.1 percent of total in 1970 to an estimated 38.1 percent in 1979.

More rapid economic growth abroad may have been an element contributing to the decline in U.S. export market shares. In Table III-7, the index for U.S. export market share has been adjusted to reflect the overall decline in the U.S. share of industrial country GNP. The data show that the U.S. export market share was falling faster than the U.S. share of GNP in the 1960s, but that this trend was reversed in the 1970s. By 1979, the unadjusted export market share indices for the United States had fallen substantially from the levels of 1960, but when adjusted for the declining U.S. share of the total GNP of the major industrial countries, the U.S. export market share indices were actually above the level of 1960. This was true both for general merchandise exports and, to a lesser extent for exports of manufactures. These data suggest that the declining market shares of the value of U.S. exports may have reflected the relatively slower growth of the U.S. economy compared with other industrialized countries more than a failure on the part of the United States to participate in export expansion as much as other countries.

For the United States, the decade of the 1970s was a period of restructuring following the depreciation of the dollar in the early 1970s. Because dollar depreciation affects the competitiveness of U.S. exports directly, it is useful to compare export growth since 1970 with that of our major competitors. The calculations in Table III-8 show that on a volume basis the United States increased its exports from 1970 to 1979 by approximately the same extent (80 percent) as the average of the seven other largest industrialized countries, though not by as much as Japan, France, and Italy. For manufacturing exports, however, U.S. growth was slightly less than the average for the seven countries and far behind the growth of Japan, France and Italy.

These volumes indices may be a more accurate portrayal of U.S. export performance than overall market share data. Part or all of the decline in the U.S. export market share (based on dollar values) in the 1970s may have been due to the appreciation in the exchange rates of some foreign currencies against the dollar and the resulting depressive effect on the value of U.S relative to other country exports in dollar-based international comparisons. However, any attempt to deflate nominal share data depends upon the deflator chosen and the base year used for comparisons.

The experience of the post-war decades and the weight of economic analysis support the view that the narrowing of the gap between our own economic performance and that of other countries was inevitable in the long-term and accelerated by U.S. policies fostering post-war recovery in Europe and Japan

Table III-8

Increase in Volume of Exports
1970-1979

Country	Overall Export Increase (Percent)	Manufacturing Export Increase (Percent)
United States	79	79
France	96	103
Germany	64	63
Italy	95	110*
Netherlands	75	89*
United Kingdom	57	55
Japan	113	122
Canada	57	70
Trade-weighted average increase for the seven major industrial countries other than the U.S.	80	85

Source: Prepared by the Office of the U.S. Trade Representative from International Economic Indicators (Department of Commerce)

*Calculations for manufacturing exports for Italy and the Netherlands were based upon volume indices only through the second quarter of 1979. These were the latest available data in the June issue of International Economic Indicators.

and growth in developing countries. The demonstration effect that the U.S. economy provided to the rest of the world has been strong. The adoption abroad of techniques and technical advances developed in the United States contributed to a rapid increase in productivity abroad. It may well be less socially costly to expand output by adopting known products and processes than by seeking to expand the frontiers of industrial production. Furthermore, our major industrial partners, perhaps because of the dire economic straights and social upheavals that were the legacy of the war, have chosen to devote a higher proportion of their annual output to productive new investment than has the United States. These factors have contributed to slower economic growth in the United States relative to other industrialized countries.

It needs to be pointed out, however, that both the raw export share comparisons and (even more so) the GNP-adjusted share comparisons are subject to index number problems caused by exchange rate adjustments. Neither of these aggregate share comparisons shed much light on U.S. trade performance relative to its major competitors.8/ Comparisons of U.S. export performance in specific commodities and in specific markets provide a much better indication of U.S. export competitiveness. These specific comparisons are considered in Chapter IV section 5.

Tables III-9, III-10, and III-11 show U.S. export performance in manufactures relative to our major competitors in foreign markets. The U.S. share of total developed country imports of manufactured goods declined from 14.1 percent in 1962 to 9.5 percent in 1979, while Japan, West Germany and the European Community increased their shares. (See Table III-9.) The U.S. share of the market for manufactured imports in the LDCs declined from 34 percent in 1962 to 26 percent in 1979, while Japan and West Germany increased their shares. (See Table III-10.) There has been a similar decline in the U.S. share of European Community (EC) imports of manufactures. Part

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8/For example, the GNP-adjusted export share comparison could be interpreted to mean that, between 1960 and 1979, the share of U.S. exports in U.S. GNP rose faster than the share of world exports in world GNP. In other words, trade is becoming increasingly important to the U.S. economy. The fact that the GNP-adjusted U.S. share of world exports had increased may simply be due to the growing interdependence of the U.S. economy with the world economy and need not have any implication for U.S export competitiveness. The exchange rate adjustments are particularly difficult to incorporate because immediately following the depreciation of the dollar all other countries with appreciating currencies had increases in their GNP denominated in dollars, the U.S. share of world GNP in dollars became smaller.

Table III-9

U.S., Japanese, West German, and European Community Shares of Developed Country Imports of Manufactured Goods (percent)

Year	United States	Japan	West Germany	European Community
1962	14.1	2.5	10.8	36.5
1963	13.9	2.4	11.1	37.0
1964	14.0	2.7	10.9	37.0
1965	13.7	3.2	10.9	37.8
1966	13.5	3.4	11.1	37.5
1967	13.8	3.4	11.3	37.1
1968	13.4	3.9	11.6	37.5
1969	13.2	4.1	11.9	38.5
1970	12.9	4.5	12.2	38.9
1971	11.8	5.1	12.5	40.0
1972	11.2	5.3	12.5	40.9
1973	11.3	4.5	13.0	40.9
1974	10.6	4.4	11.5	36.2
1975	10.8	3.9	11.0	36.7
1976	10.2	4.6	11.1	36.0
1977	9.5	4.9	11.4	36.9
1978	9.5	5.1	11.9	38.6
1979	9.5	4.2	11.5	38.6

Source: U.S. Department of Commerce

(Developed country imports from the world are used as a proxy for world exports to developed countries.)

Table III-10

U.S., Japanese, West German, and European Community Shares of Total Less Developed Country Imports of Manufactured Goods from the Developed Countries (percent)

Year	United States	Japan	West Germany	European Community
1962	34.0	9.9	9.8	45.2
1963	33.9	10.8	9.5	44.2
1964	34.2	11.6	9.5	43.1
1965	32.0	13.3	10.0	43.2
1966	32.1	13.4	10.0	41.6
1967	31.2	14.2	10.3	41.0
1968	30.6	15.5	10.2	40.7
1969	28.5	16.9	10.3	41.0
1970	28.8	17.1	10.6	40.4
1971	26.4	19.1	10.8	41.1
1972	25.7	19.6	10.7	41.1
1973	26.8	20.3	11.5	39.5
1974	27.2	21.1	12.0	38.4
1975	27.7	19.4	11.7	41.0
1976	27.1	20.4	12.2	40.3
1977	24.6	21.0	12.6	42.4
1978	24.9	21.0	12.2	42.0
1979	26.1	19.0	11.3	41.8

Source: U.S. Department of Commerce

(Developed country exports to the less developed countries (LDCs) are used as a proxy for total LDC imports.)

Table III-11

U.S., Japanese and West German Shares of Total European Community Imports of Manufactured Goods from the World (percent)

Year	United States	Japan	West Germany
1962	11.4	1.0	10.6
1963	11.0	0.9	11.3
1964	10.9	1.0	11.1
1965	10.4	1.1	11.1
1966	10.1	1.2	11.7
1967	10.2	1.2	12.4
1968	10.0	1.3	12.9
1969	9.6	1.4	13.4
1970	9.7	1.6	13.6
1971	8.6	1.8	14.0
1972	7.7	2.2	14.2
1973	7.8	2.0	14.7
1974	7.5	2.0	13.6
1975	7.6	1.9	13.1
1976	7.4	2.1	13.6
1977	6.8	2.3	13.7
1978	7.0	2.4	14.2
1979	7.1	2.1	13.8

Source: U.S. Department of Commerce

(Compiled from the IMF publication, Direction of Trade. As defined by the IMF, the world includes all 153 countries.)

of the fall in the U.S. share of the EC market is due to the process of European economic integration which has caused an increase in intra-European trade. However, Japan was able to increase its share of the EC market, at the same time that the U.S. share declined. (See Table III-11.)

Table III-1 showed that imports are playing an increasingly important role in the U.S. economy. In part, this increase has been due to the rapid increase in U.S. imports from the less developed countries (LDCs), particularly in manufactures.9/ The non-oil LDCs have increased their share of total U.S. manufactured imports from 13.7 percent in 1970 to over 25 percent in 1979. (See Table III-12).

Figure III-1 shows that the LDCs have a larger share of total manufactured imports in the United States than in most of the other developed countries. Only Japan has a larger LDC share of total imports. Figure III-2 shows that after normalizing for market size, LDC exports of manufactures play a much larger role in the U.S. economy than in most developed countries. Table III-13 shows that between 1970 and 1977, the U.S. share of total LDC exports of manufactures increased by 25 percent, while the Italian, French, U.K., and Japanese shares declined.

2.3. Trends in U.S. Trade Balances

Before proceeding to an overview of historical trends in U.S. trade balances, it is useful to consider how the various trade balances are measured. Three frequently used measures of net U.S. trade flows are shown in Table III-14 and graphed in Figure III-3. They are: (1) The merchandise trade balance, which is a narrow measure of the dollar value of the net flow of tangible goods,10/ (2) The balance on goods and

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9/For a more detailed description see, Waters (1979).

10/By convention, exports are usually valued "free along-side ship" (F.a.s.), that is, they are valued in terms of the U.S. price at the point of departure from the United States. American imports are also valued in dollars (converting from the foreign currency price via the exchange rate) at the foreign port of departure. Most other countries value their exports F.a.s. and their imports C.i.f., which includes the cost of insurance and freight for the goods at the port of arrival. The difference between the two systems of valuation is that the U.S. system measures only the value of goods traded, not the value of the goods plus the services associated with delivering them. Measuring exports F.a.s. and imports C.i.f. is tantamount to assuming that the United

Table III-12

Developed and Less Developed Country Shares of U.S. Imports of Manufactured Goods (percent)

Year	Developed Countries	Less Developed Countries
1970	85.8	13.7
1971	86.1	13.4
1972	83.9	15.4
1973	81.3	17.9
1974	79.1	19.7
1975	80.3	18.9
1976	77.5	21.7
1977	77.2	22.0
1978	76.6	22.4
1979	73.1	25.8

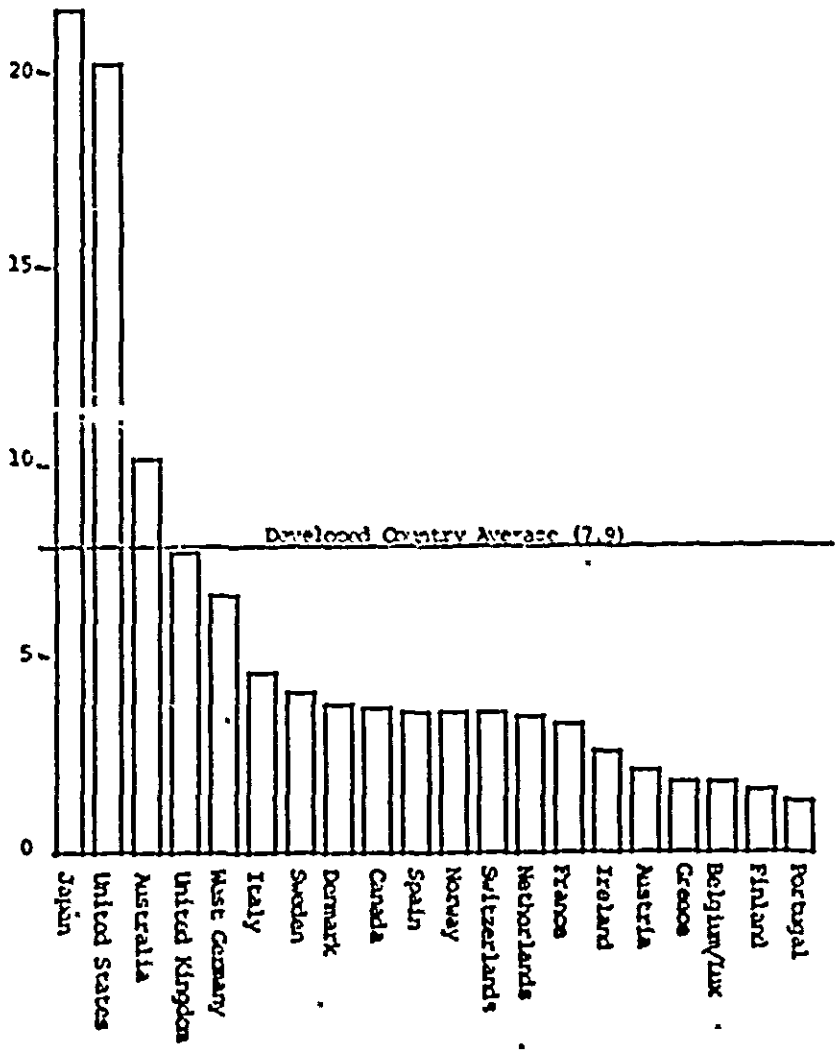
Sources: United States Trade with Major World Areas (U.S. Department of Commerce, Overseas Business Reports, 1977 and 1979).

Prepared by: Office of Foreign Economic Research
U.S. Department of Labor
June 1980

Figure III-1

LDC Penetration in Individual Importing Countries

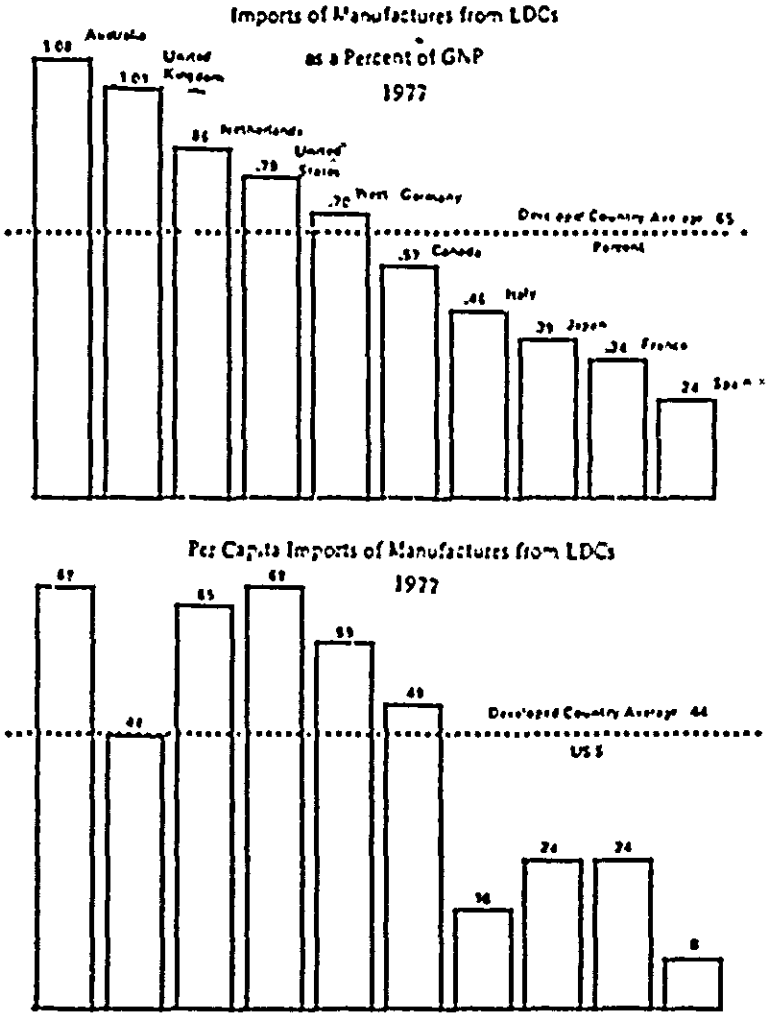
Share of LDCs in Total Manufactures Imports, 1977
(Percent)



SOURCE: J. Waters, "DC Imports from LDCs," C.I.A., 1979.

Figure III-2

Developed Country Imports Relative to Market Size



SOURCE: J. Waters, "DC Imports from LDCs," C.I.A., 1979.

Table III-13

Relative Size of Major Industrial Markets for LDC Exports of Manufactures ($ Billions)

LDC Exports of Manufactures to:	1970		1977	
	$ Million	Percent Share of Total Manufactures Exports by LDCs to Seven Industrial Markets*	$ Million	Percent Share of Total Manufactures Exports by LDCs to Seven Industrial Markets*
United States	3,609	41.3	17,300	50.1
Canada	220	2.5	1,209	3.5
Japan	992	11.4	3,833	11.1
United Kingdom	1,158	13.3	3,372	9.8
France	895	10.3	2,097	6.1
Germany	1,222	14.0	5,161	14.9
Italy	632	7.2	1,569	4.5
Total of the Seven Industrial Markets	8,728	100.0	34,541	100.0

Source: Organization for Economic Cooperation and Development.

*This column shows each importer's share of total LDC manufactured exports to seven industrial markets. For example, in 1970, total LDC exports of manufactures to this market were $8.7 billion of which $3.6 billion, or 41 percent, went to the United States.

Table III-14
U.S. Trade Balances in Merchandise, Goods and Services, and on Current Account
(Billions of Dollars)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979P
1. Exports of Goods and Services	28.9	30.0	31.8	34.2	38.8	41.1	44.6	47.3	52.4	57.5	65.7	68.8	77.2	109.9	146.1	155.7	171.3	183.2	221.0	286.3
2. Merchandise Exports (excl. military)	19.7	20.1	20.8	22.3	25.5	26.5	29.3	30.7	33.6	36.4	42.5	43.1	49.4	71.4	98.3	107.1	114.7	120.6	142.1	182.1
3. Net Unilateral Transfers (excl. military)	-2.3	-2.5	-2.6	-2.8	-2.8	-2.9	-2.9	-3.1	-3.0	-3.0	-3.3	-3.7	-3.9	-3.9	-7.2	-4.6	-5.0	-4.7	-5.1	-5.7
4. Imports of Goods and Services	23.7	23.6	25.8	27.1	29.2	32.8	38.6	41.6	49.8	54.1	60.0	66.5	79.3	99.1	137.2	132.6	161.9	193.7	-229.4	281.0
5. Merchandise Imports (exc. military)	14.8	14.5	16.3	17.1	18.7	21.5	25.5	26.9	33.0	35.8	39.9	45.6	55.8	70.5	103.7	98.0	124.1	151.6	-175.8	211.5
6. Balance on Merchandise Trade (#2 minus # 5)	4.9	5.6	4.5	5.2	6.8	5.0	3.8	3.8	0.6	0.6	2.6	-2.3	-6.4	0.9	-5.3	9.1	-9.4	-31.1	-33.8	-29.5
7. Balance on Goods and Services (# 1 minus # 4)	5.1	6.4	6.0	7.2	9.6	8.3	6.0	5.7	3.6	3.4	5.7	2.3	-2.1	10.8	8.9	23.1	9.4	-10.5	-8.4	5.3
8. Balance on Current Account (# 7 plus # 3)	2.8	3.8	3.4	4.4	6.8	5.4	3.0	2.6	0.6	0.4	2.4	-1.4	-6.0	6.9	1.7	18.5	4.3	-15.2	-13.5	-0.3

P = preliminary

Sources: U.S. Department of Commerce, Survey of Current Business, (June 1978 and March 1980).

services, which is a broader measure including certain services as well as merchandise trade. These services include international travel, insurance, and transportation, as well as payments and receipts of fees and royalties for patents, manufacturing rights, techniques, management, professional and technical services, and income from U.S. assets abroad. (3) The balance on current account, which includes all of the flowsrecorded in the balance in goods and services as well as unilateral transfers. These transfers include official U.S. government foreign assistance, government pensions, and private religious, charitable, educational, scientific and other remittances.

All three balances have macroeconomic significance. The broadest measure, the balance on current account, can be interpreted as the difference between national production and national expenditure. Thus, a surplus on current account means that the nation is producing more than it is spending; a deficit means that expenditure exceeds production.

Figure III-3 shows the various trade balances from 1960 to 1979 and Table III-15 shows the average rates of growth of real GNP in the United States and in our major trading partners during the same period. A comparison of Figure III-3 and Table III-15 reveals the importance of macroeconomic factors in influencing the trade balance. For example, the 1960-1964 period was characterized by relatively slow economic growth and a low rate of inflation in the United States compared to our

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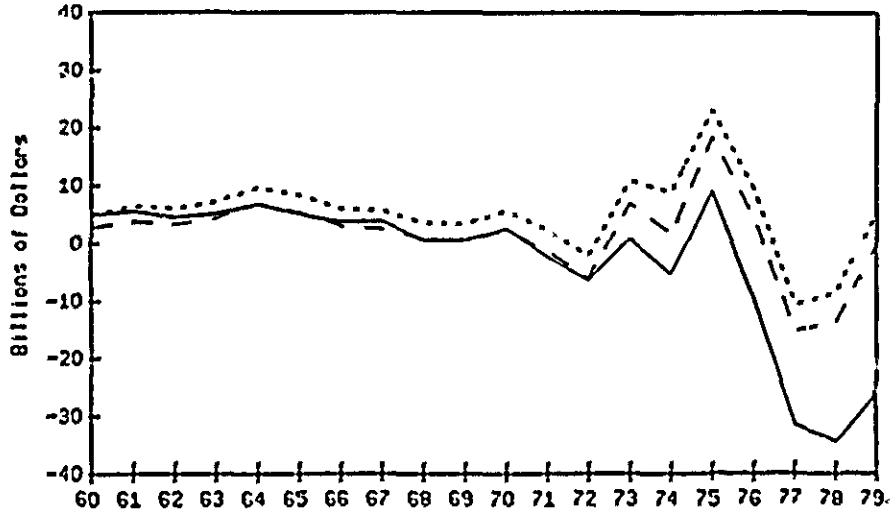
States provides none of the services associated with delivering its exports or imports. Measuring all trade F.a.s. avoids the problem of deciding who (U.S. residents or foreigners) provides these services. To the extent that the services associated with the international transportation of goods cause inflows or outflows of money, they are recorded in the various categories of the goods and services accounts of the U.S. Balance of Payments accounts. For a more detailed description of these accounts consult the Survey of Current Business (July 1978). The Trade Act of 1974 mandates that U.S. imports also be presented C.i.f. in reports to Congress. For balance of payments purposes, the data on imports in Figure III-3 are reported on an F.a.s. basis. Figure III-3A shows the merchandise trade balance on both an F.a.s. and a C.i.f. basis.

Figure III-3

U.S. Trade Balances in
Merchandise, Goods and Services and on Current Account
1960-1979

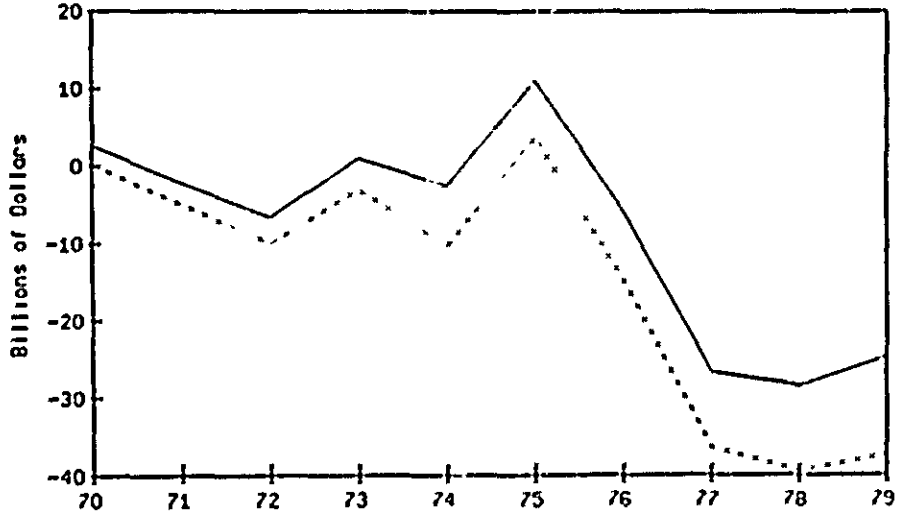


Merchandise Trade (line)
Goods and Services (dot)
Current Account (dash)

Prepared by ILAB/OFER with Commerce Dept. Data

Figure III-3a

U S Merchandise Trade Balance
Fas and Cif
1970 1979



Source: U S Department of Commerce,
International Economic Indicators
(Various issues)

Fas (line)
Cif (dot)

Table III-15
Real GNP Growth Rates
(Annual Percentage Rates)

Year	United States	Six Major Industrial Country Average*
1961	2.0	6.6
1962	6.7	4.9
1963	4.0	5.7
1964	5.5	7.2
Average 1961-64	4.6	6.1
1965	6.3	4.5
1966	6.6	4.7
1967	2.6	5.2
1968	4.6	8.1
Average 1965-68	5.0	5.6
1969	2.8	7.3
1970	0	6.0
1971	3.3	3.2
1972	6.2	6.4
1973	5.9	6.8
1974	-2.2	-0.5
1975	-1.3	-0.4
1976	6.0	5.2
1977	4.9	3.3
1978	3.8	3.8
1979	2.0	4.2

SOURCES: International Economic Report of the President (1975), Economic Report of the President (1979), and World Bank World Tables (1976)

*The six major industrial countries are: Canada, United Kingdom, Germany, Japan, Italy and France. The average is GNP weighted and is based on 1967-69 exchange rates for data until 1974. Post 1974 data are based on 1977 exchange rates.

major trading partners.11/12/ Partly due to these macroeconomic factors the U.S. trade surplus increased during this period and peaked in 1964. The 1965-1969 period was one of more rapid U.S. growth and higher inflation, again relative to our foreign trading partners. These factors caused the trade balance to decline until 1969. The United States entered into a recession in 1969-70. At the same time, most of our trading partners maintained fairly high rates of growth. As a result, the U.S. trade surplus leveled off in 1969 and rose in 1970.

The recession ended by 1971 and real economic growth in the United States picked up while growth in the major industrial countries declined. The U.S. merchandise trade balance went into deficit (as did the balance on current account) for the first time in ninety years. The U.S. deficit put several of the strong European currencies under speculative pressure. These currencies were allowed to float in May 1971 and they appreciated vis-a-vis the dollar. The dollar was formally devalued by about 10 percent in December, 1971.13/

11/It is important to emphasize that both the rate of growth of real income and the propensity to spend extra income on imports exert significant influence on the U.S. trade balance. There is fairly strong empirical evidence, for example, that the U.S. propensity to spend extra income on imports is higher than that of our major trading partners. This implies that even if the U.S. were to grow at the same rate as our trading partners, U.S. imports would grow faster than our exports and the trade balance would tend to deteriorate, holding everything else constant. See Houthakker and Magee, (1969).

12/There are no commonly accepted comparative measures of changes in international competitiveness. The theoretical and empirical problems of constructing such inflation and relative price measures are formidable and so no price indices are presented here. For a comparison of several indices of international price competitiveness, see R. Z. Lawrence, (1978) and (1979). The Bureau of Labor Statistics is conducting research in this area. Advances are being made by BLS, Division of International Price Indexing, at compiling a consistent export price index series at a detailed level, for some of the major countries. See John W. Suomela, (1978).

13/There is evidence which suggests that there were significant changes in the structure of U.S. comparative advantage in the late 1960's or early 1970's. See Stern, Baum and Greene, (1979), for details. See also H. P. Bowen, "Changes in the International Pattern of Factor Abundance

The U.S. economy grew rapidly in 1972 and the trade balance continued to deteriorate. The dollar was devalued again in February 1973. Figure III-4 charts the changes in the nominal effective (trade-weighted) exchange rate between 1971 and 1979. By mid-1973 the cumulative depreciation of the dollar relative to the currencies of the 14 major industrial countries was about 15 percent. The trade balance improved substantially in 1973 in spite of the cumulative effect of the oil price rise and the high rate of U.S. growth.14/

The United States entered a major recession in 1974-75, brought about in part by the oil price increase of 1973. The trade balance deteriorated sharply in 1974 as expenditures on oil imports rose from $8 billion in 1973 to $24 billion in 1974 and U.S. exports failed to rise as rapidly. The recession in 1975 caused the trade balance to improve as U.S. imports fell, while exports rose by almost $10 billion.

The recession ended by early 1976 and the merchandise trade balance fell by $18 billion. The current account and the balance on goods and services remained in surplus, mainly on the strength of U.S. exports of services.

Real growth in both the United States and our major trading partners declined in 1977. However, the decline in growth was more severe abroad, and the growth rate differential actually widened. The U.S. merchandise trade deficit rose to $31 billion, a deterioration of almost $20 billion over 1976. Oil imports continued to grow rapidly (by $9 billion in 1977).

The U.S. economy slowed down again in 1978-1979. The dollar depreciated by about 8 percent vis-a-vis the 14 major

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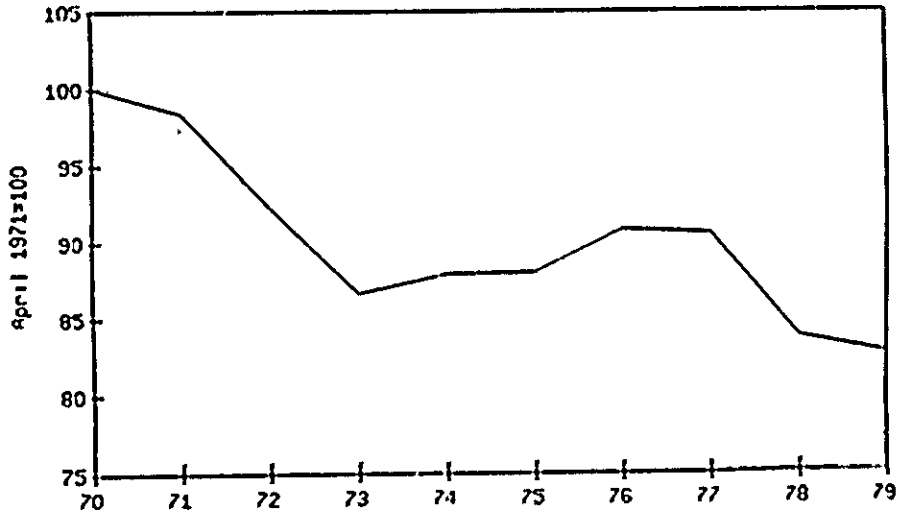
and the Composition of Trade: A Multi-Country Analysis of Changing Compensation Advantages in Manufactured Goods with Special Reference to the United States" and H.P. Bowen and J. Pelzman," A CMS Analysis of U.S. Export Growth," for more evidence on the changing structure of U.S. comparative advantage. Both of these are appended as background analytic papers to this report.

14/The 1973 oil price rise occurred late in the year and therefore had a relatively moderate impact on the trade balance in that year. It is extremely important to emphasize that it is often inappropriate to single out an increase in imports of any single item, in this case oil, and then to attempt to impute part of the change in the trade deficit to the increase in imports of that item. In the discussion which follows it should become clear that an increase in petroleum imports is bound to lead to some increase in U.S. exports to the oil exporting LDCs, although U.S. exports have not tended to increase rapidly enough to offset increased expenditure on oil imports.

Figure III-4

Index of Effective Exchange Rates
(Foreign Currency Costs of U S. Dollars)
1970-1979



Source: U S. Department of Commerce,
International Economic Indicators
(Various Issues)

14 Industrial
Countries (line)

trading countries between January 1977 and December 1978. By 1979 the combined effects of slower growth and the depreciation helped to reduce the trade deficit. Although U.S. exports rose rapidly in 1979, increased expenditure on oil imports prevented much improvement in the merchandise trade account.

Having examined aggregate trends in the various trade accounts, it is useful to decompose the merchandise account into various components and examine U.S. trade performance in manufacturing, agriculture, and petroleum. Figures III-5, III-6, and III-7 show the trends in exports and imports of these commodities and Figure III-8 summarizes trends in the three balances.

Agricultural trade tends to be quite variable over time because domestic and foreign production are heavily dependent on the weather. U.S. agricultural exports and imports both grew fairly steadily from 1960 to 1966. The net export surplus in agriculture peaked at $2.5 billion in 1966. The period 1967-69 was characterized by falling exports and growing imports. Exports began to increase in 1970 and jumped sharply in 1973 and 1974 as a result of greatly increased grain sales to the centrally planned economies. The agricultural trade surplus has averaged over $10 billion per year since 1973 and reached a record level of $16.3 billion in 1979.

For the past two decades the United States has generally maintained a strong surplus in manufactured goods. The trade balance in manufactured goods has tended to reflect changes in GNP growth rates in the United States and abroad. However, U.S. trade performance in manufactured goods was relatively weak in 1977 and 1978. The deterioration in net U.S. manufactured goods exports may be due, at least in part, to the slowdown in economic growth in our major trading partners between 1976 and 1978. World investment was quite weak in this period and consequently demand for capital goods, of which the United States is a major exporter, was also weak.

Another possible explanation for the decline in net U.S. exports of manufactures is that the United States is gradually losing its traditional competitive advantage in this area.[15] The evidence presented in Section 3 of Chapter IV on market shares in manufacturing tends to support the hypothesis of declining U.S. competitiveness in manufactures. The evidence is not conclusive however. The trade balance in manufactures improved significantly in 1979, which suggests

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15/See C.M. Aho and H. Rosen, "Trends in Technology-Intensive Trade," (appended to this report) for a more detailed discussion of this point. Section IV of this Report presents a detailed analysis.

Figure III-5

U S. Agricultural Trade Balance
1960-1979

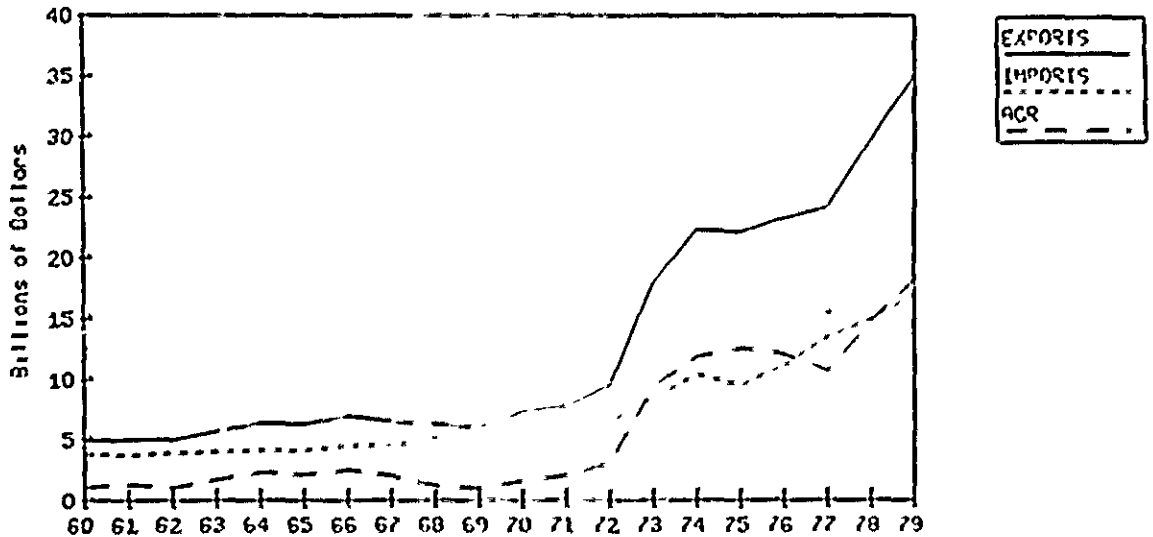

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Figure III-6

U.S. Manufactured Goods Trade Balance
1960-1979

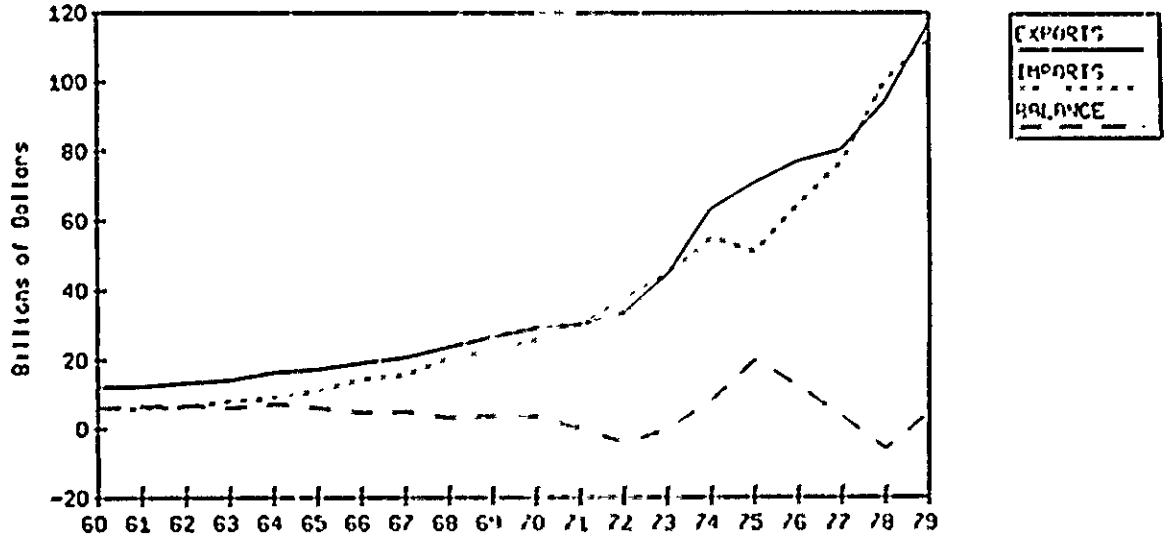

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Figure III-7

U S. Petroleum Trade Balance
1960-1979

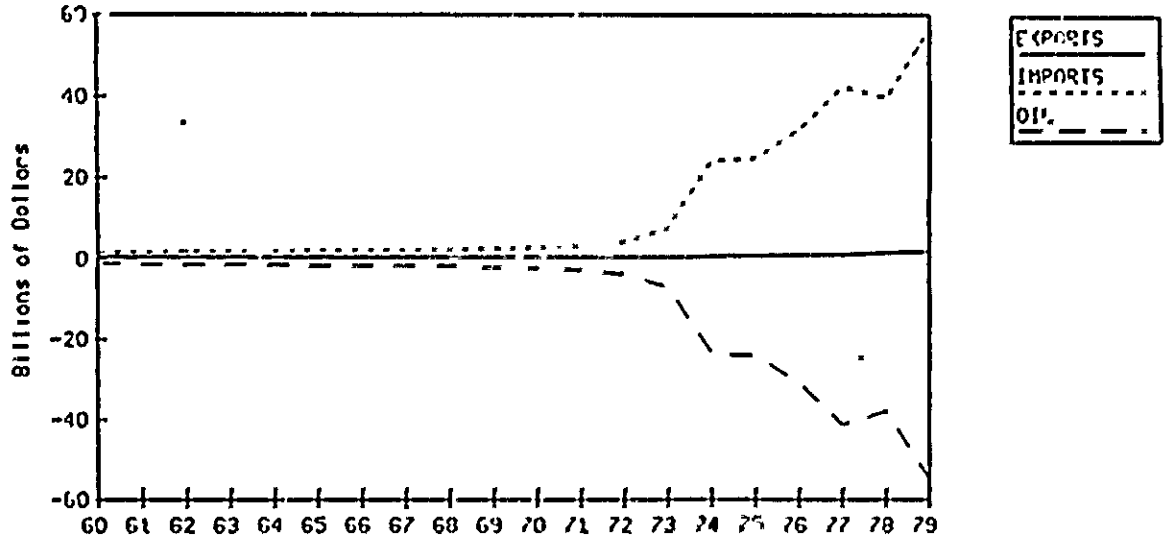

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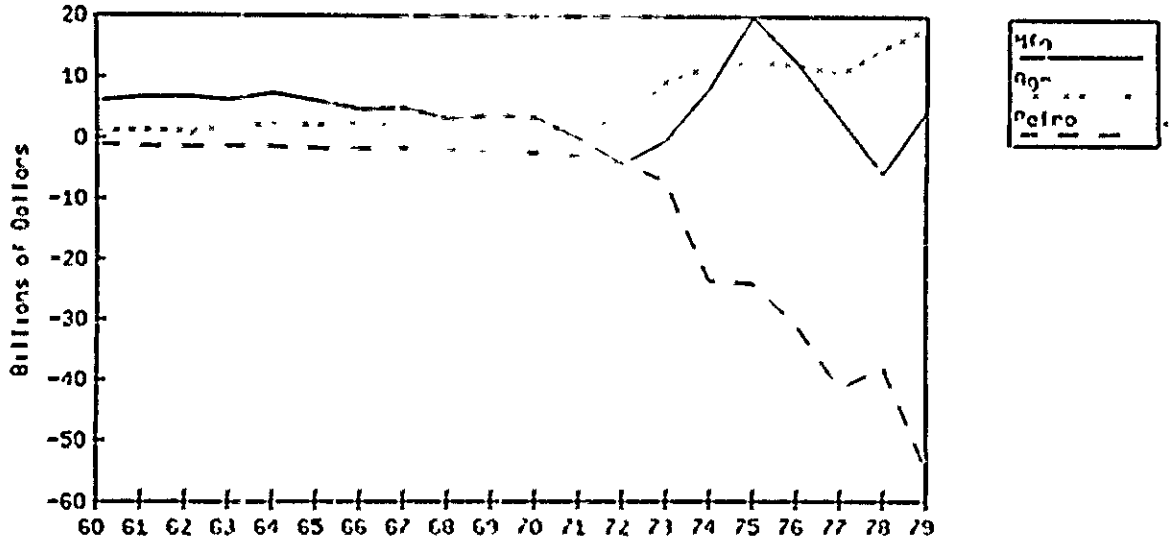
Figure III-8

U S Trade Balances in
Manufactured, Agricultural and Petroleum Products
1960 1979



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that the deterioration in 1976-78 may have been primarily due to cyclical factors. The lagged response of trade flows to the dollar depreciation in 1978-1979 has also contributed to the improved manufactures trade balance in 1979.

It is instructive to decompose U.S. manufactured goods trade into three major sectors: capital goods, consumer goods and automotive vehicles, parts and engines.16/ Trends in these sectors are shown in Figures III-9, III-11, and III-12.

The United States has a strong apparent competitive advantage in capital goods. Figure III-9 shows that the net export surplus in capital goods has increased in almost every year since 1960. Another source of strength in United States trade balance has been trade in technology-intensive commodities. Often capital goods and technology-intensive products overlap like in some electrical equipment industries.

Figure III-10 shows the trade balance in technology and non-technology intensive commodities. This figure shows that the United States has consistently had a trade surplus in high-technology products and a deficit in non-technology intensive products. The definition of R&D intensive manufactured goods in this case is based on the National Science Foundation's definition which includes chemicals, nonelectrical machinery, electrical machinery, aircraft, and professional and scientific instruments. An alternative definition of R&D intensive manufactured goods will be discussed and used in Section 6 of Chapter IV where trends in technology-intensive trade are examined in detail.

In contrast to capital goods, the United States has a long history of deficits in consumer goods and automotive products. The automotive balance first went into deficit in 1968 and the deficit has grown significantly and consistently ever since. Since 1965, U.S.-Canadian automotive trade increased dramatically as the result of the Canadian-American Automotive Agreement of 1965 which lowered or removed tariffs on automotive trade between the two countries. Japan rapidly increased its exports of automotive vehicles to the United States from $248 million in 1968 to $9 billion in 1979. The automotive deficit with Japan has increased substantially since 1973, in part a result of greatly increased American demand for fuel-efficient cars since the oil price rise.

The U.S. deficit in non-automotive consumer goods has also deteriorated since 1960. The deficit grew in the early 1970s

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16/Capital goods are typically machines used in the production of other goods. Consumer goods generally are destined for household use, such as consumption of durables (washing machines, stereo equipment, etc.).

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Figure III-9

U S. Capital Goods Trade Balance
1960-1979

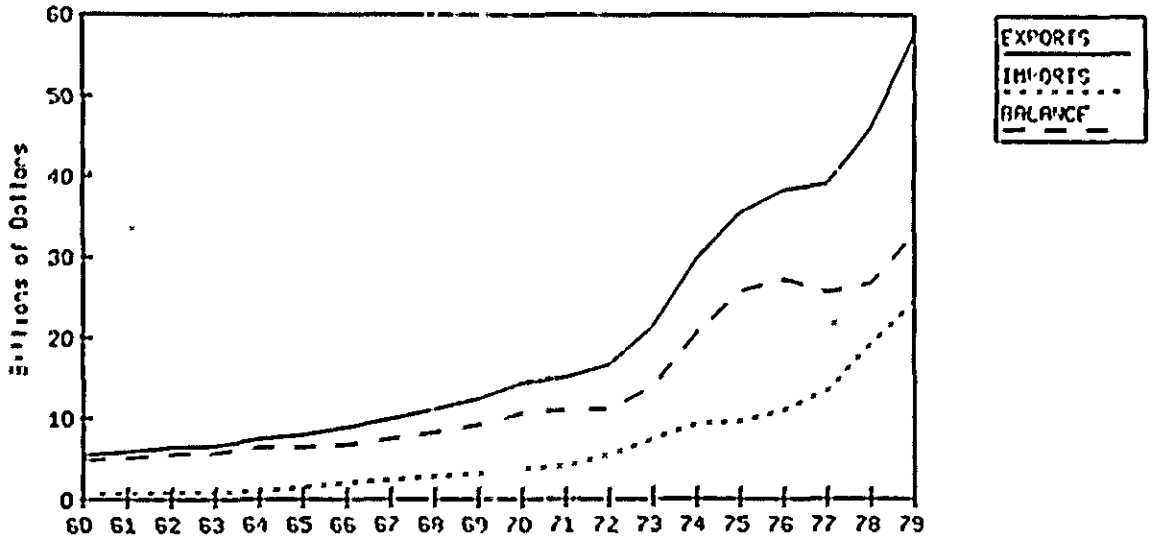

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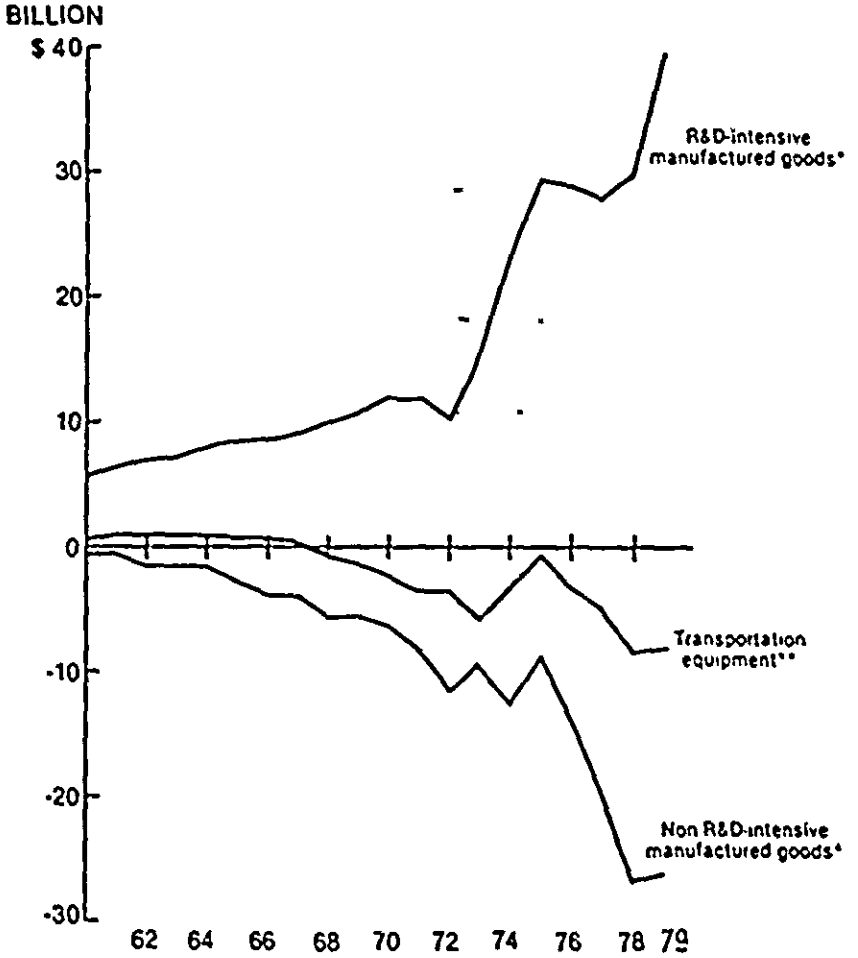
Figure III-10

U.S. trade balances in R&D-intensive manufactured goods, non-R&D-intensive manufactured goods, and transportation equipment



NOTES:

*R&D-intensive manufactured goods include chemicals, nonelectrical machinery, electrical machinery aircraft professional and scientific instruments.

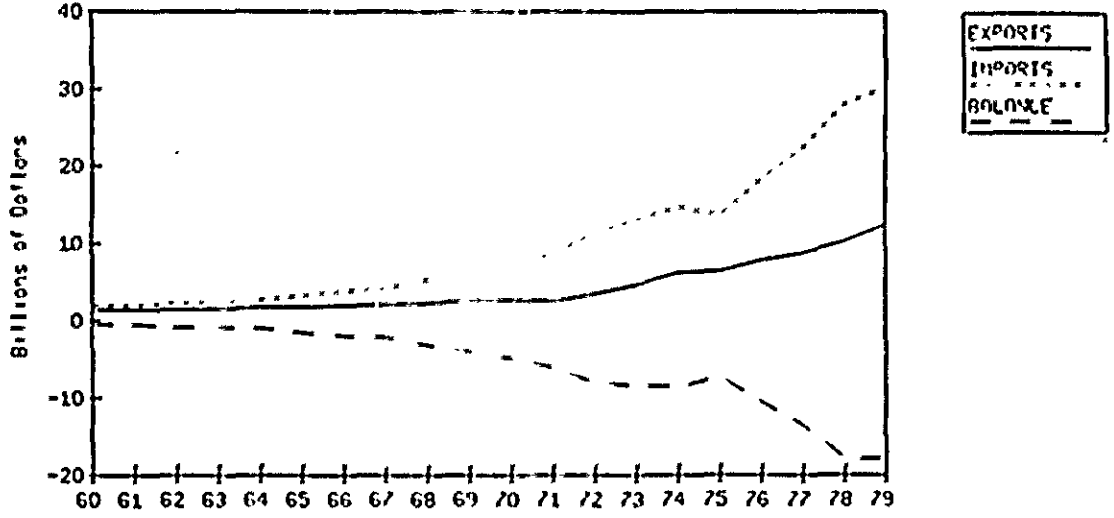
**Transportation equipment refers to motor vehicles and parts

*Non R&D Intensive goods includes food products, metals and fabrication, other manufacturing

SOURCES-*Science Indicators 1978* Department of Commerce Domestic and International Business Administration, *Overseas Business Reports*, August 1967, April 1972, April 1977 June 1978, August 1979, 1979 data preliminary.

Figure III-11

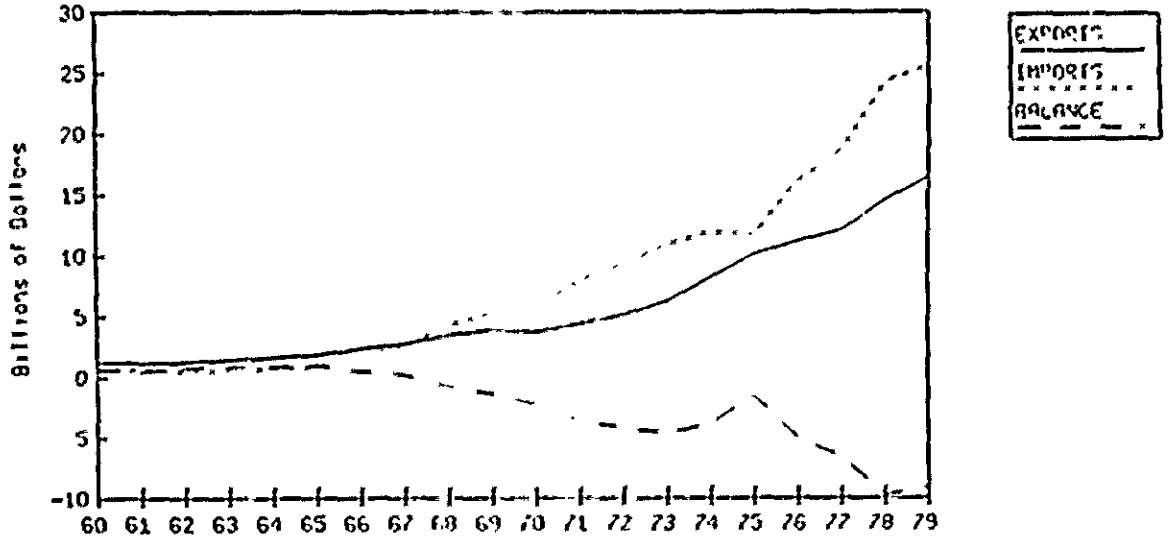
U S Consumer Goods Trade Balance
1960-1979



Prepared by ILAB/OFER with Commerce Department data

Figure III-12

U S. Automotive Trade Balance
1960-1979



Prepared by ILAB/OFER with Commerce Department data

and U.S. imports of consumer goods such as electronic products and clothing increased rapidly. Much of the increase in consumer imports since 1971 has come from Japan and the more developed Asian exporters like Taiwan, Korea, and Hong Kong.

The United States has been a net importer of petroleum and petroleum products over the entire 1960-79 period. The petroleum deficit began to climb in the mid to late 1960s because domestic production began to peak while consumption increased rapidly. Dramatic increases in the deficit occurred after the oil price rise of 1973. The oil deficit rose continuously from $7 billion in 1973 to $41 billion in 1977. The deficit declined to $38 billion in 1978 as domestic production climbed and the rate of increase in consumption began to fall. However, the petroleum deficit jumped to $55 billion in 1979, in large part due to recent OPEC price increases.

2.4. The Country and Regional Composition of U.S. Trade

Most U.S. trade has historically been with the developed countries (DCs). Indeed, all through the 1960s the share of total U.S. trade with the DCs increased steadily. In 1960, about 65 percent of U.S. exports went to developed countries and 60 percent of U.S. imports were purchased from the developed world. By 1971 the DC share of U.S. exports and imports had risen to 69 percent and 74 percent respectively.

Since U.S. trade with the developed industrial countries accounted for the major portion of total U.S. trade, it is not surprising that the trade balance with the developed countries tended to move in tandem with the overall merchandise trade balance in the 1960s and early 1970s. Figure III-13 charts the trend in the U.S. merchandise trade balance with the developed and less developed countries.

In the period since 1971, however, there has been much less regularity in the regional composition of the trade balance. Since 1971, the LDCs as a group, and the oil exporting LDCs in particular, have played an increasingly important role in U.S. trade. In 1972 the LDCs supplied only 26 percent of total U.S. imports. By 1979 the LDC share of U.S. imports had risen to 45 percent.[17]

The LDC share of U.S. exports also rose, from 31 percent in 1972 to 37 percent in 1978. However, almost all of the increased LDC share of U.S. trade since 1972 is accounted for

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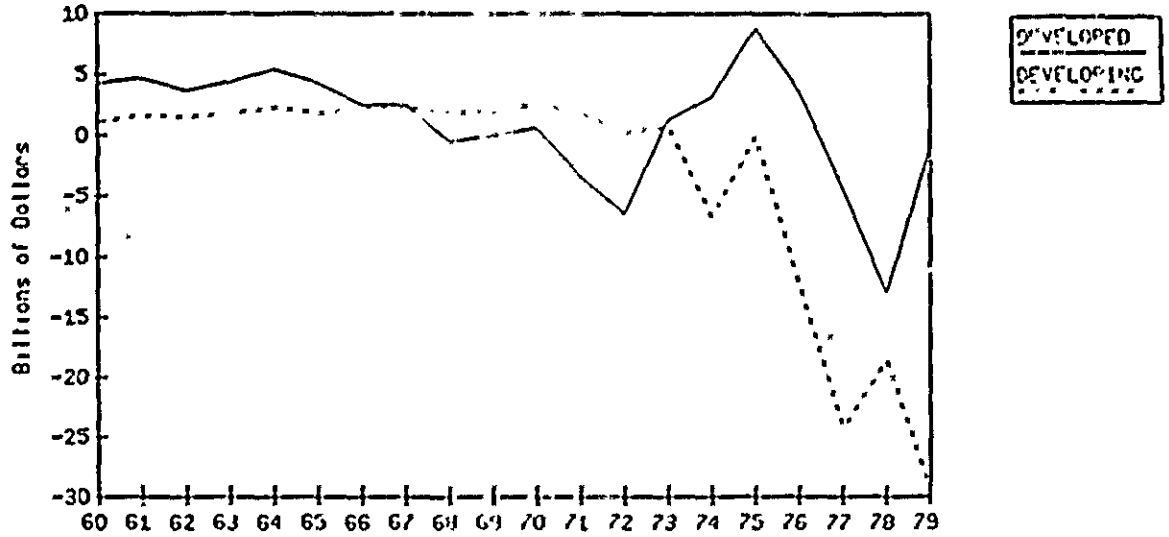
17/For a detailed discussion of U.S. trade with the LDCs, see Central Intelligence Agency (1978).

Figure III-13

U S Trade Balances with
Developed and Developing Countries
1960-1979



Prepared by ILAB/OFER with Commerce Department data

by the growing share of the oil exporting LDCs. These countries bought 8 percent of U.S. exports and provided 8 percent of U.S. imports in 1972. By 1977 the oil exporters' shares of U.S. exports and imports jumped to 14 percent and 26 percent respectively. The non-oil exporting LDC's shares of U.S. exports and imports were virtually unchanged between 1972 and 1979.

The period 1960-73 was characterized by trade surpluses with the LDCs which peaked at $2.6 billion in 1970. Since 1973 the United States has been a net importer from the LDCs. However, until 1977, almost all of the LDC deficit was really a deficit with OPEC and the other oil exporting LDCs alone. The United States maintained a trade surplus with the non-oil LDCs until 1977, when a $2.3 billion non-oil LDC deficit emerged. The deficit widened to $4.3 billion in 1978. The deficit was eliminated in 1979 and the United States ran a small surplus with this group of countries.

At least part of the deterioration in the U.S. trade position with the non-oil LDCs appears to be due to rapid growth in U.S. imports from the more industrialized developing countries, notably Taiwan, Korea, Hong Kong, and Brazil. Figure III-14 shows the trends in the U.S. trade balance with the oil and non-oil exporting less developed countries.

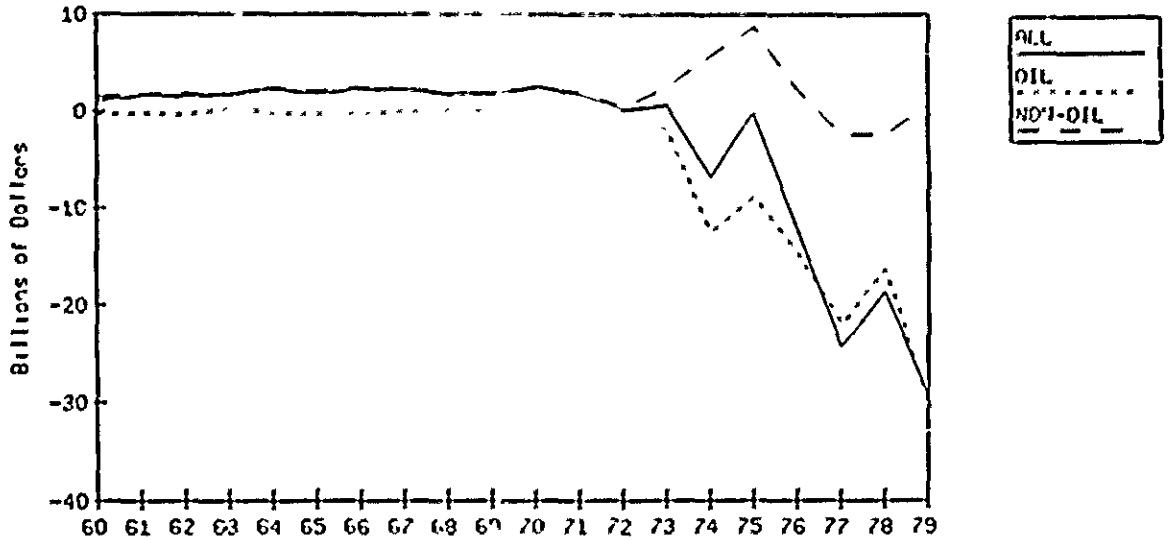
The U.S. trade balance with the oil producers was negligible from 1960 to 1972. The oil price rise in 1973 resulted in a large and rapidly growing deficit with the oil exporters which peaked at $22 billion in 1977. In 1978 the deficit with the oil exporting LDCs declined to about $16 billion. However, in 1979, the deficit jumped to over $30 billion due to substantial increases in oil prices.

The United States maintained a small trade surplus with Japan in the early 1960s. However, by 1965 U.S. imports exceeded exports to Japan by $300 million. The deficit continued to grow until 1972, when it reached $4.1 billion. The dollar depreciations of 1971 and 1973 appear to have helped slow down growth in U.S. imports and increase U.S. exports to Japan between 1973 and 1975. However, by 1976 the deficit began to rise rapidly and it reached about $12.0 billion in 1978. The major increases in U.S. imports from Japan since 1976 have been in automotive and consumer goods and in some industrial supplies such as steel. In the second half of 1978. U.S. imports from Japan began to slow down and exports grew moderately. This trend probably reflects the massive depreciation of the dollar vis-a-vis the yen since mid-1977 (about 35-40 percent). The U.S. deficit with Japan declined to less than $9 billion by 1979.

Canada, our largest single trading partner, accounts for roughly 20 percent of total U.S. imports and exports. As

Figure III-14

U S Trade Balances with
Oil and Non-Oil Exporting Developing Countries
1960-1979



Prepared by ILOB/OFER with Commerce Department data

Figure III-15 shows, the United States maintained small surpluses with Canada until 1968 when a $900 million deficit was recorded. Since 1968 the U.S. deficit with Canada has grown fairly consistently - the only time the deficit declined was in the 1974-75 recession. The deficit with Canada re-emerged in 1976 and reached $5 billion in 1979.

Historically, we have experienced substantial surpluses with the European Community. However, in 1977 the U.S. surplus with the E.C. began to decline. The surplus fell from $7.5 billion in 1976 to $4.4 billion in 1977 and declined again in 1978 to $3.5 billion. The surplus rose to over $9 billion in 1979.

Tables III-16 and III-17 show the country and regional composition of U.S. trade in agricultural and manufactured goods. Table III-16 shows that the U.S. surplus in agricultural goods has been concentrated in the developed countries (especially the E.C. and Japan) and to a lesser extent in the centrally planned economies.

Table III-17 shows that the United States tends to run trade surpluses in manufactured goods with the LDCs (especially the OPEC countries) and trade deficits with the developed countries (except Canada). The U.S. deficit in manufactured goods is concentrated with Japan.

Tables III-18 and III-19 decompose U.S. trade in manufactured goods into capital goods (including trucks and buses) and consumer goods (including automotive vehicles, parts and engines). The U.S. trade surplus in capital goods is concentrated in the less developed countries. The surplus with the developed countries is mainly with the European Community and Canada; the United States runs a capital goods deficit with Japan.

2.5 Summary

This section has attempted to summarize recent trends in U.S. trade. Subsection 2.2 indicated the growing importance of trade to the United States. Subsection 2.3 showed the importance of macroeconomic factors in explaining changes in the trade balance. Subsection 2.4 examined changes in the country composition of U.S. trade. Some preliminary evidence was also presented to support the hypothesis that there have been changes in the structure of U.S. comparative advantage. Chapter IV presents a more sophisticated and detailed analysis of both the structure of U.S. trade and actual U.S. trade performance.

Chapter V presents a detailed analysis of the possible causes of the changes in U.S. trade structure and the decline

Figure III-15

U S Trade Balances with
Canada, Japan and the Common Market
1960-1979

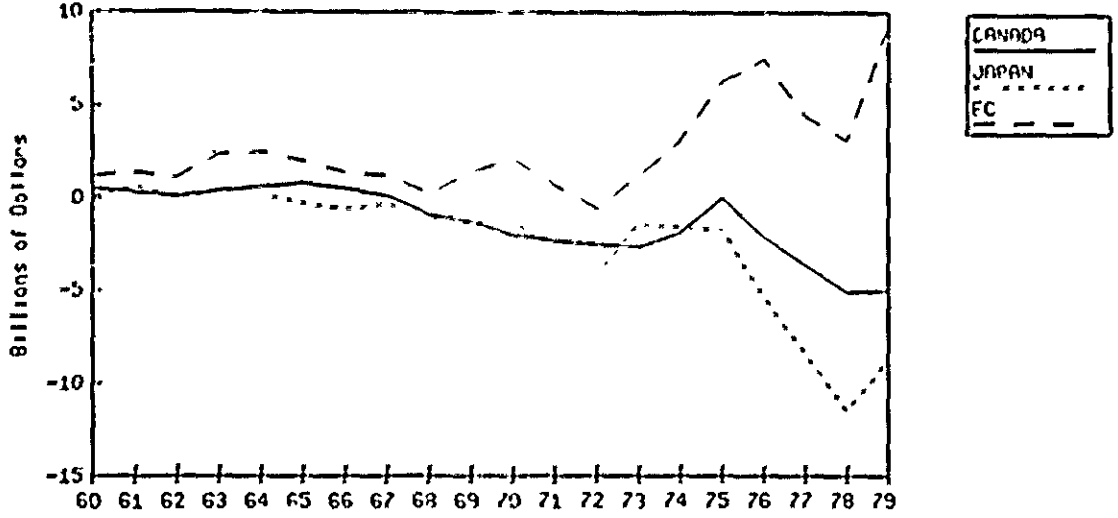


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Table III-16
U.S. Trade in Agricultural Goods: 1970-1979
(F.a.s. Values; Billions of Dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total All Countries										
Exports	7.3	7.7	9.4	17.7	22.0	21.9	23.0	23.7	29.4	34.8
Imports	5.8	5.8	6.5	8.5	10.4	9.5	11.2	13.5	15.0	16.9
Balance	+1.5	+1.9	+2.9	+9.2	+11.6	+12.4	+11.8	+10.2	+14.4	+17.9
Developed Countries										
Exports	4.7	4.9	5.8	9.9	12.2	11.8	13.2	14.0	15.5	17.0
Imports	2.0	1.9	2.4	3.3	3.3	3.1	3.5	3.7	4.8	5.5
Balance	+2.7	+3.0	+3.4	+6.6	+8.9	+8.7	+9.7	+10.3	+10.7	+11.5
Canada										
Exports	0.8	0.8	0.8	1.0	1.3	1.3	1.5	1.6	1.6	1.7
Imports	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.8	1.0
Balance	+0.5	+0.5	+0.4	+0.5	+0.8	+0.8	+0.9	+0.9	+0.8	+0.7
EC										
Exports	2.0	2.4	2.8	4.5	5.5	5.6	6.4	6.6	7.2	7.7
Imports	0.7	0.7	0.8	1.1	1.2	1.1	1.2	1.4	1.9	1.9
Balance	+1.3	+1.7	+2.0	+3.4	+4.3	+4.5	+5.2	+5.2	+5.3	+5.8
Japan										
Exports	1.2	1.1	1.4	3.0	3.5	3.1	3.6	3.9	4.4	5.3
Imports	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Balance	+1.2	+1.1	+1.3	+2.9	+3.4	+3.0	+3.5	+3.8	+4.3	+5.2
Developing Countries										
Exports	2.4	2.6	2.9	5.1	7.8	7.8	7.1	7.7	10.0	12.3
Imports	3.7	3.8	4.0	5.1	7.0	6.2	7.4	9.6	9.8	11.0
Balance	-1.2	-1.2	-1.1	0	+0.8	+1.6	-0.3	-1.9	+0.2	+1.3
Communist Countries										
Exports	0.1	0.2	0.7	2.0	1.5	1.8	2.4	1.6	3.2	5.5
Imports	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4
Balance	0	+0.1	+0.6	+1.9	+1.3	+1.6	+2.1	+1.3	+2.8	+5.1

Sources: U.S. Department of Commerce Overseas Business Reports, United States Trade with Major World Areas, 1977 and 1979. Data for 1979 are from F.T. 990 (December 1979).

Table III-17
U.S. Trade in Manufactured Goods: 1970-1979
(Fas Values: Millions of Dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total All Countries										
U.S. Exports	28.7	29.7	33.2	43.6	62.3	69.3	76.0	78.9	92.0	116.7
U.S. Imports	25.9	30.4	37.8	45.0	55.2	51.1	64.8	77.2	100.4	112.2
Balance	+2.1	-0.7	-4.6	-1.2	+7.1	+8.3	+11.2	+1.7	-8.3	+4.4
Developed Countries										
U.S. Exports	20.0	20.5	23.3	30.3	40.8	42.1	46.3	48.4	55.8	68.4
U.S. Imports	22.2	26.2	31.7	36.6	43.7	41.0	50.2	59.6	76.9	82.0
Balance	-2.2	-5.7	-8.4	-6.3	-2.9	+1.1	-3.9	-11.2	-21.1	-13.6
Canada										
Exports	7.1	8.4	10.1	12.5	16.5	17.9	19.7	20.9	22.8	25.9
Imports	7.3	8.5	9.8	11.1	12.3	12.2	15.7	18.2	21.4	21.3
Balance	-0.2	+0.1	+0.3	+1.4	+4.2	+5.7	+4.0	+2.7	+1.4	+4.6
EC										
Exports	7.4	7.1	7.6	10.1	13.2	13.6	15.1	16.0	20.0	26.2
Imports	7.6	8.8	10.7	13.0	15.7	13.9	14.8	18.1	24.0	27.0
Balance	-0.2	-1.7	-3.1	-2.9	-2.5	-0.3	+0.3	-2.1	-4.0	-3.2
Japan										
Exports	2.0	1.9	2.2	3.1	4.0	3.2	3.7	3.7	4.8	6.0
Imports	5.6	6.9	8.7	9.2	11.9	10.9	15.0	18.1	23.9	25.6
Balance	-3.6	-5.0	-6.5	-6.1	-7.9	-7.7	-11.3	-14.4	-19.1	-19.6
Developing Countries										
U.S. Exports	8.6	9.0	9.7	13.0	20.8	26.1	28.5	29.7	35.2	46.6
U.S. Imports	3.5	4.1	5.8	8.0	10.9	9.6	14.0	17.0	22.5	29.0
Balance	+5.1	+4.9	+3.9	+5.0	+9.9	+16.4	+14.5	+12.7	+12.7	+17.6
Non-OPEC LDCs										
U.S. Exports	7.2	7.3	7.7	10.6	16.5	18.0	18.5	19.1	23.3	35.1
U.S. Imports	3.5	4.1	5.8	8.0	10.8	9.3	13.9	16.8	22.3	28.6
Balance	+3.6	+3.3	+1.9	+2.6	+5.7	+8.7	+4.6	+2.3	+1.1	+6.5
OPEC										
U.S. Exports	1.5	1.7	2.0	2.5	4.3	8.0	9.9	10.6	11.9	11.5
U.S. Imports	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3
Balance	+1.5	+1.7	+1.9	+2.4	+4.2	+7.9	+9.8	+10.4	+11.7	11.2

Sources: Trade data for developed and less developed countries are from United States Trade with Major World Areas (U.S. Department of Commerce: Overseas Business Reports, 1977 and 1979).

Data for OPEC are from F.T. 455 and I.M. 155

Data for 1979 are from F.T. 990 (December 1979).

Table III-18
U.S. Trade in Capital Goods (Including Trucks and Buses): 1970-1979
(F.a.s. Values; Billions of Dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total All Countries										
Exports	14.9	15.7	17.4	22.4	31.3	37.6	40.3	41.4	48.7	60.9
Imports	4.5	4.9	6.7	8.9	10.8	10.9	13.0	16.3	22.9	28.3
Balance	+10.4	+10.8	+10.7	+13.5	+20.5	+26.7	+27.3	+25.1	+25.8	+32.6
Developed Countries										
Exports	10.3	10.7	11.8	14.9	19.9	21.3	21.9	22.6	27.3	33.8
Imports	4.1	4.5	5.9	7.5	8.6	9.0	10.6	13.0	18.6	22.5
Balance	+6.2	+6.2	+5.9	+7.4	+11.3	+12.3	+11.3	+9.6	+8.7	+11.3
Canada										
Exports	2.8	3.1	3.8	4.7	6.1	6.8	7.0	7.2	8.3	10.2
Imports	1.5	1.6	1.9	2.3	2.7	2.6	3.1	3.8	4.7	5.7
Balance	+1.3	+1.5	+1.9	+2.4	+3.4	+4.2	+3.9	+3.4	+3.6	+5.5
EC										
Exports	NA	NA	NA	6.0	7.5	8.0	8.4	9.1	11.7	15.0
Imports	NA	NA	NA	2.9	3.5	3.7	3.8	4.6	6.4	8.0
Balance	NA	NA	NA	+4.1	+4.0	+4.3	+4.6	+4.5	+5.3	+7.0
Japan										
Exports	1.2	1.2	1.3	1.5	2.2	1.7	1.8	1.7	2.4	3.5
Imports	0.7	0.8	1.2	1.7	2.1	1.9	2.8	3.7	6.2	7.2
Balance	+0.5	+0.4	+0.1	-0.2	+0.1	-0.2	-1.0	-2.0	-3.8	-3.7
Developing Countries										
Exports	4.6	5.0	5.5	7.1	11.3	15.4	17.6	17.8	20.7	26.1
Imports	0.4	0.5	0.7	1.4	2.1	1.8	2.4	2.9	4.2	5.7
Balance	+4.2	+4.5	+4.8	+5.7	+9.2	+13.6	+15.2	+14.9	+16.5	+19.4
Communist Countries										
Exports	0.1	0.1	0.1	0.3	0.5	0.9	0.9	0.6	0.7	1.0
Imports	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1
Balance	+0.1	+0.1	+0.1	+0.3	+0.5	+0.8	+0.8	+0.5	+0.6	+0.9

Sources: U.S. Department of Commerce Overseas Business Reports, United States Trade with Major World Areas (1975 and 1979). Data for 1979 are from F.T. 990 (December 1979).

Table III-19
U.S. Trade in Consumer Goods (Including Automobiles and Parts): 1970-1979
(F.a.s. Values; Billions of Dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total All Countries										
Exports	5.8	6.6	7.9	10.2	13.1	14.4	17.2	18.9	22.0	25.6
Imports	12.8	15.7	19.6	22.8	22.3	24.1	32.5	37.8	48.8	55.8
Balance	-7.0	-9.1	-11.7	-12.6	-9.2	-9.7	-15.3	-18.9	-26.8	-30.2
Developed Countries										
Exports	4.3	5.0	6.2	7.9	9.8	10.7	12.6	14.0	15.5	17.6
Imports	10.9	13.3	16.2	18.2	19.5	18.4	23.8	27.9	35.0	39.1
Balance	-6.6	-8.3	-10.0	-10.3	-9.7	-7.7	-11.2	-13.9	-19.5	-21.5
Canada										
Exports	2.8	3.6	4.3	5.2	6.3	7.1	8.4	9.3	10.0	10.5
Imports	3.2	4.1	4.8	5.4	5.6	5.3	7.0	7.9	8.8	10.5
Balance	-0.4	-0.5	-0.5	-0.2	+0.7	+1.8	+1.4	+1.4	+1.2	0
EC										
Exports	NA	NA	NA	1.4	1.7	1.8	2.2	2.5	3.0	4.0
Imports	NA	NA	NA	6.1	6.5	6.0	6.5	7.8	10.4	12.1
Balance	NA	NA	NA	-4.7	-4.8	-4.2	-4.3	-5.3	-7.4	-8.1
Japan										
Exports	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.7	1.0	1.3
Imports	3.2	4.1	5.2	5.2	5.9	5.3	8.4	10.2	13.0	14.9
Balance	-3.0	-3.8	-4.8	-4.7	-7.7	-9.5	-7.7	-9.5	-12.0	-14.6
Developing Countries										
Exports	1.5	1.6	1.8	2.3	3.3	3.8	4.5	5.0	6.5	8.0
Imports	1.8	2.3	3.3	4.5	5.6	5.5	8.3	10.2	13.4	16.1
Balance	-0.3	-0.7	-1.5	-2.2	-2.3	-1.7	-3.8	-5.2	-6.9	-8.1
Communist Countries										
Exports	0	0	0	0	0	0	0	0	0	0
Imports	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.5	0.6
Balance	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.5	-0.6

Sources: U.S. Department of Commerce, Overseas Business Reports, U.S. Foreign Trade with Major World Areas, (1975-1979).

in its world share of exports. Anticipating these results, the analysis in Chapter V suggests that a major reason for the decline in U.S. export market shares is the fact that the United States emerged from World War II with an enormous share of the world's productive resources, especially capital, technology and skilled labor. Since World War II, however, the other major industrial countries (particularly Japan) have accumulated productive resources more rapidily than the United States. More recently, at least since the 1960s, many of the less developed countries have also experienced very rapid growth in their stocks of productive factors.

As a result of these differential rates of factor accumulation, the U.S. share of world resources has declined. Based on the standard theories of comparative advantage, one would predict, and the trade data discussed above help confirm, a concommitant decline in the U.S. share of world exports. The policy implications of the changes in the U.S. export share are considered in Chapter VI.

IV. THE STRUCTURE OF U.S. COMPARATIVE ADVANTAGE: DETAILED COMMODITY REVIEW OF U.S. TRADE PERFORMANCE

OVERVIEW AND SUMMARY

- This chapter examines, at a detailed commodity level, the competitiveness of U.S. producers in world markets. It examines both the short-term, and the more subtle long-term, changes in this competitiveness. A variety of measures and indicators are used to examine and assess changes in competitiveness and the structure of trade.

- 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 analysis of U.S. export market shares for 102 manufactured commodities indicates 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 1970s representing mostly a period of stablization.

- 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.

- Most of the declines in U.S. world market shares for these (and other) manufactured goods in the 1960s were due to a decline in competitiveness. For the 1970s, the analysis indicates that the slower growth in major U.S. export markets was an important factor contributing to slower U.S export growth.

- A comparison is made between the U.S. export performance and that of four major competitors (France, Germany, Japan and the United Kingdom) in common third markets. Of the top seventeen U.S. export commodities, fourteen experienced share losses in the world market between 1962 and 1969, and all seventeen showed losses to these competitors between 1970 and 1977.

- The United States still has a competitive 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

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characterize its comparative advantage. However, there are several indications that the U.S. dominance in trade of high-technology products is being eroded.

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 comparative advantage in technology-intensive products and this implies that competition between the two countries in these products will increase in the future.

U.S. agricultural exports increased rapidly in the last decade as a result of increased world demand. The increased demand was due primarily to: (1) rapid population growth in developing countries, (2) increases in real per capita income in the more developed countries, and (3) foreign consumers upgrading the quality of their diets by consuming more livestock and poultry products.

The United States responded to this demand and increased its world market share. This increase in world market share was due to: (1) the ability of agricultural products of the United States to increase output at a lower cost compared to other grain exporters, (2) the price competitive effects of the depreciation of the dollar relative to the currencies of major importers and, (3) the capacity of the U.S. transportation system and port facilities to deliver large quantities of agricultural products to foreign markets.

The United States has the capacity to further increase its agricultural exports in the future, and with smaller increases in unit costs than many of its competitors. However, the country's future ability to compete may depend on two important factors. First, investments in agricultural research have been lagging in real terms for almost a decade, and have contributed to a recent leveling off of increases in productivity growth. Other countries have substantially increased their investments in agricultural research, and may thereby be able to expand their productivity and reduce future import requirements. Second, the rising price of energy may require increased investment in energy-saving technologies if the United States is not to lose its competitive position relative to countries with less energy-intensive agricultural methods.

IV. THE STRUCTURE OF U.S. COMPARATIVE ADVANTAGE: DETAILED COMMODITY REVIEW OF U.S. TRADE PERFORMANCE

1. INTRODUCTION

This chapter examines, at a detailed commodity level, the competitiveness of U.S. producers in world markets. It examines both the short-term, and the more subtle long-term, changes in this competitiveness.

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

The chapter begins with a brief theoretical explanation of the determinants of U.S. trade performance and competitiveness in world markets. Section 3 then presents an analysis of the performance of U.S. producers in world markets on the basis of world market shares. In addition, the growing importance of trade to the U.S. economy is examined and key export sectors are identified and their trade performance assessed.

Following that detailed review, Section 4 presents the results of a constant market share analysis of the growth in key U.S. exports. The constant market share analysis allows export growth to be decomposed into the part due to the growth in world trade, the part due the commodity composition of U.S. trade and the part due to the market distribution of these exports.

As a check on that analysis, in Section 5, a comparison is made between the export performance of the United States and that of four major competitors (France, Germany, Japan and the United Kingdom) in common third markets. Finally Sections 6 and 7 are devoted to an indepth analysis of two major sources of U.S. export strength: high technology and agricultural products.

2. OVERVIEW OF THEORETICAL EXPLANATIONS OF TRADE STRUCTURE

2.1 The Role of Relative Resource Supplies

The central theory of international trade, the factor abundance theory, postulates that the composition and direction of international trade flows are determined by differences in the relative supply of productive resources (capital, labor, land, etc.) among countries. The linkage between these resource supplies and a country's comparative advantage in producing and exporting particular commodities is dependent upon the intensity of use of each resource in production.

For example, a country with a relative abundance of capital compared to the rest of the world will face a price for the use of capital relative to labor services less than that faced by the rest of the world. Thus, industries whose products employ more capital relative to labor in production (i.e., are capital-intensive) can produce a unit of output of such goods at a lower cost than can the rest of the world. But by the same logic, the rest of the world can produce at a lower cost a unit of output of labor-intensive goods. Consequently, the capital-abundant country will have a comparative advantage in capital-intensive goods and will export these in exchange for labor-intensive goods. Although seemingly simplistic, the logic of this theory is compelling.

A number of studies of the resource determinants of U.S. trade structure have found that the U.S. comparative advantage rests in those commodities whose production is intensive in the use of capital and skilled labor relative to semiskilled and unskilled labor.[1/] Implicit in these findings is the inference that the United States has an abundance of capital and skilled labor relative to the other resources.

Since the relative supply of resources in a country exerts a powerful influence in determining the structure of its trade, changes in a country's supply of resources can be expected to exert pressure to alter the structure of its trade. For example, a country whose availability of capital relative to labor increases faster than that of the rest of the world will be pushed toward greater production, and thereby greater export, of capital-intensive commodities and will correspondingly reduce its production, and increase its imports, of labor-intensive commodities.

1/A detailed review of the theoretical and empirical literature of the determinants of U.S. trade structure is contained in the background paper by Aho and Bowen (1980).

Therefore, changes in the international distribution of resources among countries can be expected to be a major force behind the changes in a country's trade structure over time. The influence of changes in the international distribution of resources has often been overlooked in considering the underlying causes of changing trade patterns since the effect of these changes is thought to occur relatively slowly.

Section 1.1 of Chapter V examines the changes that have occurred in the supply of resources in the United States and other countries since the early 1960s and assesses the impact of these changes on the performance of the United States relative to other countries in international trade. The background paper by Bowen (1980) provides an indepth analysis of these effects.

2.2 Technology as a Determinant of Trade Structure

Although the factor abundance theory constitutes the central explanation of the pattern of international trade flows, it requires that the linkages between resource supplies, the relative utilization of these resources in production, and ultimately product prices, be unbroken. In theory, the complete linkage requires a number of simplifying assumptions.[2/] One of the most important assumptions of the factor abundance theory is that the available production techniques (technology) for producing a commodity are identical across countries[3/]. To the extent that information flows are imperfect, the direct linkage between relative resource

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2/This, however, should not be taken to imply that the relationship between the theory and actual trade flows is invalid since the purpose of a theory is precisely to distill the important underlying variables through simplification. Once the important variables have been identified, the theory can then be expanded by examining the consequences of relaxing one or more of the simplifying assumptions.

3/Another major assumption of trade theory is that traded goods are homogeneous and therefore price is the sole determinant of trade. However, a close examination of trade figures demonstrates that two-way trade or "intra-industry" trade in the same commodity is quite common. For example, in an examination of U.S. trade data, Finger (1975), has determined that about 44 percent of U.S. trade is intra-industry trade. Finger (1975, 1978) argued that while intra-industry trade is an interesting "empirical phenomenon" its measurement presents a fundamental ambiguity arising from the fact that its identification heavily depends upon the degree and the kind of homogeneity of the commodities included in each statistical group.

supplies, factor usage and output prices is weakened. Consequently, the degree of differential information about production techniques across countries can play an important role in determining the structure of a country's comparative advantage.

Technology can also affect trade flows when new products are the result of technological effort. If a new product is developed and produced in a country for some period of time, that country has an advantage over other countries in production and export.

A number of studies of U.S. trade have found that proxies for differences in knowledge provide a significant explanation of the structure of U.S. trade. Examples of these proxies are research and development expenditures (R&D) and the percentage of scientists and engineers employed in an industry. These proxies could represent two different, though related, hypotheses. The first is that "knowledge" is an input into the production process, just like capital or any other input. If so, then technology (knowledge) as a determinant of trade structure is not in conflict with the factor abundance theory, but rather requires only that one account for this resource when considering a country's resource availability. For example, the United States, until recently, devoted more of its national income to research and development than other countries. It follows that the United States would have an advantage in the production of commodities which intensively use research and development. In fact, all of the past studies have shown that the United States has had a comparative advantage in the production of technology-intensive products.

The second view is that proxies such as R&D expenditures indicate that there are differences in the availability of productive techniques across countries.[4/] To the extent that an industry in a particular country is able, by investing resources toward the development of new or improved methods of production, to be the sole user of a process which reduces its costs below those of its competitors it will, by definition, have a relative advantage. In this case, it is the gap in knowledge or information about technical opportunities which determines a country's trade structure. Of course, the cost advantages brought about by the latter effect can be expected to be maintained only until the same industry in another country can acquire the knowledge.

The speed with which technological information is transmitted between countries is critical. Interestingly, Tilton (1970) found that the average lag time for the spread of

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4/They may also represent the development of new or improved products as opposed to production processes.

information concerning semiconductors was less than two years among the advanced countries. Given that such technological advantages are often short-lived, it is not uncommon to observe rapid changes in trade among countries in particular products until a time when the possibilities for further innovations have been exhausted.

To the extent that the findings of past studies of U.S. trade structure indicate that it has a knowledge advantage in developing cost-reducing innovations, it would be expected that a decline in investment in such research activities could have an adverse impact on U.S. competitiveness and the structure of its trade. Section 2 of chapter V examines the changes in indicators of investment in research activity by the United States and other countries. The changes in the structure of trade in technology-intensive industries are examined in section 6 of this chapter. The background paper by Aho and Rosen (1980) contains a complete discussion.

3. THE COMPOSITION AND CHANGES IN THE COMPOSITION OF U.S. TRADE

3.1 Introduction

This section examines the performance of the United States in international markets at a detailed commodity level in manufactured goods over the period from 1962 to 1977. In addition to reviewing past performance in key U.S. manufacturing export sectors, the analysis examines and compares the shifts that have occurred in the composition of U.S. trade with that of other countries. The analysis also identifies those sectors in which the United States has performed well in international markets and those in which it has lost ground.

A number of measures of relative performance in international markets are used to assess the changes in a country's position in world trade. Among these are the share of each commodity in a country's total manufacturing exports, its world export market shares, net exports, the ratio of net exports to domestic shipments, import penetration ratios and measures of revealed comparative advantage. Each measure provides a glimpse into different aspects of international competition. No one measure is perfectly correct although, theoretically, net exports provides the most appropriate indication of a country's relative international performance. Since no one measure is singularly the best, a menu of indicators is presented. However, an attempt is made to obtain a consistent set of results concerning U.S. trade performance based on all of the indicators. For a complete discussion of each of the performance indicators used here, as well as an indepth analysis of the consistency among these indicators, see the background paper by Aho, Bowen and Pelzman (1980).

The analysis in this section is focused primarily on the changes in performance among countries in manufactured goods since it is in these goods that the United States has faced the most competition. A complete review of U.S. agricultural trade performance is provided in section 7 of this chapter.

3.2 Detailed Analysis of U.S. Trade Performance

3.2.1 World Export Market Shares[5]

A common indicator of a country's relative performance, or competitiveness, in world trade is given by the changes in its share of world exports for a particular commodity compared to the changes in the shares of other countries. Table IV-1 summarizes the movements in the U.S. world market share in twenty manufacturing commodity classes. For comparison, the corresponding movements in the world shares of each of twelve other industrial countries are shown. These twenty commodities include the ten in which the United States had the largest percentage increase in share and the ten in which it had the largest percentage decrease. The background paper by Bowen and Pelzman (1980) has a similar table for all of the 102 manufacturing categories classified according to the three-digit level of the Standard International Trade Classification (SITC). A complete list of these categories and their codes is given in Table B-1 in Appendix B.

The numbers reported in Table IV-1 are the annual trend percentage changes in each country's world market share of a commodity. The calculation of percentage changes allows the growth in market shares for each commodity to be compared across countries.[6]

The commodities in both sections of Table IV-1 are listed in descending order of U.S. performance. For example, the commodity group in which the United States suffered the greatest percentage decline in its world share was miscellaneous manufactures (SITC 899), falling by over 14 percent per year. Japan, however, had a trend increase in its market share of by 3.3 percent per year whereas the Netherlands was the principal gainer in this commodity group with a trend increase of over 10 percent per year. The commodity group in

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[5]This section is a condensation of the material presented in Bowen and Pelzman (1980) which is contained in this report as a background paper.

[6]The annual trend percentage changes are calculated from a trend regression of the export share. The trend coefficient was normalized by the average share to get percentage changes.

Table IV-1

AVERAGE ANNUAL PERCENTAGE CHANGES
IN WORLD EXPORT MARKET SHARES

SITC	UNITED STATES	JAPAN	WEST GERMANY	UNITED KINGDOM	CANADA	BELGIUM LUXEMBOURG	DENMARK	FRANCE	IRELAND	ITALY	NETHERLANDS	SWEDEN	SWITZERLAND
Top Ten													
685	2.37	9.11	3.94	2.61	-4.48	-5.13	-1.19	-0.26	7.20	11.73*	2.30	4.15	7.61
894	2.63	-5.19	-0.02	-0.24	2.61	2.61	0.17	3.43	3.95*	4.52	2.78	3.00	3.16
652	2.78	-7.41	5.[illegible]3	-4.25	-0.27	-0.04	9.89*	1.32	6.66	6.75	-0.20	4.72	3.91
683	2.87	20.67	7.[illegible]1	-0.40	-2.48	14.38	6.98	1.45	26.13*	1.70	10.68	6.46	5.47
621	2.91	-1.41	-2.99	-3.77	0.65	7.79	-4.56	2.23	16.15*	4.05	1.34	1.88	-4.34
681	5.09	14.04	-4.81	-2.43	-4.21	2.33	9.79	3.11	22.73*	-0.11	2.87	6.35	13.74
896	5.36	5.26	-0.23	0.99	6.21*	-4.53	2.01	-7.60	-6.59	-8.20	-4.01	-4.82	3.29
657	6.73	-10.84	2.52	-0.52	0.85	0.99	7.48*	-9.54	5.65	-5.92	0.14	-0.35	7.25
864	8.45	13.75	-2.06	2.51	-1.89	6.26	5.17	4.17	22.65*	4.62	7.80	4.05	-3.47
631	11.43	-10.15	1.28	3.25	-5.91	4.1[illegible]	-3.87	-0.62	-3.60	-0.63	4.56	7.45	0.76
Bottom Ten													
899	-14.44**	3.97	3.21	1.92	5.08	3.10	6.64	6.40	4.83	0.58	10.38	3.23	8.74
686	-10.97	4.83	6.16	-2.05	-1.65	-3.17	-17.50**	7.11	25.45	19.86	7.51	7.00	-4.92
674	-8.61	5.48	1.39	-9.55**	-2.45	0.05	0.90	-3.57	9.21	0.53	-2.12	1.18	12.27
672	-7.75	10.73	-4.45	-2.09	-15.33**	-1.46	2.45	-0.36	-11.04	6.43	2.11	-4.66	12.59
629	-7.68	3.25	3.60	-4.50	5.52	3.15	-0.38	1.90	14.61	1.36	-1.01	-2.76	-2.09
688	-7.54	-3.19	16.11	-3.77	—	-28.72**	21.18	11.53	—	.56	7.06	-14.64	16.61
682	-7.45**	11.83	1.77	-2.97	-0.44	0.33	6.61	4.37	8.53	3.33	8.58	-0.26	1.69
821	-6.92**	-4.45	1.95	-4.15	2.92	1.56	-5.01	-2.22	4.54	5.95	-2.17	2.44	3.11
692	-6.91**	6.03	-0.06	-1.55	-0.01	5.24	2.54	0.99	8.28	-1.35	3.85	-0.37	5.38
613	-6.66	1.99	5.63	1.79	-8.19**	2.95	1.53	-1.67	14.03	-6.93	1.25	2.56	0.12
Percentage of 102 Commodities Which Declined	71	26	24	76	51	32	29	26	24	24	29	28	21

* Indicates country with the biggest increase.
**Indicates country with the biggest decline.

Source: Derived from Table 2 in Bowen and Pelzman (1980).

which the U.S. world share grew most rapidly was plywood (SITC 631), rising by 9.5 percent per year.

When these annual changes were examined across all 102 manufacturing commodities, the most striking fact was the almost pervasive decline in U.S. market shares. As a way of summarizing this information, the last row in Table IV-1 shows the percentage of the 102 commodity groups in which each country experienced a trend decline. The United States experienced declines in 71 percent of these commodities whereas Japan registered declines in only 28 percent. Although this indication of a broad-based decline in market shares is influenced by the length of time considered, the more detailed analysis of selected subperiods presented in the background paper by Bowen and Pelzman (1980) generally supports these trends. Note that the trends in the U.S. shares, and the indication of a broad-based decline, are disturbingly similar to those of the United Kingdom.

3.2.2 Important U.S. Export Categories

The above suggests that the United States has undergone a comprehensive decline in its world export market shares. Whereas overall trends are revealing, it is of particular interest to examine the changes that have occurred in the commodities that account for the greatest percentage of U.S. export earnings. Not only is an analysis of these commodities important due to their role as indicators of U.S. comparative advantage, but their weight in determining the overall value of export earnings is relevant for understanding movements in the overall trade balance (given a level of imports).

Table IV-2 presents the top twenty manufacturing commodity groups in which the U.S. earned a major portion (over 70 percent) of its export earnings in 1963 and provides summary statistics of their performance over the 1963-1977 period. In terms of manufactured goods, Table IV-2 shows that the composition of U.S. exports is skewed primarily toward capital goods, chemicals and certain forest products. Although these twenty commodities have been chosen on the basis of their 1963 share of U.S. manufacturing exports, few changes in this list have taken place (although there have been some changes in ranking). On the basis of their 1977 share of U.S. exports, the starred SITC commodity classes in Table IV-2 would not be included among the top twenty in 1977 and would instead be replaced by SITCs 862, 698 and 561. The relevant information on these latter commodity groups is shown at the bottom of the table.

Along with the information on the share of each commodity in U.S. manufacturing exports in 1963, 1973 and 1977, two measures of U.S. relative competitiveness in each of these

Table IV-2

Market Performance Summary of Top Twenty
1963 U.S. Export Earners in Manufacturing

SITC	Description	(1) Share of U.S. manufacturing exports 1963	(2) 1973	(3) 1977	(4) World market share 1963	(5) 1973	(6) 1977	(7) Annual percentage trend change in world market share** 1962-1977	(8) Net exports (bil. of current U.S. $) 1963	(9) 1973	(10) 1977	(11) Annual trend change in net exports 1962-1977
732	Road motor vehicles	9.99	13.48	14.66	22.10	16.20	15.60	-2.63	0.008	-.402	-5.733	-.277
719	Machinery (other than electric)	9.99	9.56	10.42	28.30	19.90	19.60	-2.73	1.312	2.863	5.718	.121
734	Aircraft	7.49	9.21	9.29	60.16	67.86	60.48	0.81	0.993	3.556	5.261	.163
718	Machines for special industries	4.49	3.73	4.42	33.74	25.40	25.74	-1.70	0.600	1.317	2.367	.068
712	Agricultural machinery	4.18	2.21	2.33	40.14	27.24	25.53	-3.06	0.434	0.496	0.941	.007
*899	Manufactured article, nes	3.61	2.28	0.16	66.88	9.50	9.80	-14.44	0.421	-0.266	-0.295	-.034
729	Other electrical machinery	3.59	5.49	5.71	29.54	26.51	25.71	-0.86	0.381	0.996	1.795	.042
599	Chemical material, nes	3.45	1.72	1.90	42.73	20.07	20.49	-5.71	0.466	0.594	1.170	.008
724	Telecommunication apparatus	3.27	2.33	2.64	26.60	13.30	13.30	-5.24	0.262	-1.029	-1.624	-.076
711	Power generating machinery	2.65	4.96	4.50	22.40	28.00	23.60	0.01	0.336	0.741	1.372	.033
715	Metalworking machinery	2.56	1.09	0.91	27.00	13.20	11.40	-6.26	0.325	0.300	0.289	-.011
714	Office machines	2.49	4.66	4.53	35.51	31.25	33.31	-0.60	0.265	1.170	2.055	.057
861	Scientific, medical controlling instruments	2.40	2.72	2.78	25.50	21.40	20.30	-2.22	0.232	0.541	0.911	.023
581	Plastic materials	2.14	2.30	2.15	25.20	13.70	12.30	-6.04	0.294	0.820	1.332	.027
512	Organic chemicals	2.07	2.07	3.99	21.10	20.20	14.70	-3.77	0.205	0.874	1.692	.041
722	Electric power machinery	2.02	2.38	2.86	22.00	19.00	19.00	-1.65	0.270	0.605	1.327	.027
541	Medicinal and pharmaceutical products	1.86	1.40	1.34	26.10	15.10	15.00	-4.26	0.221	0.459	0.761	.012
641	Paper and paperboard	1.67	1.65	1.44	14.20	13.80	12.90	0.22	-0.506	-.646	-1.110	.012
*674	Universals, plates & sheets of iron & steel	1.47	0.93	0.30	10.80	4.70	2.30	-8.61	0.075	-0.948	-2.558	-.087
*682	Copper	1.42	0.90	0.25	17.90	11.20	5.10	-7.45	0.088	0.294	-0.664	-.014
Additions to top twenty export earners in 1977												
862	Photographic Supplies			1.01	28.60	28.20	27.47	0.49	0.232	0.282	0.521	.015
698	Manufactures of Metal, nes			0.92	21.80	14.30	14.90	-3.41	0.046	-0.048	-0.010	-.005
561	Fertilizers, manufactured			0.87	14.10	21.10	22.23	2.08	0.008	0.126	-0.011	.005

* Not among 1977 top twenty export earners.

**Note that whereas the trade performance summary indicators in column 7 can be compared across commodity categories, those presented in column 11 can not.

Source: Bowen and Pelzman (1980).

commodity categories is shown. Columns 4-7 present information on the movements in the U.S. world market share whereas columns 8-11 provide data on U.S. net exports.

Almost all of these key export sectors showed declines in their world market shares. Further, in almost all of the cases in which these declines were large, the U.S. position turned from that of a net exporter to a net importer (or at least showed a declining trend in net exports). The more important sectors in this regard are telecommunications apparatus (SITC 724), metalworking machinery (SITC 715), road motor vehicles (SITC 732), universals, plates and sheets of iron and steel (SITC 674) and miscellaneous manufactures (SITC 899).

These changes in world market shares can have a significant impact on export earnings because of their importance in U.S. exports. As an extreme example, if the United States had maintained its 1963 share of the world market in road motor vehicles (SITC 732) this commodity class would have contributed an additional $16 billion in export earnings in 1977. Although such a calculation likely overstates the actual earnings that would have been generated, it nonetheless underscores the fact that changes in the world market shares of these major commodity groups can, both individually and collectively, have a substantial impact on the total value of U.S. exports.

In terms of the average growth in market share, the complete listing in Bowen and Pelzman (1980, Table 2) indicates that the countries which had the largest gain in each of the top five U.S. export earners were: Japan, Ireland and Canada in road motor vehicles (SITC 732); Japan and Ireland in nonelectrical machinery (SITC 719); Sweden and Germany, both of which outpaced the gain by the United States in aircraft (SITC 734); Ireland, Belgium-Luxembourg, Japan and the Netherlands in machines for special industries (SITC 718); and Japan, France, the Netherlands, Italy and Belgium-Luxembourg in agricultural machinery and implements (SITC 712). It is noteworthy that in four of these important U.S. export categories, Japan stands out as the major U.S. competitor.

One additional piece of information suggested by the analysis of world export shares by Bowen and Pelzman (1980) is that the major declines in U.S. export performance occurred during the period from the early 1960s to the early 1970s and that in most cases, the market share between 1973 and 1977 remained relatively stable. This suggests that a generally adverse trend in U.S. competitiveness during the 1960s and on into the early 1970s has since leveled off. This could reflect the substantial depreciation of the dollar in the early 1970s, and would be consistent with the almost uniform behavior of U.S. export performance across commodities. Whereas the realignment of the U.S. exchange rate to correct the overvaluation of the dollar probably helped U.S.

competitiveness, overvaluation alone cannot explain the significant trend declines noted since the early 1960s. Those declines probably also reflect the increase in the export capacity of our major competitors.

3.3 The Growing Relative Importance of International Trade in The U.S. Economy

The increased competition to the United States in manufactured goods seen above is, in part, an indication of the growing interdependence of world markets and thus the growing importance of international trade in the U.S. economy. Section 2.2 of Chapter III briefly examined data indicating the growing importance of international trade to the U.S. economy. Below, this growing interdependence is considered in more detail.

General indicators of the relative magnitude of trade in the overall economy are the ratios of exports and imports to GNP. For the United States, the ratio of exports to GNP increased from 4.3 percent to 6.3 percent over the 1970-77 period. This represents an average rate of growth of 5.8 percent per year. For Germany and Japan, however, this ratio increased at a much slower rate. For Germany, the ratio of exports to GNP rose from 18.4 to 22.9 percent or at an average annual growth of 3 percent per year over the 1970-77 period. Japan's ratio of exports to GNP rose from 9.5 percent to 11.6 percent or at an average annual rate of growth of 2.7 percent over the same period.

A similar pattern occurred on the import side. In the United States the ratio of imports to GNP nearly doubled, rising from 4.3 percent in 1970 to 8.3 percent in 1977. This represents an average annual increase of 11.6 percent per year. In Germany the ratio of imports to GNP rose modestly from 16.1 percent in 1970 to 19.8 percent in 1977. This represents an average annual rate of growth of less than 3 percent per year. For Japan, the ratio of imports to GNP rose from 9.2 percent to 10.3 percent over the 1970-77 period. This represents an average annual growth of 1.5 percent per year.

To examine these changes in more detail, an evaluation of the specific commodities accounting for this growing interdependence was made based on the ratio of exports to domestic shipments and imports to apparent consumption, and on the trend in these measures over the 1962-76 period. Table IV-3 presents the top ten U.S. exports ranked by the ratio of exports to total industry shipments in 1964, 1970 and 1976. Information on the importance of each commodity in terms of its contribution to U.S. exports as well as the U.S. share of world exports is given.

Table IV-3 indicates that U.S. exports of machinery and appliances - other than electric (SITC 719), aircraft (SITC

Table IV-3

Top Ten U.S. Exports Ranked by the Export/Shipments Ratio in 1964, 1970 and 1976

	1964			1970			1976			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Rank	SITC	PERCENT	PERCENT	SITC	PERCENT	PERCENT	SITC	PERCENT	PERCENT	TREND
1	613	.001	.197	613	.001	.127	891	.008	.152	.033
2	899	.028	.585	891	.008	.143	613	.001	.090	0
3	717	.014	.150	717	.009	.097	717	.006	.077	.011
4	599	.035	.416	711	.049	.301	678	.010	.091	.023
5	712	.042	.434	726	.002	.187	711	.048	.266	.011
6	891	.005	.152	678	.008	.097	599	.018	.203	-.003
7	689	.003	.261	599	.019	.235	722	.028	.199	.010
8	711	.027	.238	714	.053	.375	719	.106	.208	.007
9	719	.100	.283	513	.010	.219	726	.003	.188	.012
10	581	.024	.253	664	.004	.167	734	.080	.636	.015
		.279			.163			.308		

(1), (4), (7) = SITC categories ranked by Ratio of Exports to Shipments
(2), (5), (8) = Exports as a Share of Manufacturing Exports
(3), (6), (9) = U.S. Shares of World Exports
(10) = Trend of Export/Shipment Ratio (1964-1976) presented for 1976 SITC Categories

Source: Aho, Bowen, Pelzman (1980)

734), power generating machinery, (SITC 711) and chemicals (SITC 599), among others, played an important role in its export sector. By 1976, the top ten U.S. exports represented over 30 percent of the total value of U.S. exports. U.S. exports of these ten commodities also represent a large share of total OECD exports. For example, in 1976 U.S. exports of power generating machinery-other than electric (SITC 711), represented over 26 percent of total OECD exports of that commodity. U.S. exports of chemicals (SITC 599) accounted for over 20 percent of OECD exports in 1976. However, the U.S. share of chemical materials and products, nes (SITC 599) declined from over 40 percent of total OECD exports since 1964.

A somewhat different picture is portrayed by the top ten imports ranked by the ratio of imports to apparent consumption (import penatration ratio) presented in Table IV-4. The ranking of imports relative to apparent consumption reveals those goods in which the United States is most dependent on foreign suppliers and is thus least competitive in relative to other goods. The most notable among these goods is musical instruments (SITC 891) which ranked number one in both 1970 and 1976 and whose import penetration ratio has been increasing at a trend rate of 4.3 percent per year since 1964. Other commodities having a high import penetration ratio include pottery (SITC 666), textile and leather machinery (SITC 717), iron and steel tubes (SITC 678), silver (SITC 681) and footwear (SITC 851).

In order to assess U.S. comparative advantage across commodities vis-a-vis other countries, the information contained in the import to apparent consumption and exports to shipments ratios should be combined into one measure. One combined indicator is the ratio of net exports to domestic shipments.

Table IV-5 presents the top ten 3-digit SITC categories ranked by net exports to shipments for 1964, 1970 and 1976 along with their trend growth over the 1964-1976 period. Across all three periods this measure suggests that the commodities in which the United States has the greatest comparative advantage include: machinery and appliances (SITC 719), plastics (SITC 581), power generating equipment (SITC 711), miscellaneous chemicals (SITC 599), agricultural machinery (SITC 712) and fur skins (SITC 613). Aircraft (SITC 734), electric power machinery (SITC 722) and office machines (SITC 714) appear in the top ten in two of the three years.

Although there has been consistency among those commodities which comprise U.S. comparative advantage according to this net trade measure, three of them: agricultural machinery, power generating equipment and miscellaneous chemicals, had trend declines in net exports relative to shipments. The next two sections will examine other indicators of competitiveness to see how these important commodities have fared over time.

Table IV-4

Top Ten U.S. Imports Ranked by the Import to Apparent Consumption Ratios, 1964, 1970, 1976

Rank	(1) SITC	(2) PERCENT	(3) SITC	(4) PERCENT	(5) SITC	(6) PERCENT	(7) TREND
1	666	.008	891	.020	891	.019	.043
2	613	.001	666	.006	666	.005	.018
3	891	.014	717	.014	717	.010	.029
4	717	.015	678	.014	678	.013	.024
5	683	.018	613	0	864	.009	.013
6	681	.006	681	.006	681	.009	.026
7	899	.014	683	.013	851	.027	.019
8	689	.004	696	.004	711	.031	.019
9	678	.005	711	.031	613	0	-.005
10	864	.024	5 3	.012	513	.013	.015
		.119	.	.120		.136	

(1), (3), (5) = Import/Apparent Consumption Ratios Ranked (SITC Categories).

(2), (4), (6) = Imports as a Share of Manufacturing Imports.

(7) = Trend of Import/Apparent Consumption Ratio (1962-1976) presented for 1976 SITC Categories.

Source: Aho, Bowen, and Pelzman (1980).

Table IV-5

Top Ten U.S. Net Exports Ranked By Net Exports to Shipments Ratios, 1964, 1970, 1976

RANK	(1) 1964 SITC	(2) 1970 SITC	(3) 1976 SITC	(4) TREND
1	899	613	613	.012
2	599	599	734	.014
3	613	711	599	-.007
4	712	714	711	-.001
5	717	581	719	.003
6	719	719	722	.004
7	711	734	712	-.002
8	581	512	679	007
9	714	729	581	—
10	722	712	718	.002

(1), (2), (3) = Net Exports/Shipments Ratios Ranked (SITC Categories)

(4) = Trend of Net Exports/Shipments Ratios (1962-1977) Presented for 1976 SITC Categories

3.4 The Changing Composition of U.S. Trade and Comparative Advantage

The preceding sections have assessed the relative performance of the United States in world markets on the basis of its market shares and have examined the growing importance of international trade to the United States. The changes found have been striking. But these analyses, particularly the analysis of world export shares, have focused mostly on individual commodity performance and have ignored the underlying changes in the composition of U.S. trade, and hence its comparative advantage, which accompanies many of the declines noted.

The analysis of the changes in the structure of U.S. trade provides another basis upon which to judge relative performance. That is, it is not just the world share of a market that indicates a country's performance; one must also account for the competition between sectors for scarce resources within a country. Useful summary indicators of both the intercountry and intercommodity performance of a particular sector are indexes of revealed comparative advantage. One revealed comparative advantage index (RCA1) is defined as a country's export market share of a particular commodity divided by that country's overall share in world manufacturing exports. By convention, a country is said to have comparative advantage in those commodities for which this index exceeds unity and is correspondingly revealed to have a comparative disadvantage in those commodities for which this index is less than unity. On the basis of this index, the United States had a comparative advantage in thirty-two commodities in 1977.

A second revealed comparative advantage index of interest is based on the ratio of exports to imports (RCA2). In this instance, the export-import ratio for each commodity is taken relative to that country's overall manufactured goods export-import ratio. Once again, a country is considered to have a comparative advantage in those commodities for which this index is greater than one. On the basis of this index, the United States had a comparative advantage in fifty-three commodities in 1977.

Tables IV-6 and IV-7 show the changes which occurred in these revealed comparative advantage indices for the United States between 1962 and 1977.7/ The "maintained" group indicates those SITC categories in which the United States revealed a comparative advantage in both years. The attained group lists the SITC categories in which the United States did not reveal a comparative advantage in 1962 but did in 1977.

7/Aho, Bowen and Pelzman (1980) also performed similar comparisons on an export share basis for Japan and Germany.

Table IV-6

Changes in U.S. Revealed Comparative Advantage[1]/

(1962-1977)
(Export Share Basis)

A. Attained Comparative Advantage:

SITC	Description
512*	Organic chemicals
514	Other inorganic chemicals
561*	Fertilizers, manufactured products
571	Explosives and pyrotechnic products
631	Veneers, plywood
652	Cotton Fabrics, woven
664	Glass
689	Miscellaneous non-ferrous base metals
695	Tools for use in the hand or in machines
722*	Electric power machinery
726	Electric apparatus for medical purposes

B. Maintained Comparative Advantage:

SITC	Description
513	Inorganic chemicals
521	Mineral tar and crude chemicals from coal, petroleum and natural gas
551	Essential oils, perfume and flavour materials
599*	Chemical materials and products, n.e.s.
656	Made-up articles, of textile materials, n.e.s.
679	Iron and steel castings and forgings, unworked, n.e.s.
688	Uranium and thorium and their alloys
711*	Power generating machinery, other than electric
712*	Agricultural machinery and implements
714*	Office machines
718*	Machines for special industries
719*	Machinery and appliances (other than electrical) n.e.s.
729*	Other electrical machinery and apparatus
731	Railway vehicles
732*	Road Motor Vehicles
734*	Aircraft
861*	Scientific, medical, optical, measuring and controlling instruments
862*	Photographic and cinematographic supplies
892	Printed matter
894	Peramulator, toys, games and sporting goods
895	Office and stationery supplies, n.e.s.

C. Revealed Comparative Disadvantage:

SITC	Decription
541*	Medicinal and pharmaceutical products
554	Soaps, cleansing and polishing preparations
581*	Plastic materials
613	Fur skins, tanned or dressed (including dyed)
629	Articles of rubber, n.e.s.
642	Articles made of paper pulp, of paper or of paperboard
663	Mineral manufactures, n.e.s.
665	Glassware
682*	Copper
691	Finished structural parts and structures, n.e.s.
692	Metal containers for storage ant transport
715*	Metalworking machinery
724*	Telecommunications apparatus
899*	Manufactured articles, n.e.s.

1/Using a revealed comparative advantage index on an export share basis for 1962 and 1977, the changes are defined as whether the index went from less than one to greater than one (attained advantage), from greater than one to less than one (revealed disadvantage); or remained greater than one (maintained).

* One of the top twenty commodities in terms of export earnings. See Table IV-2.

Source: Aho, Bowen and Pelzman (1980).

Table IV 7

Changes in U.S. Revealed Comparative Advantage[1]

(X M) Basis
(1965 1977)

A. Attained Comparative Advantage.

SITC[2]	Description
514	Other inorganic chemicals
561[4]	Fertilizers, manufactured products
652	Cotton fabrics, woven
654	Tulle, lace, embroidery
655	Special textile fabrics
657	Floor coverings, tapestries
662	Clay and refractory construction material
664	Glass
675	Hoop and strip of iron or steel
689	Miscellaneous non ferrous base metals
698[4]	Manufactures of metal, n e s
711	Road vehicles other than motor vehicles

B. Maintained Comparative Advantage.

SITC	Description
512[4]	Organic chemicals
521	Mineral tar and crude chemicals from coal, petroleum and natural gas
533	Pigments, paints, varnishes
541	Medicinal and pharmaceutical products
551	Essential oils, perfume and flavour materials
553	Perfumery and cosmetics, dentifrices and other toilet preparations (except soaps)
554	Soaps, cleansing and polishing preparations
571	Explosives and pyrotechnic products
581	Plastic materials
599[4]	Chemical materials and products, n e s
611	Leather
612	Fur skins, tanned or dressed (including dyed)
642	Articles made of paper pulp, of paper or of paperboard
651	Textile yarn and thread
656	Made up articles, of textile materials, n e s
661	Mineral manufactures, n e s
665	Glassware
676	Rails and Railway track of iron and steel
679	Iron and steel castings and forgings, unworked, n e s
691	Finished structural parts and structures, n e s
692	Metal containers for storage and transport
695	Tools for use in the hand or in machines
711[4]	Power generating machinery, other than electric

B. Maintained Comparative Advantage (continued)

SITC	Description
712*	Agricultural machinery and implements
714*	Office machines
715*	Metalworking machinery
718*	Machines for special industries
719*	Machinery and appliances (other than electrical) n.e.s.
722*	Electric power machinery
723	Equipment for distrubuting electricity
726	Electic apparatus for medical purposes
729*	Other electrical machinery and apparatus
731	Railway vehicles
734*	Aircraft
735	Ships and boats
812	Sanitary, plumbing, heating and lighting fixtures and fittings
861*	Scientific, medical, optical, measuring and controlling instruments
862*	Photographic and cinematographic supplies
892	Printed matter
895	Office and stationery supplies, n.e.s.

C. Revealed Comparative Disadvantage:

SITC	Description
513	Inorganic chemicals
531	Synthetic organic dyestuffs
629	Articles or rubber, n.e.s.
672	Ingots and other primary forms of iron or steel
674*	Universals, plates and sheets of iron or steel
717	Textile and leather machinery
724*	Telecommunications appartus
725	Domestic electrical equipment
732*	Road motor vechicles
842	Fur clothing
893	Articles of artifical plastic materials, n.e.s.
899*	Manufactured articles, n.e.s.

1/Using revealed comparative advantage index on an export/import basis for 1962 and 1977, the changes are defined as whether the index went from less than one to greater than one (attained advantage), from greater than one to less than one (revealed disadvantage); or remained greater than one (maintained).

* One of the top twenty commodities in terms of export earnings. See Table IV-2.

Source: Aho, Bowen and Pelzman (1980)

Finally, the "revealed disadvantage" group lists those SITC categories in which the United States had revealed a comparative advantage in 1962 but no longer did in 1977.

A comparison of Tables IV-6 and IV-7 provides insight into the changing structure of U.S. trade in manufactured goods. Seventeen commodities appear on both lists and thus maintained their revealed comparative advantage over time. Included among these seventeen commodities are several non-electrical machinery industries (SITCs 711, 712, 714, 718, 719), aircraft (SITC 734), some chemical industries (SITCs 521, 551, and 559) and two scientific instruments categories (SITCs 861, 862).

Of more interest are the changes that have occurred over time. Beginning with the most improved performances, five commodities revealed a comparative advantage on both indices. These were: other inorganic chemicals (SITC 514), manufactured fertilizers (SITC 561), cotton fabrics-woven (SITC 652), glass (SITC 664) and miscellaneous nonferrous base metals (SITC 689).

At the other end of the spectrum, three commodities revealed a disadvantage on both indexes. These were: articles of rubber, nes (SITC 629, representing mostly rubber tires), telecommunications apparatus (SITC 724)[8/] and miscellaneous manufactures (SITC 899).

The mixed cases are also of interest. Four commodities maintained an advantage on an export-import ratio basis and revealed an advantage on an export share basis. These four are: explosives (SITC 571), tools for use in the hand or in machines (SITC 695), electric power machinery (SITC 722) and electrical medical apparatus (SITC 726).

In contrast to these four, twelve commodities maintained an advantage on the basis of one index and revealed a disadvantage on the other. Noteable among these twelve are: inorganic chemicals (SITC 513), road motor vehicles (SITC 732), medicinal and pharmaceutical products (SITC 541), plastics (SITC 581) and metalworking machinery (SITC 715). The first two of these commodities experienced such a deterioration in net trade that the United States became a net importer by 1977. The others experienced large relative declines in export shares which could be indicative of future competitive pressures in the domestic market.

The above comparisons provide an indication of the changes that have taken place in the structure of U.S. manufacturing trade. However, Tables IV-6 and IV-7 have only identified those commodities which had a revealed comparative advantage

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8/Telecommunications apparatus consists of both radio and TV apparatus and more sophisticated transmissions equipment.

index greater than one in at least one of the two years. In the background paper by Aho, Bowen and Pelzman (1980), a more detailed examination of the changes in U.S. trade in manufactured goods was conducted, including a comparison of the consistency among different indicators on the basis of their trend changes.

One analysis conducted by these authors was a statistical examination of the trends in the RCA1 index, over time. Since the RCA1 index is defined as the country's export share in a commodity relative to the overall share of manufactures in world trade, statistical analysis can be used to identify those commodities whose overall performance differed significantly from manufacturing trade in general. The trend of the RCA1 was compared with the trend in two additional indicators of competitiveness: the import penetration ratio and net exports relative to domestic shipments. Net exports compare the relative changes in exports and imports and therefore provide an indication of the competitiveness of U.S. producers in the domestic market in a commodity class while simultaneously observing export performance. Import penetration ratios focus directly on the competitiveness of domestic industries. Changes in import penetration on a commodity level were compared with the change in import penetration for manufacturing as a whole. A positive performance was indicated when a commodity's import penetration was not rising as quickly as that of overall manufacturing. The use of all three indicators provides a test of the consistency of these different measures of competitiveness.

Aho, Bowen and Pelzman (1980) concluded that the indexes were largely consistent and that where divergences did occur, either there was a need for further disaggregation of the traded goods categories or, in those cases in which the RCA1 trend was negative, that it was possibly an indication of future competitive pressures in the domestic market.9/ Table IV-8 summarizes the results of Aho, et. al. by indicating the commodities which consistently had a positive performance and those which consistently had a negative performance.

Included in the list of those which had a consistently positive performance were six of the commodities which contributed the most to export earnings. (See table IV-2). They were: organic chemicals (SITC 512), fertilizers (SITC 561) paper and paperboard (SITC 641), machines for special industries (SITC 718), scientific instruments (SITC 861) and photographic supplies (SITC 862).

9/Aho, Bowen and Pelzman (1980) compared several indicators of competitiveness using cross-tabulations and statistical tests. See their paper for the results of those analyses.

Table IV-8

Summary of Competitiveness Indicators[1]

Consistent Positive Competitiveness Indicators		Consistent Negative Competitiveness Indicators	
SITC	Description	SITC	Description
512*	Organic chemicals	513	Inorganic chemicals
514	Other inorganic chemicals	612	Manufactures of leather
551	Essential oils, perfume and flavour material	629	Articles of rubber, nes
561*	Fertilizers, manufactured	671	Pig iron
571	Explosives and pyrotechnic products	674*	Universals, plates and sheets of iron or steel
611	Leather	686	Zinc
631	Veneers, plywood boards	693	Wire products (excluding electric)
641*	Paper and paperboard	694	Nails, screws, nuts and bolts
653	Textile fabrics, woven other than cotton	698*	Manufactures of metals, nes
654	Tulle, lace, embroidery	724*	Telecommunications apparatus
655	Special textile fabrics and related products	725	Domestic electrical equipment
657	Floor coverings, tapestries, etc.	732*	Road motor vehicles
664	Glass	821	Furniture
676	Rails and railway track of iron or steel	841	Clothing (except fur clothing)
683	Nickel	842	Fur clothing
685	Lead	851	Footwear
687	Tin		
689	Misc. non-ferrous base metals		
718*	Machines for special industries		
723	Equipment for distributing electricity		
861*	Scientific measuring and controlling instruments		
862*	Photographic supplies		

[1] The three competitiveness indicators compared here were trends in the revealed comparative advantage index net exports relative to the shipments and the import penetration ratio. See text for description.

* Those categories among the top twenty in terms of their contribution to export earnings in manufacturing. (See Table IV-2).

Source: Aho, Bowen and Pelzman (1980).

Four of the top U.S. export earners showed consistently negative performances. They were: universals, plates and sheets of iron or steel (SITC 674), miscellaneous manufactures of metals (SITC 698), telecommunications apparatus (SITC 724) and road motor vehicles (SITC 732). Also included among the categories with consistently negative performances were several categories which have been involved in escape clause actions, including manufactures of leather (SITC 612), nails, screws, nuts and bolts (SITC 694) and footwear (SITC 851). Apparently, these indicators are consistent in identifying industries in which severe competitive problems have occurred. The more important question, however, is whether these indicators can identify which sectors will face future competitive pressure.

One possible indicator of future competitive pressure in the domestic market is a loss of export markets overseas. In this regard, several of the top export earners showed significant negative trends in the revealed comparative advantage index but little or no evidence of declining competitiveness on the other indicators. They included such important categories as agricultural machinery (SITC 712), metalworking machinery (SITC 715), medicinal and pharmaceutical products (SITC 541), plastics (SITC 581) and miscellaneous chemicals (SITC 599)

Each of these categories had declines in export market share which were significantly greater than the decline in the overall manufacturing share. Declines in export shares by themselves are not necessarily significant because, as the United States becomes a smaller proportion of the world economy, it is to be expected that its share of exports will decline. (See section 1 of Chapter V). However, what is significant here is that these sectors experienced declines greater than the decline in overall manufacturing. This is a strong indication that foreign competition has intensified in these sectors and suggests that these sectors may eventually face increased competition in the domestic market.

In sum, on the basis of the competitiveness measures presented thus far, many of the historically important U.S. export products have experienced a deterioration in their international competitiveness. On the other hand, some of the other historically important commodities have had a strong competitive performance. In the next section, an alternative methodology, constant market share analysis, is used to examine export performance at a detailed level and to begin to examine possible causes of differential performance.

4. Constant Market Share Analysis of U.S. Trade Performance

4.1 Methodology

This section evaluates U.S. export performance over the 1962-1977 period using the Constant Market Share (CMS) model.

The particular subperiods analyzed are 1962-1969, 1970-1973 and 1974-1977. These subperiods are considered to be the most homogeneous given the changes in exchange rate regimes and business cycle activity.

The Constant Market Share model enables U.S. export growth to be attributed to four specific sources:

a. the growth of world trade

b. the commodity composition of U.S. exports

c. the regional or market distribution of U.S. exports

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

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 regional distribution of U.S. exports? (4) What proportion of U.S. export growth is unexplained by these factors? The changes in this last component have traditionally been attributed to changes in competiveness.10/ "Competitiveness" in this context is a technical term and represents a residual effect not attributable to the first three effects. See Bowen and Pelzman (1980) for a more detailed discussion of this methodology and its limitations.

4.2 Analysis of U.S. Export Performance

4.2.1 Aggregate Results

Table IV-9 presents the estimates of the sources of growth in total U.S. manufacturing exports in each of three subperiods, 1962-1969, 1970-1973 and 1974-1977. These CMS component estimates were calculated using market shares for the

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10/A more detailed description of the Constant Market Share Model along with a complete analysis of U.S. exports at the 3-digit level of the SITC nomenclature is presented in Bowen and Pelzman (1980), which is attached to this report as a background document. The CMS procedure is subject to a number of conceptual and empirical problems when applied to the analysis of export growth. Nonetheless, it allows for a useful separation of the changes in export growth. See Bowen and Pelzman for a discussion of the limitations.

Table IV-9

Constant Market Share Estimates for the growth in U.S. Exports to the Total World Market[a] between 1962-69, 1970-73 and 1974-77

	YEARS		
CMS Components	1962-69	1970-73	1974-77
World Trade Effect	103	165	150
Commodity Effect	2	-11	54
Market Effect	22	- 6	-58
Competitive Effect	-27	-49	-46

a/Based on 102 3-digit SITC manufacturing commodities. The total world market is defined as Canada, Japan, Africa, OPEC, Latin America, EEC, Command Economies, Australia, New Zealand, S. Africa, Other Europe, Asia and South Pacific.

same 102 manufacturing categories used above.[11] The shares were calculated using the following twelve countries excluding their exports to the United States: Canada, Japan, Belgium-Luxembourg, Denmark, France, Germany, Ireland, Italy, Netherlands, Sweden, Switzerland and the United Kingdom.

11/All calculations were performed using nominal trade data. Some analysts (e.g., Davis, 1979) have attempted to proxy the more correct use of volume data by deflating the nominal trade data by an aggregate export unit value. The usefulness of this deflation is questionable. Bowen and Pelzman (1980) attempted to determine the extent to which the CMS results and the inferences concerning U.S. export performance were susceptible to a number of possible biases. Sensitivity tests were performed which examined variations in the CMS results due to aggregation biases, with respect to the time intervals used and the world standards chosen. These tests provided a level of confidence for the findings of the CMS analysis as applied to U.S. exports. The tests did point out, however, that the CMS results are sensitive to the choice of a base year and also to the definition of the world market. With respect to the interpretation of the world, the results demonstrated that U.S. export performance is far stronger in Latin America and Canada where transportation costs are minimized.

The small commodity effect in the 1962-69 period, indicates that the changes in U.S. manufacturing exports over that period were neither enhanced nor significantly retarded by the commodity composition of U.S. exports. In contrast, the market distribution of U.S. exports had a large positive impact on the growth of U.S. manufacturing exports. The major negative source for U.S. export growth during this period was the competitiveness effect.

During the 1970-73 period there was no positive source of U.S. export growth. During the 1974-77 period the only positive source of U.S. export growth was the favorable commodity composition of U.S. exports. However, in both of these time periods, as in the 1962-69 period, the major negative source of U.S. export growth was the competitiveness effect.

These results suggest that during the 1962-1977 period, the major factor accounting for increases in U.S. exports was the general increase in world trade whereas the principal factor retarding export growth was the competitiveness effect, thus suggesting a decline in U.S. competitiveness over this period. One should observe, however, that a wide range of factors affect the competitiveness of U.S. exports in the world market. A change in competitiveness could reflect changes in nontariff barriers, shifts in competing sources and tastes, and changes in technology of both exporting and consuming industries. The most noteworthy factor however, is the change in relative prices. A negative competitiveness effect may reflect a decline in a country's relative, prices which normally accompanies an expansion in exports. In addition, if the countries which define the world experience growth rates higher than the United States, the U.S. share in world trade is bound to decline.

As an indication of the influence of the above factors, Table IV-10 presents a comparison of the growth rates of selected industrial countries' export unit values adjusted for exchange rate movements in the 1962-69, 1970-73, and 1974-77 periods. These data indicate that during the 1962-69 period, U.S. export unit values grew much faster than did those of major competitors. However, during the 1970-73 and 1974-77 periods the growth of U.S. export unit values was much smaller than those for major competitors with the exception of Japan during 1974-77. These results suggest that the negative U.S. competitiveness component could be associated with a decline in its relative prices and not necessarily with a general decline in its competitiveness.

Table IV-11 presents the growth rates of GDP for selected industrial countries compared with the growth rate for the United States. In each of the three subperiods, the growth of U.S. GDP was less than that of its major competitors. It is,

Table IV-10

Percentage Growth of Selected Industrial Countries' Export Unit Values Adjusted for Exchange Rate Movements (Ranked by Growth Rates)

Countries	Percentage Growth of Export Unit Values Between Selected Time Periods
1962-69	
Japan	102
Germany	103
Denmark	106
Netherlands	106
Italy	107
Belgium-Luxembourg	109
France	109
Sweden	113
Canada	114
United States	114
Switzerland	121
United Kingdom	146
1970-73	
United Kingdom	120
United States	124
Canada	124
Italy	136
Belgium-Luxembourg	139
Netherlands	140
Japan	141
Sweden	141
France	146
Denmark	151
Germany	153
Switzerland	154
1974-77	
Japan	108
Canada	111
Belgium-Luxembourg	118
United States	120
Italy	120
France	123
Netherlands	125
Denmark	125
Germany	127
Switzerland	129
Sweden	133
United Kingdom	233

Table IV-11

Percentage Growth of Selected Industrial Countries' GDP Relative to U.S. GDP Growth (Ranked by Growth Rates)

Countries	Percentage Growth of GDP Between Selected Time Periods*
	1962-69
Denmark	93
Switzerland	96
Luxembourg	97
United States	100
Sweden	100
Belgium	101
France	101
Germany	102
Italy	105
United Kingdom	106
Netherlands	107
Canada	107
Japan	155
	1970-73
United Kingdom	96
United States	100
Italy	104
Sweden	108
Canada	111
Denmark	122
France	128
Netherlands	129
Belgium	129
Switzerland	133
Germany	134
Luxembourg	135
Japan	146
	1974-77
Italy	69
Sweden	89
Canada	91
Luxembourg	92
France	96
United States	100
Denmark	100
Belgium	103
Netherlands	106
Switzerland	106
Germany	107
Japan	112
United Kingdom	126

*Adjusted for exchange rate changes.

therefore, conceivable that the decline in U.S. competitiveness as captured by the CMS analysis may be attributable to these differences in GDP growth rates. This is possible because differences in GDP growth rates reflect differences in the growth rates of each country's production which could result in increases in exports.

It should be noted, however, that these comparisons are only suggestive of the influence of these factors on the CMS results and should not be considered conclusive. For this reason a closer analysis of U.S. export growth at a disaggregated level is desireable. Such an analysis also allows comparisons with the disaggregated results in the previous section.

4.2.2 Disaggregated Analysis of U.S. Export Growth

One method for assessing the observed declines in the U.S. world market shares for many of the commodities listed in Table IV-2 is to decompose the change in U.S. exports into two components: a market distribution effect and a residual (competitiveness effect). A summary of the CMS results for the top seventeen commodities listed in Table IV-2 is given below. Instead of repeating a listing of the elements of the CMS decomposition here, the reader is referred to the relevent tables in the background paper by Bowen and Pelzman (1980).

SITC 732 (Road motor vehicles)-the United States became a net importer of SITC 732 in 1968 and remained so all through the 1970's. Focusing solely on U.S. export performance, the results of the CMS procedure indicate that, over the 1962-1969 period, a positive competitiveness effect largely offset a negative market distribution effect. This negative market distribution effect was due largely to the relatively slower growth of the Latin American market which, after Canada, is a major demander of U.S. exports of SITC 732.

During the 1970-1973 period, however, the competitiveness effect was negative. A major factor slowing U.S. export growth during the 1974-1977 period was a significantly slower growth of the Canadian market coupled with a dramatic increase in world sales of SITC 732 to OPEC, of which the United States only contributed a small fraction.

When the CMS procedure was applied on an annual basis, the generally poor performance by the United States during the 1970s was due primarily to market distribution problems although there was also an indication of declining competitiveness.

SITC 719 (Machinery other than electric) - During the 1962-1969 period a negative competitiveness effect was the dominant factor retarding U.S. export growth of this commodity. This was also the case for the 1970-1973 and 1974-1977 periods. On an annual basis, the results are strikingly consistent with the above subperiod changes. Even in those cases in which the United States increased its relative share in a particular year, a positive competitiveness effect played a minor role.

SITC 734 (Aircraft) - This category is a principal export of the United States and it has generally remained competitive throughout the 1960s and 1970s. Although the competitiveness effect was generally large and positive over the 1962-1973 period, the 1974-1977 period showed a large negative competitiveness effect, particularly in 1976 and 1977 which coincided with a drop in the U.S. world export share. This suggests that the United States is beginning to face increasing competition in this important commodity.

SITC 718 (Machines for special industries) - The decline in the U.S. export market share, particularly during the 1962-1969 period, was due to a negative competitiveness effect. During the 1970-1973 period, the slower growth of key markets contributed to a further decline as was the case in the 1974-1977 period. On an annual basis, the CMS procedure indicated that year-to-year changes in the U.S. export market share in the 1970s reflected both the slower growth of key markets and competitiveness factors.

SITC 712 (Agricultural Machinery) - The retardation in the growth of U.S. exports during the 1962-1977 period was due mostly to the competitiveness effect. However, during the 1970s the competitiveness effect was mostly positive and any failure by the United States to maintain its overall market share since 1972 has been due primarily to market distribution problems, mainly the result of slower than average growth in Latin America, Canada and the lower Pacific basin countries including Australia.

SITC 899 (Manufactured Articles, nes) - The United States suffered a major decline in its world export share of this commodity class. By any account, this failure to maintain its market share was due to competitiveness effects. In the 1974-1977 period, the negative competitiveness effect was smaller than during earlier periods and represented primarily a stabilization of the U.S. share at a substantially reduced level.

SITC 729 (Other electrical machinery) - Whereas the growth of U.S. exports of this commodity group generally kept pace with world exports during the 1962-1969 period, the 1970s was a period of slower growth due to both market distribution and competitiveness factors. The loss in U.S. share was accompanied by increases in the export shares of Germany and Japan.

SITC 599 (Chemical materials, nes) - The United States suffered a major decline in its world export market share of this commodity class over the 1962-1973 period. In fact, U.S. exports over the 1962-69 period actually declined. From 1969 to 1973, U.S. exports increased, but this increase was significantly retarded by competitiveness factors. After 1973 the U.S. share remained relatively stable and any subsequent changes in market share were due mostly to the slower growth in key markets.

SITC 724 (Telecommunications apparatus) - The United States suffered a substantial decline in its market share during the 1962-1973 period, with most of this decline occurring in the 1968-1973 period. In fact, U.S. exports of SITC 724 expanded rapidly during the 1962-1967 period with over 40 percent of this growth attributable to the competitiveness effect. In the 1968-1973 period, this growth was markedly reduced due to negative competitiveness factors. During the 1974-1977 period, U.S. exports expanded at a growth rate close to that of the world, partially as a result of a turnaround in the competitiveness effect. This suggests that the United States was able to successfully counteract increasing competition and thus maintain its (reduced) share in this market. Nonetheless, the United States is a net importer of this commodity group.

SITC 711 (Power generating machinery) - The growth in U.S. exports of SITC 711 generally outpaced that of world exports during the 1962-1969 period but then slackened considerably during the 1970s. By 1977, the U.S. world export share was the same as that in 1963. With the exception of the period between 1975 and 1977, the

decline in the U.S. share was due to slower growth in key export markets. In the 1975-1977 period, a negative competitiveness effect also contributed to a further retardation in U.S. export growth.

SITC 715 (Metal working machinery) - A major decline in the U.S. world share occurred in the 1962-1969 period due mostly to a negative competitiveness effect. During the 1970-1973 period, the slower growth of key markets further contributed to the slower growth of U.S. exports. This was also the case in the 1974-1977 period.

SITC 714 (Office machinery including computers) - This key export sector for the United States showed a modest decline in world export share during the 1962-1969 period. A larger decline occurred during the 1970s. The decline in the early 1970s was due primarily to a negative competitiveness effect, whereas the 1974-1977 period was characterized by a substantial reduction in the growth of key export markets.

SITC 861 (Scientific, medical controlling instruments) - The growth in U.S. exports of SITC 861 generally kept pace with world exports in the decade of the 1960s. In the 1970s, however, a negative competitiveness effect retarded U.S. export growth resulting in a decline in the U.S. world export share. These negative competitive effects were especially pronounced in the 1970-1973 period. Japan was the clear beneficiary of the loss in the U.S. share.

SITC 581 (Plastic materials) - The growth in U.S. exports of SITC 581 failed to keep up with that of the world over the entire 1962-1977 period. During both the 1962-1969 and 1970-1973 periods, the growth of U.S. exports of this commodity was primarily retarded by a negative competitiveness effect. In the 1974-1977 period, however, negative growth in key export markets contributed to the slower growth in exports.

SITC 512 (Organic chemicals) - The U.S. world export share rose sharply over the 1962-1969 period, fell by an equal amount during the 1970-1973 period and continued a slow decline until 1977. The 1970-1973 decline was due to a large and negative competitiveness effect whereas further erosion in the U.S. market share in the 1974-1977 period was due mostly to the slower growth of key markets, particularly Latin America, Japan and Canada.

SITC 722 (Electric power machinery) - The growth in U.S. exports of SITC 722 outpaced that of the world during the 1962-1966 period, and lagged behind it in the 1966-1970 period. During the 1970-1977 period U.S. export growth was slightly below that of the other countries. The failure of U.S. export growth to keep pace with that of world exports of this commodity was due mostly to a negative competitiveness effect. In the 1970-1977 period, both the slower growth in key markets and negative competitiveness effect contributed to the decline in U.S. export shares.

SITC 541 (Medicinal and pharmaceutical products) - The major decline in the U.S. world export share of SITC 541 occurred during the 1962-1969 period although it also declined during the 1970-1973 period. The failure of the growth in U.S. exports to keep pace with that of the world's growth in the 1962-1969 period was due overwhelmingly to competitiveness effects. During the 1970-1973 period, the slower growth in key export markets also retarded U.S. export growth. During the 1974-1977 period, both competitive and market growth factors combined to retard export growth although the United States was able to maintain its world export share of SITC 541 within a narrow range.

In general, the picture which emerges from the CMS analysis for the above commodities, as well as for the others presented in the background paper by Bowen and Pelzman (1980), is that the majority of declines in U.S. world export shares in the decade of the 1960s were due to residual competitiveness effects. This generalization also applies to the 1970-1973 period although the slower growth of key export markets began to enter as a partial explanation of further declines. In the 1974-1977 period, it is less clear which effect dominated and any complete statement of the relative importance of each effect must be based on a case-by-case analysis.

The above partitioning of the factors affecting export performance since the early 1960s suggests that while the declines in U.S. market shares during the 1960s and early 1970s represented a deterioration of U.S. competitiveness, the latter part of the 1970s reflected a period of realignment in U.S. trading relationships to reflect changed international conditions. In effect, the latter part of the 1970s would appear to be a period in which the United States economy began to fully recognize and respond to the rapid growth in international competition started in the decade of the 1960s. In part, the full extent of that response remains to be seen.

5. PERFORMANCE OF IMPORTANT COMMODITIES IN A COMMON THIRD MARKET AREA AS AN INDICATION OF CHANGES IN COMPETITIVENESS OVER TIME

The discussion thus far has concentrated on both the composition and changes in the composition of U.S. trade. In this context, a number of key indicators were used to assess those goods in which the United States had a relative advantage in 1962 and those goods in which it presently has a relative advantage. This section examines the relative trade performance of the United States vis-a-vis its five major competitors in a common third market. This comparison potentially provides the best indication of changes in U.S. competitiveness because it presupposes that all competitors must face similar trading conditions. The basic findings of this analysis are that the United States has lost market share in many important commodities in most of the important markets, while Japan and Germany have experienced gains.

The manufacturing export performance of the United States relative to Japan, Germany and the European Community in developed country (DC), less developed country (LDC) and the world market are presented in Tables IV-12, IV-13, and IV-14, respectively. The U.S. share of total developed country imports of manufactured goods declined from 14.1 percent in 1962 to 9.5 percent in 1979, while Japan, Germany and the Euroupean Community increased their shares (See Table IV-12). In the LDC market, the U.S. export share declined from 34 percent in 1962 to 26.1 percent in 1979, whereas Japan's share rose from 9.9 percent to 19 percent over the same time period (see Table IV-13). The United States also experienced a loss of market share in the European Community, declining from 11.4 percent to 7.1 percent over the 1962-1969 period. While Japan's share increased slightly, Germany's share rose from 10.6 percent to 13.8 percent over the 1962-1979 period. In part, the U.S. performance in the European Market can be explained by the existence of the two effective customs unions: the European Economic Community and the European Free Trade Area.

As a comparison of U.S. trade performance vis-a-vis its four major competitors (Japan, France, Germany and the United Kingdom), deviations from the Constant Market Share (CMS) norm were calculated for the top seventeen U.S. exports for the periods 1962-1969 and 1970-1977. The common third market areas considered are: the World, OPEC, the Newly Industrialized

Table IV-12

U.S., Japanese, West German, and European Community
Shares of Developed Country Imports of
Manufactured Goods
(percent)

	U.S.	Japan	West Germany	European Community
1962	14.1	2.5	10.8	36.5
1963	13.9	2.4	11.1	37.0
1964	14.0	2.7	10.9	37.0
1965	13.7	3.2	10.9	37.8
1966	13.5	3.4	11.1	37.5
1967	13.8	3.4	11.3	37.1
1968	13.4	3.9	11.6	37.5
1969	13.2	4.1	11.9	38.5
1970	12.9	4.5	12.2	38.9
1971	11.8	5.1	12.5	40.0
1972	11.2	5.3	12.5	40.9
1973	11.3	4.5	13.0	40.9
1974	10.6	4.4	11.5	36.2
1975	10.8	3.9	11.0	36.7
1976	10.2	4.6	11.1	36.0
1977	9.5	4.9	11.4	36.9
1978	9.5	5.1	11.9	38.6
1979	9.5	4.2	11.5	38.6

Source: U.S. Department of Commerce. Developed country imports from the world are used as a proxy for world exports to developed countries.

Table IV-13

U.S., Japanese, West German, and European Community Shares of Total Less Developed Country Imports of Manufactured Goods from the Developed Countries (percent)

	U.S.	Japan	West Germany	European Community
1962	34.0	9.9	9.8	45.2
1963	33.9	10.8	9.5	44.2
1964	34.2	11.6	9.5	43.1
1965	32.0	13.3	10.0	43.2
1966	32.1	13.4	10.0	41.6
1967	31.2	14.2	10.3	41.0
1968	30.6	15.5	10.2	40.7
1969	28.5	16.9	10.3	41.0
1970	28.8	17.1	10.6	40.4
1971	26.4	19.1	10.8	41.1
1972	25.7	19.6	10.7	41.1
1973	26.8	20.3	11.5	39.5
1974	27.2	21.1	12.0	38.4
1975	27.7	19.4	11.7	41.0
1976	27.1	20.4	12.2	40.3
1977	24.6	21.0	12.6	42.4
1978	24.9	21.0	12.2	42.0
1979	26.1	19.0	11.3	41.8

Source: U.S. Department of Commerce. Developed country exports to less developed countries (LDC) are used as a proxy for the total LDC world.

Table IV-14

U.S., Japanese and West German Shares of Total European Community Imports of Manufactured Goods From the World (percent)

	U.S.	Japan	West Germany
1962	11.4	1.0	10.6
1963	11.0	0.9	11.3
1964	10.9	1.0	11.1
1965	10.4	1.1	11.1
1966	10.1	1.2	11.7
1967	10.2	1.2	12.4
1968	10.0	1.3	12.9
1969	9.6	1.4	13.4
1970	9.7	1.6	13.6
1971	8.6	1.8	14.0
1972	7.7	2.2	14.2
1973	7.8	2.0	14.7
1974	7.5	2.0	13.6
1975	7.6	1.9	13.1
1976	7.4	2.1	13.6
1977	6.8	2.3	13.7
1978	7.0	2.4	14.2
1979	7.1	2.1	13.8

Source: U.S. Department of Commerce compiled from the IMF publication, Direction of Trade. As defined by the IMF, the world includes all 153 countries.

Economies (CPE).12/

Tables IV-15 to IV-22 summarize the results. The entries in each table are divided into two sections according to whether the reporting country had actual exports greater than the CMS norm "predicted" (relative gain) or if actual exports were less than what the CMS norm "predicted" (relative loss).

In the overall world market, the United States had a relative loss in fourteen commodities and a relative gain in only three commodities between 1962 and 1969. (See Table IV-15.) Japan, however, experienced gains in many of the same commodities where the United States experienced relative declines. During 1970-1977 the United States experienced a loss in the world market for all seventeen commodities (See Table IV-16.) As in the earlier period, Japan had the largest number of relative gains. In fourteen commodities Japan showed gains in excess of the CMS norm.

When the market area is subdivided into the NIC's, OPEC and the CPE's, the relative performance of the United States improved slightly. During the 1962-1969 period, the United States had a relative gain in six commodities. However, Japan's gain was marginally greater even in these commodities. (see Table IV-17.) Between 1970 and 1977, the U.S. share exceeded the CMS norm in six commodities. The major improvements occurred in SITC 581 (plastic materials), SITC 599 (miscellaneous chemical materials,) and SITC 722 (electric power machinery). In all of these commodities the ratio of actual to predicted exports changed from less than one to greater than one between the 1962-1969 and 1970-1977 periods (see Table IV-18.)

In the OPEC market, the United States had experienced relative gains in six commodities between 1962-1969. During the 1970-1977 period, the number of commodities in which the United States exports exceeded the CMS norm dropped to one, SITC 734 (aircraft). (See Tables IV-19 and IV-20). In both time periods, Japan and Germany experienced relative gains in most of the top seventeen U.S. exports.

In the CPE's, the United States, Japan and West Germany all experienced relative gains in the majority of the top seventeen U.S. exports. (See Tables IV-21 and IV-22). It should be noted, however, that U.S. exports to the CPE's were very small

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12/OPEC includes Algeria, Nigeria, Gabon, Venezuela, Ecuador, Iraq, Iran and Indonesia. The Newly Industrialized Countries include Mexico, Brazil, Singapore, South Korea, Formosa, and Hong Kong. The Centrally Planned Economies include, the USSR, E. Germany, Poland, Czechoslovakia, Hungary, Romania, Bulgaria and Albania.

Table IV-15

Deviations from Constant-Market-Share Norms
1962 - 1969

Market Area: World

	RELATIVE LOSS					RELATIVE GAIN				
SITC	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512			0.81	0.86	0.70	1.21	1.74			
541	0.63	0.97			0.86			1.16	1.36	
581	0.66			0.97	0.69		2.34	1.10		
599	0.52				0.97		2.91	1.70	1.41	
711				0.90	0.62	1.35	1.91			
712	0.78				0.72		5.61	1.62	1.37	
714			0.96	0.95	0.94	1.08	14.55			
715	0.53				0.96		4.16	1.29	1.05	
716	0.80				0.74		1.67	1.58	1.06	
719	0.92			0.96	0.75		2.75	1.03		
722	0.99			0.96	0.61		2.28	1.07		
724	0.60		0.83	0.89	0.54		2.09			
729	0.95			0.95	0.60		1.42	1.13		
732	0.94		0.74	0.79	0.49		2.69			
734	0.91		0.87				5.54		4.27	1.76
861	1.00			0.85			1.37	1.05		1.04
899	0.23						2.67	2.40	2.66	1.31

Relative Loss - Ratio of actual to predicted exports less than or equal to 1
Relative Gain - Ratio of actual to predicted exports greater than one
NC - Indicates predicted trade values of zero

Table IV-16

Deviations from Constant-Market-Share Norms
1970 - 1977

Market Area: World

	RELATIVE LOSS					RELATIVE GAIN				
SITC	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512	0.77						1.00	1.02	1.03	1.15
541	0.86	0.91		0.92	0.96			1.08		
581	0.71	0.77			0.87			1.26	1.01	
599	0.83				0.92		1.70	1.11	1.01	
711	0.77				0.83		2.15	1.42	1.31	
712	0.86		0.99		0.80		2.07		1.17	
714	0.88						1.28	1.16	1.09	1.12
715	0.71				0.62		2.68	1.01	1.05	
718	0.93			0.98			1.18	1.17		1.03
719	0.81				0.81		1.71	1.28	1.04	
722	0.97			0.95	0.91		1.52	1.11		
724	0.86				0.82		1.13	1.23	1.00	
729	0.91				0.85		1.53	1.07	1.08	
732	0.89			0.95	0.63		2.10	1.10		
734	0.91	0.26						1.34	3.25	1.11
861	0.76			0.95	0.78		1.48	1.07		
899	0.71			0.89	0.80		1.03	1.23		

Relative Loss - Ratio of actual to predicted exports less than or equal to 1
Relative Gain - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted thrade values of zero

Table IV-17

Deviations from Constant-Market-Share Norms
1962-1969

Market Area:
Newly Industrialized Economies

	RELATIVE LOSS					RELATIVE GAIN				
SITC	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512			0.77	0.74	0.61	1.34	1.60			
541	0.62	0.97						1.48	2.13	1.71
581	0.80		0.42	0.73	0.38		2.43			
599	0.59						4.96	5.84	1.22	4.02
711	0.83			0.81	0.74		1.61	7.64		
712	0.96		0.04		0.56		1.98		3.91	
714			0.92	0.64	0.75	2.07	4.11			
715	0.81		0.69	0.77			2.49			2.42
718	0.77						3.25	2.41	1.02	1.46
719	0.82			0.97	0.99		2.72	1.03		
722	0.81			0.77	0.58		1.86	2.00		
724		0.87		0.53	0.41	1.63		1.67		
729			0.77	0.46	0.44	1.19	1.25			
732	0.94		0.83	0.51			1.38			1.5
734			0.07	0.03		1.15	6.83			3.57
881				0.63	0.75	1.16	1.22	1.06		
899	0.48			0.92	0.65		1.65	3.28		

RELATIVE LOSS - Ratio of actual to predicted exports less than or = 1
RELATIVE GAIN - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted trade values of zero

Table IV-18

Deviations from Constant-Market-Share Norms
1970 - 1977

Market Area:
Newly Industrialized Economies

	RELATIVE LOSS					RELATIVE GAIN				
SITC	U.S.	JAPAN	FRANCE	GERMANY	U.K.	U.S.	JAPAN	FRANCE	GERMANY	U.K.
512	0.92			0.65	0.95		1.52	1.03		
541	0.81			1.00			1.20	1.49		1.34
581		0.99		0.77	0.95	1.04		2.23		
599			0.96	0.90		1.01	1.31			1.00
711	0.75		0.56		0.68		1.78		1.48	
712	0.87				0.68		2.66	7.23	1.43	
714	0.85		0.64	0.67	0.88		3.09			
715	0.70			0.82	0.76		2.03	1.19		
718				0.68	0.79	1.00	1.34	1.87		
719	0.78			0.99	0.62		1.72	1.03		
722				0.89	0.54	1.02	1.21	1.74		
724			0.53		0.28	1.24	1.02		1.60	
729	0.96			0.53	0.76		1.23	1.48		
732	0.92		0.82	0.88	0.63		1.59			
734		0.01		0.31	0.28	1.35		3.06		
861	0.84			0.85			1.26	1.10		1.10
899	0.61			0.70	0.84		1.08	2.68		

RELATIVE LOSS - Ratio of actual to predicted exports less than or = 1
RELATIVE GAIN - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted trade values of zero

Table IV-19

Deviations from Constant-Market-Share Norms
1962 - 1969

Market Area:
OPEC

	RELATIVE LOSS					RELATIVE GAIN				
SITC	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512		0.52			0.52	1.83		1.15	1.45	
541	0.67				0.94		1.16	1.29	1.03	
581	0.87				0.42		2.95	1.25	1.16	
599	0.55				0.69		25.24	1.57	1.73	
711			0.81	0.66	0.51	1.34	4.61			
712	0.76			0.88	0.82		2.45	2.27		
714	0.86				0.79		8.82	1.05	1.34	
715	0.62	0.55			0.65			2.66	1.15	
716	0.73	0.92			0.73			1.54	1.35	
719	0.90				0.57		1.97	1.07	1.40	
722					0.49	1.02	2.43	1.14	1.21	
724			0.82		0.55	1.15	1.09		1.03	
729	0.94		0.93		0.58		2.24		1.00	
732	0.72		0.78		1.00		2.20		1.08	
734			0.65	0.11	0.29	1.06	2.99			
861				0.77	0.71	1.10	1.42	1.16		
899	0.57				0.62		2.49	1.00	1.60	

RELATIVE LOSS - Ratio of actual to predicted exports less than or = 1
RELATIVE GAIN - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted trade values of zero

Table IV-20

Deviation from Constant-Market-Share Norms
1970 - 1977

Market Area:
OPEC - High Absorption

	RELATIVE LOSS					RELATIVE GAIN				
SITC	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512	0.93		0.60	0.83	0.92		1.41			
541	0.73		0.80				1.07		1.02	1.46
581	0.72		0.48		0.90		1.06		1.01	
599	0.84		0.61				1.65		1.16	1.12
711	0.81		0.69		0.71		2.67		2.19	
712	0.85		0.16	0.80	0.86		2.37			
714	0.88						1.37	1.17	1.16	1.19
715	0.58		0.77		0.83		3.46		1.76	
718	0.74	0.91	0.92						1.50	1.17
719	0.67		0.83		0.74		2.43		1.49	
722	0.68		0.78				1.63		1.13	1.26
724	0.96			0.72	0.68		1.18	1.07		
729	0.56	0.74	0.53		0.65				2.71	
732	0.60			0.92	0.65		3.07	1.12		
734		0.01			0.43	1.17		1.59	31.03	
881	0.64		0.77				1.83		1.05	1.34
899	0.88		0.81	0.97			1.03			1.07

RELATIVE LOSS - Ratio of actual to predicted exports less than or = 1
RELATIVE GAIN - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted trade values of zero

Table IV-21
Deviations from Constant-Market-Share Norms
1962 - 1969

Market Area:
Europe - Planned Economies

	RELATIVE LOSS					RELATIVE GAIN				
SITC	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512				0.95	0.45	6.72	5.58	1.28		
541	0.86	0.52			0.76			1.12	1.03	
501			0.59		0.49	1.02	21.29		1.11	
599	0.93				0.97		6.19	2.25	1.05	
711			0.80	0.98	0.46	12.03	11.98			
712		NC	0.72		0.37	2.64	NC		1.59	
714			0.92	0.70	0.59	11.81	1.59			
715				0.77	0.95	20.23	1.98	1.73		
718		0.27	0.94		0.39	1.76			1.95	
719			0.99			2.21	1.27		1.19	1.06
722			0.51			4.64	1.46		1.28	1.19
724			0.51		0.64	1.44	1.79		1.16	
729				0.77	0.68	5.93	1.17	1.52		
732				0.85	0.44	9.48	2.57	1.79		
734	0.01	NC	NC	NC			NC	NC	NC	1.47
881		0.98		0.82		2.81		1.03		1.00
899	0.03				0.28		37.35	1.26	2.77	

RELATIVE LOSS - Ratio of actual to predicted exports less than or = 1
RELATIVE GAIN - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted trade values of zero

Table IV-22
Deviations from Constant-Market-Share Norms
1970 - 1977

Market Area:
Europe - Planned Economies

SITC	RELATIVE LOSS: UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM	RELATIVE GAIN: UNITED STATES	JAPAN	FRANCE	GERMANY	UNITED KINGDOM
512	0.36			0.92	0.78		1.42	1.01		
541		0.78	0.92		0.86	1.14			1.24	
581		0.65	0.99		0.83	2.05			1.15	
599					0.46	3.20	1.03	1.76	1.12	
711			0.74			5.50	6.47		1.08	1.12
712	0.44	0.28			0.80			7.13	4.73	
714			0.67		0.51	1.22	2.21		2.14	
715			0.44		0.27	2.25	3.17		1.27	
718			0.91		0.40	1.27	1.16		1.48	
719			0.95		0.43	2.31	2.36		1.45	
722					0.63	6.04	2.26	1.31	1.07	
724					0.61	8.90	1.85	3.59	1.52	
729			0.51		0.50	2.28	1.57		1.30	
732			0.50		0.89	2.55	1.19		1.95	
734		NC		0.85	0.81	3.37	NC	1.48		
881			8.97		0.55	1.87	1.02		1.36	
899					0.71	1.47	1.27	1.40	1.26	

RELATIVE LOSS - Ratio of actual to predicted exports less than or = 1
RELATIVE GAIN - Ratio of actual to predicted exports greater than 1
NC - Indicates predicted trade values of zero

and any changes over the 1962-1969 and 1970-1977 periods would show up as large deviations above the CMS norm. In the same vein, Germany's performance is understated given its fairly large CPE trade.

6 TECHNOLOGY-INTENSIVE INDUSTRIES IN U.S. TRADE13/

6.1 Introduction

Technology-intensive products such as aircraft, computers and electrical machinery have traditionally been a source of strength in the U.S. trade balance. All of the empirical evidence on U.S. comparative advantage supports the view that, at least in the past, the United States has had a unique advantage in the trade of technology-intensive products and a disadvantage in sectors which employ proportionately more unskilled and semiskilled workers.14/

In the past decade there has been a decline in U.S. research effort both relative to our trading partners and relative to past efforts. (See Chapter V-2.2 for a discussion.) Consequently, the question arises whether the United States has lost its traditional competitive advantage in technology-intensive commodities.

This section examines recent trends in technology-intensive trade to see whether and to what extent there have been shifts in the pattern of trade in technology-intensive products. Using the same indexes designed to describe trade structure and measure trade performance, trade patterns are compared over time and across countries to see whether the United States has experienced increased

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13/See the background paper by Aho and Rosen, "Trends in Technology-Intensive Trade" for a more extensive discussion of the material in this section.

14/Indeed, Baldwin (1979) recently claimed that the United States is unique in the technology intensiveness of its trade. Stern and Maskus (1980) presented evidence which suggested that technology may be becoming even more important as a determinant of U.S. comparative advantage. While not actually disagreeing with the empirical literature, Kelly (1977) pointed out that technology is only one factor among many which influences the composition of trade and that it is difficult to separate out the effects of technology on trade patterns. Nonetheless, she joined most observers who have claimed that the United States has a strong comparative advantage in technology-intensive products. See Aho and Rosen (1980) for a more complete discussion of the literature on technology and trade.

competition in those technology-intensive products in which it had traditionally been a dominant supplier.

Technology-intensive products are defined here as those products which had above average R&D expenditures as a percentage of sales. In order to facilitate international comparisons, the data are classified according to the Standard International Trade Classification (SITC).15/ Seventeen manufacturing categories had above average R&D activity and will be referred to throughout this section as technology-intensive products. The seventeen industries are listed below in Table IV-23.

The results confirm that the United States still has a competitive (and comparative) advantage in technology-intensive products, but the evidence suggests that the advantage is beginning to erode. The United States is beginning to experience more competition in technology-intensive products, particularly from Japan.

The remainder of this section is divided into subsections. First, U.S. trade performance in high technology products is presented relative to overall U.S. manufacturing trade performance. Then, U.S. trade performance in high technology products is compared with that of the other major industrial countries. Finally, several of the competitiveness indicators are compared in order to assess U.S. trade performance in these commodities.

6.2 Performance of Technology-Intensive Goods Relative to Overall U.S. Manufacturing Trade

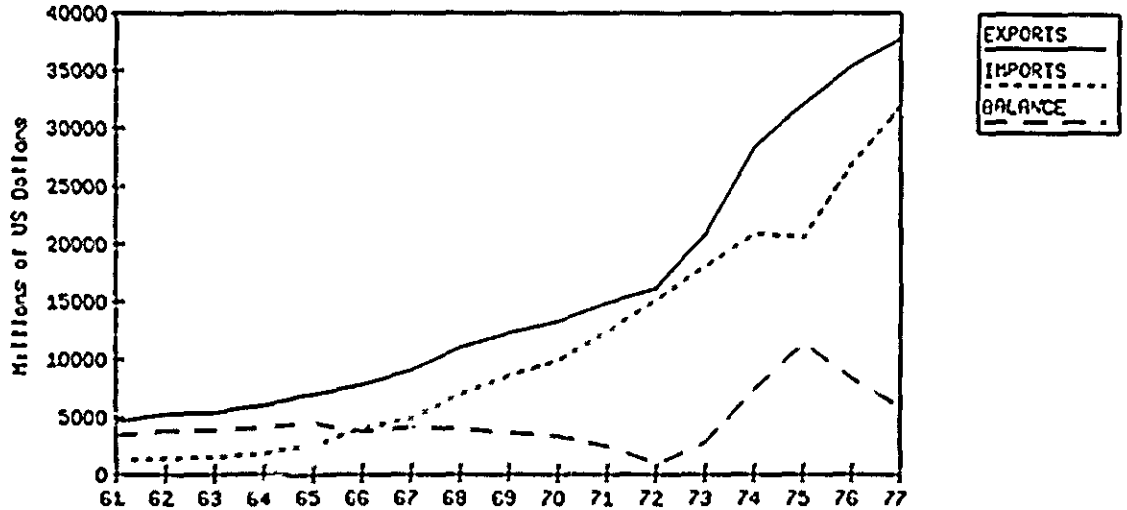
Although there have been fluctuations in the overall manufactured goods trade balance, the United States has had a trade surplus in high-technology products every year since 1961. In many years the surplus in high-technology goods trade was a principal source of strength in the overall manufactured goods trade balance, especially in 1972 and 1973 when the United States experienced trade deficits in total manufactured goods. The U.S. trade balance in technology-intensive goods is presented in Figure IV-1.16/

15/See Aho and Rosen (1980) for a complete discussion of the methodology used to define technology-intensive products and for a comparison with other definitions of technology-intensive products.

16/This performance in high technology products contrasts sharply with U.S. trade in non-high-technology goods which generally declined from 1961 to 1977. Since 1968, the United States experienced a deficit in non-high-technology goods trade except in 1969-1970 and 1975-1977.

Figure IV-1

U.S. Trade Balance in
Technology-Intensive Goods
1961-1977



Source: Aho and Rosen (1980)

Between 1968 and 1971, the high-technology trade surplus was approximately equal to, and in some years actually greater than, the overall manufactured goods trade balance. A large drop in the high-technology goods trade surplus in 1972 coincided with a manufactured goods trade deficit. The high-technology goods surplus recovered from the 1972 drop and continued to strengthen through 1975. However, there was a slight decline in the trade surplus in high-technology goods in 1976 and 1977.17/

The high-technology goods share of U.S. manufactures exports increased throughout 1961-1977 period. In 1962, high-technology goods comprised 38 percent of total U.S. manufactured goods exports. By 1977 the share had risen to 48 percent although most of the increase in share occurred prior to 1971. The composition of U.S. manufactured goods imports also became more technology-intensive throughout the period. The high-technology goods share of manufactured imports rose from 20 percent in 1961 to almost 41 percent in 1977, growing at an average annual rate of 4.8 percent. Thus, although there is still a trade surplus in high-technology products, the gap between the high-technology goods share of manufactured exports and imports has been closing.

17/One of the primary reasons for stopping with data through 1977 was the lack of comparable international data after 1977 because several, but not all, of the OECD countries switched to a new revision of the SITC. In addition, the United States changed its classification schedules in 1978. The old schedule B became schedule E and a new schedule B was adopted. More recent data for the United States are available but because of classification problems they must be considered preliminary. The following Table compares the NSF definition of technology-intensive products with the definition used by Aho and Rosen (1980).

	1977			1978			1979		
	Exp.	Imp.	Bal.	Exp.	Imp.	Bal.	Exp.	Imp.	Bal.
NSF	53.2	25.5	27.7	63.9	34.3	29.6	79.1	39.8	39.3
DOL	37.8	31.9	5.8	40.3	35.6	4.7	48.5	38.3	10.2
DOL (w/o auto)	26.0	14.4	11.6	28.1	13.4	14.7	34.6	14.4	20.2

Under all definitions of technology intensive products the preliminary data show that the trade balance in technology-intensive commodities improved between 1978 and 1979. See the background paper by Aho & Rosen for a discussion of more recent data and the concordance problems.

A useful way of summarizing the technological content of trade is to calculate the amount of technology embodied in exports or imports. This is accomplished by weighing each sector's ratio of R&D to shipments by its share in manufacturing exports. This index identifies changes in the technological content of trade as the composition of trade changes over time.18/

Figure IV-2 compares the technological content of U.S. exports and imports over time and confirms that the United States has been and remains a net exporter of products embodying research and development efforts. Figure IV-3 compares the technological content of U.S. exports to developed and developing countries over time. The figure shows that since 1971 there has been a significant decline in the technological content of exports to the developed countries.19/ The technological content of exports to developing countries has fluctuated, increasing slowly within the last decade.

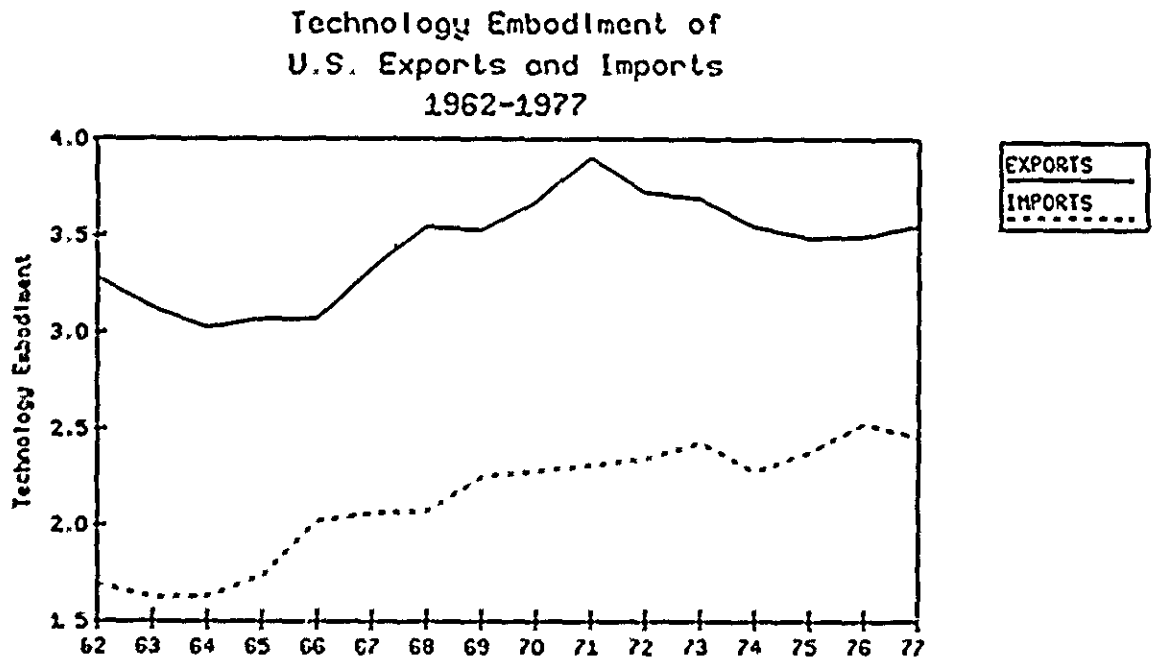
Table IV-23 provides summary data for each of the seventeen technology-intensive products for the United States. Included in the table are data on the share in U.S. manufacturing exports, export market shares, and net exports for 1962, 1970 and 1977. Two summary measures of trends are also included. They are the annual percentage changes in world export shares and the trend in net exports. These latter two measures summarize the trend over the entire period rather than comparing only two or three points in time.

In terms of their importance in U.S. manufacturing exports, ten of the top twenty industries ranked in terms of export earnings in 1977 were technology-intensive. In 1962, nine of the top twenty were technology-intensive. Photographic supplies (SITC 862) was among the top export earners in 1977 along with the original nine which remained the same.

18/This embodiment index only takes account of the direct technology embodied in trade and does not take account of the technological content of the secondary inputs to the final products. Further, the changes in the technology content reflect only changes in the composition of exports or imports and not the total technology content.

19/Using a similar comparison of the embodiment of capital and skilled labor in U.S. exports and imports, Bowen (1980a) found that the capital and skilled labor embodied in U.S. exports going to developed countries similarly declined. He attributed this to the increased availability of these resources in the developed countries. See Chapter V, section-1.1, for some of the results of his study.

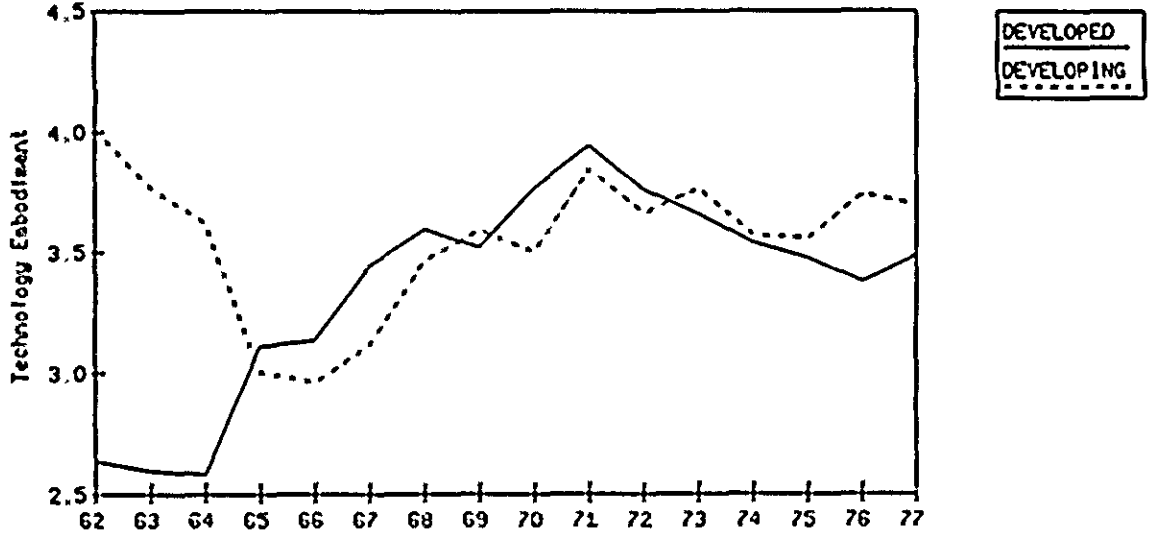
Figure IV-2



Source: Aho and Rosen (1980)

Figure IV-3

Technology Embodiment of U.S. Exports
to Developed and Developing Countries
1962-1977



Source: Aho and Rosen (1980)

Table IV-21

Market Performance Summary of U.S. Technology-Intensive Manufactured Goods

SITC	Description	(1) Share of U.S. manufacturing exports 1962	(2) 1970	(3) 1977	(4) World market share 1962	(5) 1970	(6) 1977	(7)** Annual percentage change in Market Share	(8) Net exports (millions of current U.S. $) 1962	(9) 1970	(10) 1977	(11) Trend change in net exports 1962-1977
724	Telecommunication apparatus	3.2	2.3	2.7	28.2	14.7	12.6	-5.24	226.4	-442.2	-1,624.3	-76.2
714	Office machines	2.4	5.4	4.6	33.6	37.5	32.8	-.60	242.8	1,042.0	2,055.4	56.9
7[illegible]4	Aircraft	9.3	9.2	7.4	70.7	66.2	59.6	.01	1,155.3	2,392.2	5,261.5	163.9
541	Medicinal and pharmaceutical products	2.0	1.5	1.4	27.2	17.0	14.4	-4.26	220.1	333.1	761.1	11.8
726	Electric apparatus for medical purposes	.1	.2	.4	11.4	18.7	24.4	1.36	4.3	19.3	116.7	1.8
711	Power generating machinery	2.9	4.9	4.6	21.1	30.1	23.0	.01	371.5	622.7	1,372.5	32.9
514	Other inorganic chemicals	.4	.5	.5	15.4	18.6	23.0	.00	-14.4	77.6	257.3	8.9
864	Watches and clocks	.1	.1	.2	1.5	2.0	5.2	8.45	-68.8	-163.3	-538.1	-12.3
513	Inorganic chemicals	.8	1.0	.8	27.2	21.9	15.4	-2.69	53.4	-21.4	-386.2	-12.3
862	Photographic supplies	.6	.9	1.0	27.6	29.2	27.0	-.49	41.8	152.2	523.4	15.0
861	Scientific, medical controlling instruments	2.3	3.0	2.8	28.2	26.3	19.9	-2.22	213.1	500.5	911.6	22.6
571	Explosives and pyrotechnics	.1	.1	.1	17.2	15.4	20.4	.58	7.2	-7.4	43.3	0.9
581	Plastic materials	2.2	2.3	2.2	27.3	16.8	11.8	-6.04	289.5	530.0	1,332.0	27.3
722	Electric power machinery	1.9	2.1	2.9	20.9	18.7	18.1	-1.65	230.1	364.0	1,327.0	27.3
725	Domestic electrical equipment	.8	.4	.7	21.6	9.0	10.3	-5.33	89.3	-23.9	-21.9	-8.0
72[illegible]	Equipment for distributing electricity	.3	.3	.5	12.9	10.6	13.9	.62	35.1	-53.6	182.6	2.5
732	Road motor vehicles	9.5	12.3	14.9	22.4	17.3	15.3	-2.63	754.4	-1,939.6	-5,732.9	-277.7

**Note that whereas the trade performance summary indicators in column 7 can be compared across commodity categories, those presented in columns 11 can not.

Source: Aho and Rosen (1980)

On a net export basis, nine of the top twenty net export earners were technology-intensive in 1962 and in 1977. Seven remained the same, but two, road motor vehicles (SITC 732) and telecommunications apparatus (SITC 724), became net importers by 1977. In all, the United States became a net importer in four of the technology-intensive products by 1977. Only in other inorganic chemicals (SITC 514) did the United States become a net exporter. These changes are significant because, analytically, the most correct measure of comparative advantage is net exports. Thus, the trends in net exports indicate a deterioration in the competitiveness of some U.S. technology-intensive products. On the other hand, the net export position strengthened in many of the products. Of particular note are office machines (computers) (SITC 714), aircraft (SITC 734) and photographic supplies (SITC 862).

Common indicators of the competitiveness of an industry are its export market share and the change in its export market share over time.[20] In both 1962 and 1977, nine of the industries with the largest export market shares were technology-intensive. However, ten of the high technology industries showed trend declines in market share over the period. The largest declines were in telecommunications apparatus (SITC 724), medicinal and pharmaceutical products (SITC 541), plastics (SITC 581), and domestic electrical equipment (SITC 725).

As discussed in Section 3 of this chapter, exports and imports have become an increasingly important part of domestic economic activity. Table IV-24 compares exports and imports of high-technology products with domestic production and consumption for different time periods. When products are ranked in terms of exports to domestic shipments, high-technology product exports are becoming increasingly important. In 1962, seven of the top twenty industries were technology-intensive. They were: power generating machinery (SITC 711), plastics (SITC 581), office machines (SITC 714), inorganic chemicals (SITC 513), scientific instruments (SITC 861), electric apparatus for medical purposes (SITC 726) and electric power machinery (SITC 722). Aircraft (SITC 734) joined these seven in 1970. By 1976, nine of the top twenty industries were technology-intensive, with the addition of watches and clocks (SITC 864).

A ranking of all manufacturing industries in terms of the percentage of shipments exported shows that the average rank of the technology-intensive commodities rose steadily from 30.4 in 1964 to 24.8 in 1977. This is an indication that the high

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20/Export market shares are taken from Bowen and Pelzman (1980) who calculated the shares using thirteen OECD countries as the "world" of competitors.

Table IV-24

Trade in Technology-Intensive Products
Relative to Domestic Production and Consumption

SITC	Description	(1) Ratio of Exports to Shipments 1964	(2) 1970	(3) 1976	(4) Ratio of Net Exports to Shipment 1964	(5) 1970	(6) 1976	(8) Import Penetration Ratio* 1964	(9) 1970	(10) 1976
724	Telecommunication apparatus	0.03	0.03	0.05	0.02	-0.02	-0.05	0.02	0.04	0.09
714	Office machines	0.11	0.20	0.21	0.09	0.14	0.12	0.03	0.08	0.11
734	Aircraft	0.08	0.13	0.24	0.07	0.12	0.23	0.01	0.02	0.02
541	Medicinal and pharmaceutical products	0.07	0.06	0.08	0.06	0.05	0.06	0.01	0.01	0.02
726	Electric apparatus for medical purposes	0.10	0.23	0.25	0.04	0.08	0.04	0.06	0.16	0.22
711	Power generating machinery	0.19	0.31	0.41	0.14	0.14	0.19	0.06	0.20	0.27
514	Other inorganic chemicals	0.02	0.03	0.04	0.01	0.02	0.02	0.01	0.01	0.01
864	Watches and clocks	0.02	0.02	0.15	-0.12	-0.18	-0.27	0.13	0.18	0.33
513	Inorganic chemicals	0.10	0.18	0.20	0.03	-0.01	-0.05	0.08	0.19	0.23
862	Photographic Supplies	0.50	0.05	0.08	0.03	0.03	0.05	0.02	0.02	0.03
861	Scientific, medical controlling instruments	0.10	0.13	0.16	0.06	0.08	0.08	0.04	0.06	0.09
571	Explosives and pyrotechnics	0.06	0.04	0.10	0.03	-0.02	0.06	0.03	0.06	0.05
581	Plastic materials	0.14	0.16	0.15	0.13	0.13	0.12	0.01	0.03	0.03
722	Electric power machinery	0.09	0.11	0.25	0.08	0.06	0.16	0.01	0.05	0.11
725	Domestic electrical equipment	0.03	0.02	0.05	0.02	0.00	0.01	0.01	0.02	0.05
723	Equipment for distributing electricity	0.04	0.05	0.10	0.03	-0.03	0.04	0.02	0.08	0.07
732	Road motor vehicles	0.05	0.08	0.12	0.02	-0.04	-0.04	0.02	0.12	0.15
	Total Technology-Intensive	0.06	0.09	0.13	0.04	0.02	0.03	0.02	0.07	0.11
	Overall Manufacturing	0.04	0.05	0.07	0.02	0.01	[illegible]	0.02	0.04	0.06

* Imports relative to apparent consumption (apparent consumption = shipments - exports + imports).

Source: Aho and Rosen (1980)

technology sectors were playing an increasingly important role in U.S. exports over this period. The share of all high technology product shipments exported rose from 6 percent in 1964 to 13 percent in 1976. This compares with the increase in overall manufacturing goods which exported 4 percent of shipments in 1964 and 7 percent in 1976. Table IV-24 shows that exports as a percentage of domestic shipments increased dramatically for some of the products.

Net exports as a percentage of domestic shipments did not reveal the same increase in importance, probably because U.S. imports of technology-intensive products grew more quickly than exports.[21] When the commodities are ranked on the basis of this measure, seven technology-intensive products remained in the top twenty throughout the period. They were: medicinal and pharmaceutical products (SITC 541), plastics (SITC 581), power generating machinery (SITC 711), office machines (SITC 714), electric power machinery (SITC 722), aircraft (SITC 734) and scientific instruments (SITC 861). In 1976, explosives (SITC 571) was also ranked among the top twenty industries. The average rank of net exports to shipments for technology-intensive products fell slightly from 27.9 in 1964 to 31.9 in 1976.

An examination of the import penetration ratio (the ratio of imports to appa ent consumption) indicates that there has been rapid growth in imports of technology-intensive products. The average import penetration ratio for the technology-intensive products rose from 2 percent in 1964 to 11 percent in 1976. This compared with an increase in the import penetration ratio for total manufacturing from 2 percent in 1964 to 6 percent in 1976. Among the industries with the largest increases in the import penetration ratio between 1964 and 1976 were: power generating machinery (SITC 711, 6 to 27 percent), inorganic chemicals (SITC 513, 8 to 23 percent), electric apparatus for medical purposes (SITC 726, 6 to 22 percent), road motor vehicles (SITC 732, 2 to 15 percent) and electric power machinery (SITC 722, 1 to 11 percent).

The importance of technology-intensive products is also demonstrated when the structure of trade is examined in detail. A revealed comparative index on an export share basis showed that of the thirty-two commodities in which the United States had a comparative advantage in 1977, eleven of the seventeen high-technology products were included. On the basis of the revealed comparative advantage index derived from the export-import ratio, thirteen of the seventeen

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[21] Between 1962 and 1977, U.S. imports of technology intensive products grew at an average annual rate of 22.8 percent compared with a rate of 14.0 percent for exports.

technology-intensive commodities were among the fifty-three commodities in which the United States revealed a comparative advantage in 1977.

Tables IV-6 and IV-7 in Section 3 above provide another indication of the changes which have occurred in the structure of U.S. trade in high technology products. Comparing those products in which the United States was revealed to have a comparative advantage in both 1962 and 1977, five of the technology-intensive commodities maintained their position on both indexes. They are power generating machinery (SITC 711), office machines (SITC 714), aircraft (SITC 734), scientific instruments (SITC 861) and photographic supplies (SITC 862). By 1977, the United States revealed a comparative advantage in other inorganic chemicals (SITC 514) on both indexes. Explosives (SITC 571), electric power machinery (SITC 722) and electrical medical apparatus (SITC 726), revealed a comparative advantage on an export share basis and maintained it on an export-import ratio basis.

On the negative side, medicinal and pharmaceutical products (SITC 541) and plastics (SITC 581) maintained a comparative advantage on an export-import ratio basis, but each suffered such a deterioration in export market share relative to the overall manufacturing export share that they no longer revealed an advantage on an export share basis. Inorganic chemicals (SITC 513) and road motor vehicles (SITC 732) maintained a comparative advantage on an export share basis but lost their advantage on an export-import ratio basis as both categories registered net imports in 1977. Domestic electrical equipment (SITC 725) was among the categories in which the United States revealed a comparative advantage in 1962 on an export-import ratio basis but not in 1977. Finally, on both indexes, telecommunications apparatus (SITC 724) was not among those in which the United States revealed a comparative advantage in 1977 although it had done so in 1962.

These results suggest that within the class of commodities identified as technology-intensive, the trade performance has been mixed. Some categories have improved their trade performance as others have suffered a substantial deterioration in trade performance. Thus, while exports of technology-intensive products continue to comprise an important and increasing share of U.S. exports and of domestic shipments, trade performance, has been mixed.

6.3 U.S. Trade Performance in Technology-Intensive Goods Relative to Other Major Trading Partners

The United States had the largest value of technology-intensive exports between 1962 and 1976. Table IV-25 presents the value of manufactured goods exports for the

Table IV-25

OECD Exports of Manufactured Goods
(in billions of US dollars)

	1962	1966	1970	1974	1977
Total OECD					
Technology-intensive	18.8	31.0	57.4	130.4	199.5
Non-technology-intensive	43.3	65.4	106.1	259.4	333.7
Total Manufactured Goods	62.1	96.4	163.5	389.8	533.2
United States					
Technology-intensive	5.3	7.9	13.3	28.4	37.8
Non-technology-intensive	8.4	11.0	15.6	34.1	41.3
Total Manufactured Goods	13.7	18.9	28.9	62.5	79.1
Japan					
Technology-intensive	.8	2.1	5.7	16.9	32.1
Non-technology-intensive	3.5	6.8	12.3	35.4	45.4
Total Manufactured Goods	4.3	8.9	18.0	52.3	77.5
France					
Technology-intensive	1.5	2.4	4.5	10.5	17.8
Non-technology-intensive	3.8	5.4	8.8	22.2	30.2
Total Manufactured Goods	5.3	7.8	13.3	32.6	48.0
Germany					
Technology-intensive	3.9	6.1	10.9	26.1	39.1
Non-technology-intensive	7.8	11.7	19.5	52.3	64.4
Total Manufactured Goods	11.6	17.8	30.4	78.4	103.5
United Kingdom					
Technology-intensive	3.1	4.4	5.7	10.7	15.6
Non-technology-intensive	5.6	6.9	9.7	18.8	26.4
Total Manufactured Goods	8.7	11.2	15.4	29.5	42.1
Top-Five Technology-Rich Countries					
Technology-intensive	14.6	22.9	40.2	92.6	142.4
Non-technology-intensive	29.1	41.8	65.8	162.9	207.7
Total Manufactured Goods	43.7	64.7	106.0	255.4	350.1
Other OECD Member Countries					
Technology-intensive	4.2	8.1	17.2	37.8	57.2
Non-technology-intensive	14.2	23.6	40.3	96.5	125.9
Total Manufactured Goods	18.4	31.7	57.5	134.3	183.1

Source: Aho and Rosen (1980)

OECD and the five major "technology rich" member countries for selected years between 1962 and 1977.22/ U.S. technology-intensive exports were valued at 5.3 billion in 1962, over one-third the amount of technology-intensive exports of the top five "technology-rich" countries. By 1977, U.S. technology-intensive exports grew to 37.8 billion but the U.S. share of the top five countries dropped to one-fourth.

Between 1976 and 1977 the United States lost its lead to Germany as the top exporter of technology-intensive products. By 1977, the United Kingdom was surpassed by Japan and France as an important exporter of technology-intensive products. German and Japanese exports together now comprise half of the technology-intensive exports of the five "technology-rich" countries.23/

The remainder of this section briefly summarizes the trade performance of technology intensive goods on the basis of various measures or indicators of trade performance.

6.3.1 Export Concentration

Figure IV-4 shows the concentration of technology-intensive exports for selected OECD countries. The United States has maintained the largest proportion of technology-intensive exports throughout the entire period. In 1977, 48 percent of U.S. exports were technology-intensive compared with only 37 percent of total OECD exports.

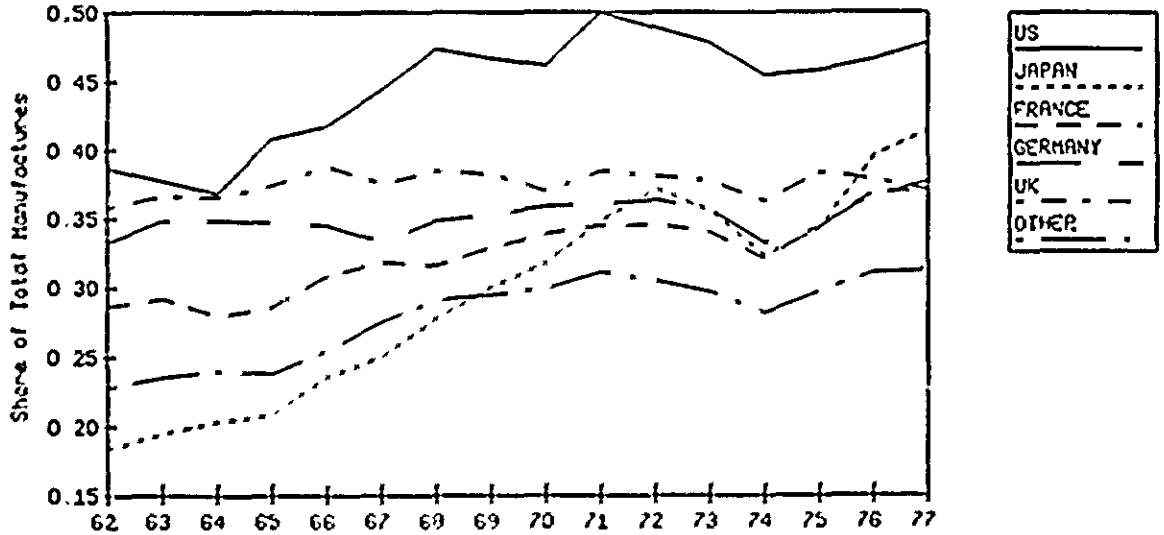
The composition of technology-intensive exports in France, Germany, and the United Kingdom does not differ much from the overall OECD composition of exports. The Japanese export composition is unique because of the substantial changes which took place over the period. In 1962, Japanese exports were largely non-technology-intensive, with technology-intensive products comprising only 18 percent of total Japanese exports.

22/The United States, United Kingdom, Japan, Germany and France accounted for 87 percent of OECD expenditures on research and development in 1975.

23/U.S. technology-intensive exports grew at an average annual rate of 14 percent during 1962-1977, compared to the Japanese average annual growth rate of 28 percent. Throughout each subperiod, Japanese average annual growth of technology-intensive exports was more than twice the U.S. growth rate. French, German, and Japanese growth rates for technology-intensive exports were above the average annual growth for all OECD countries while the growth rates for the United States and the United Kingdom were below the OECD average.

Figure IV-4

Concentration of Technology-Intensive Exports
for Selected OECD Countries



Source: Aho and Rosen (1980)

By 1977 the technology-intensive goods share of Japanese exports rose to 41 percent and surpassed the three Western European countries, but was still below that of the United States. The major shift in Japanese export composition suggests that U.S. producers of technology-intensive products may face intensified competition in the future.24/

6.3.2 Technological Content

The technology content of each country's exports can be represented by calculating an embodiment index using the U.S. R&D intensities. Table IV-26 and Figure IV-5 display the technology embodiment indexes for selected OECD countries over time. U.S. exports became increasingly more technology-intensive throughout the 1960s and into the early 1970s, but the amount of technology embodied in U.S. exports has declined since 1971. Although the European countries have not exhibited rapid growth in the amount of technology embodied in their exports, there has been a major increase in the level of technology embodied in Japanese exports. By 1977, the tecnological content of Japan's exports was second only to the United States.

The fact that U.S. exports still 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 products. But the relative decline caused by the rapid increase in the technology content of Japan's exports suggests that the United States may have experienced an erosion of its competitiveness in those products. The rapid growth in Japan's technology embodiment also suggests that, if current trends continue, the major competition for the United States in technology-intensive products may come from Japan.

Analytically, the most appropriate measure for assessing comparative trade performance and analyzing comparative advantage is to examine net exports on a disaggregated level. Figure IV-6 compares net trade in technology-intensive products

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24/The rapid growth in the share of technology-intensive exports from Japan in recent years, and the official Japanese government (MITI) pronouncements that their industrial strategy for 1980s will target on high technology products, suggest that Japanese exports may become even more concentrated in technology-intensive goods in the years to come.

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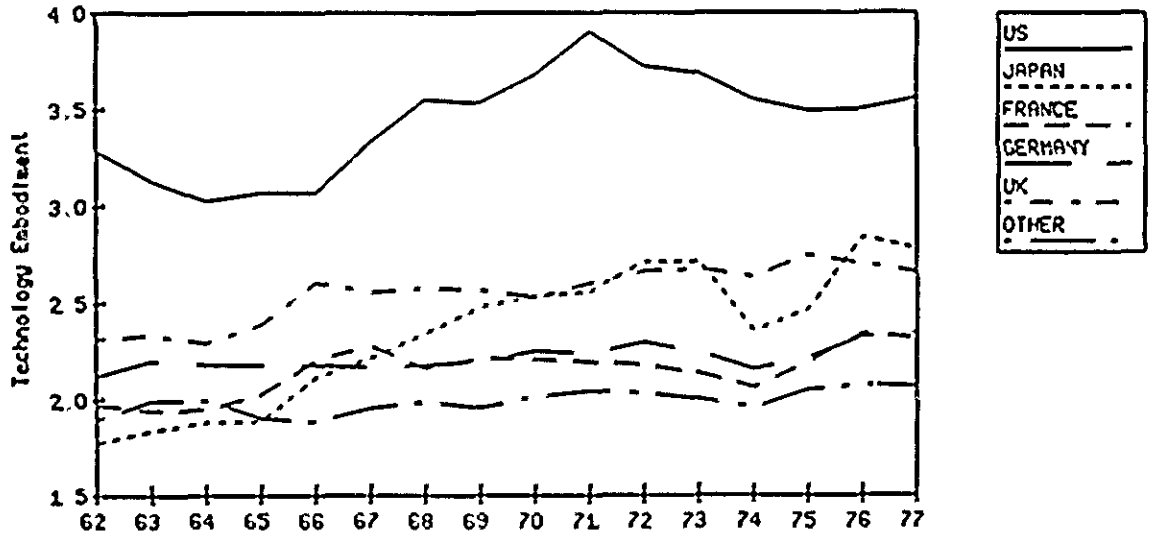
Figure IV-5

Technology Embodiment of Exports
for Selected OECD Countries



Source: Aho and Rosen (1980)

Table IV-26

Technological 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
Other OECD	1.9	1.9	2.0	2.0	2.1
OECD	2.3	2.3	2.5	2.4	2.5

Source: Aho and Rosen (1980).

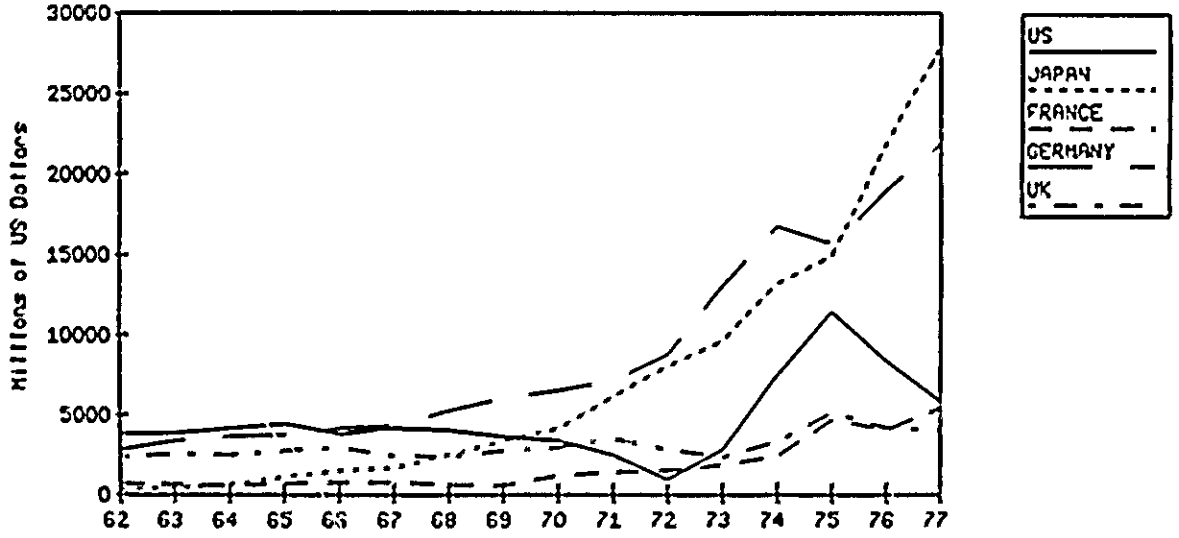
6.3.3 Net Exports

for the five major "technology-rich" countries. Between 1962 and 1977, each of these countries had a trade surplus in technology-intensive products. The most significant change evident in Figure IV-6 is the large increase in Japan's export surplus. Japan's surplus surpassed the U.S. surplus in 1969. Germany also had a large increase in its export surplus, surpassing the U.S. surplus in 1966.25/

25/Changes in the sign of net exports can be a strong indication of changes in comparative advantage. For the United States, one commodity, "other inorganic chemicals" (SITC 514), went from being a net importer to a net exporter. On the other hand, four commodities among the technology-intensive products changed from net exporters to net importers. They were: telecommunications apparatus (SITC 724), inorganic chemicals (SITC 513), domestic electrical machinery (SITC 725), and road motor vehicles (SITC 732). By way of comparison, four technology-intensive products went from import surplus to export surplus in Japan over the period. They were: power generating equipment (SITC 711), office machinery (SITC 714), photographic supplies (SITC 862), and watches and clocks (SITC 864). Germany maintained an export surplus in sixteen of the seventeen technology-intensive commodities over the whole period. Only in aircraft (SITC 734) was Germany a net importer.

Figure IV-6

Technology-Intensive Goods Trade Balance
for Selected OECD Countries



Source: Aho and Rosen (1980)

6.3.4 Export and Import Growth

Another indicator of changes in trade patterns is the ratio of exports to imports in a commodity class.[26] This ratio is a simple way to summarize relative changes in the growth of exports and imports. Figure IV-7 shows this ratio for the five major "technology-rich" countries. Most noteable of the changes shown is the sizeable increase in the ratio for Japan from less than two in 1962 to almost eight in 1977. On the other hand, the other four "technology-rich" countries exhibited a faster growth of imports than exports of technology-intensive products over the same period.

The U.S. ratio of exports to imports in the technology-intensive commodities declined during the 1960s, falling from 3.63 in 1962 to 1.34 in 1970. In 1977 the ratio was 1.18. The depreciation of the dollar appears to have halted this rapid deterioration, but it did not reverse the decline. The United Kingdom's ratio continued to deteriorate after 1970 even though the pound depreciated. France's and Germany's ratios remained largely unchanged between 1970 and 1977.

6.3.5 Export Market Share

Figure IV-8 shows the export market shares in technology-intensive products obtained by the United States, Japan, France, Germany, the United Kingdom, and the other OECD member countries over the period from 1962 to 1977. The United States had the largest export market share in the early 1960s. The figure shows, however, that the U.S. export share fell from 28 percent in 1962 to 23 percent in 1970, and to 19 percent in 1977 when Germany achieved the largest share. At the same time, Japan had a sustained increase in its export share rising from 4 percent in 1962 to 10 percent in 1970, to over 16 percent in 1977. France and Germany had almost constant shares throughout the entire fifteen-year period. The United Kingdom, on the other hand, lost over half of its market share between 1962 and 1977. The other OECD member countries' share increased by approximately 6 percent over this period.

A comparison of changes in export market shares for the individual commodities can be done using Table 2 from Bowen and Pelzman (1980). According to their calculations, the United States had trend declines in ten of the technology-intensive commodities compared with three for Japan, seven for Germany, four for France, and fourteen for the United Kingdom.

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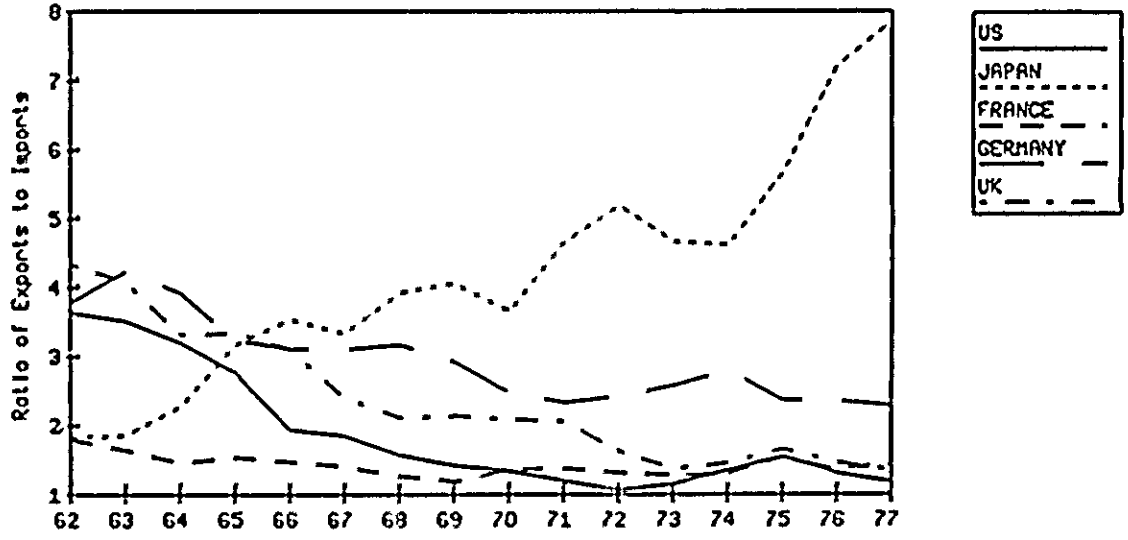
[26] Although the ratio of exports to imports can be indicative of changes in competitiveness, it may also reflect differences in trade barriers. It is difficult to sort out what effect can be attributed to changes in competitiveness and what can be attributed to trade barriers.

Figure IV-7

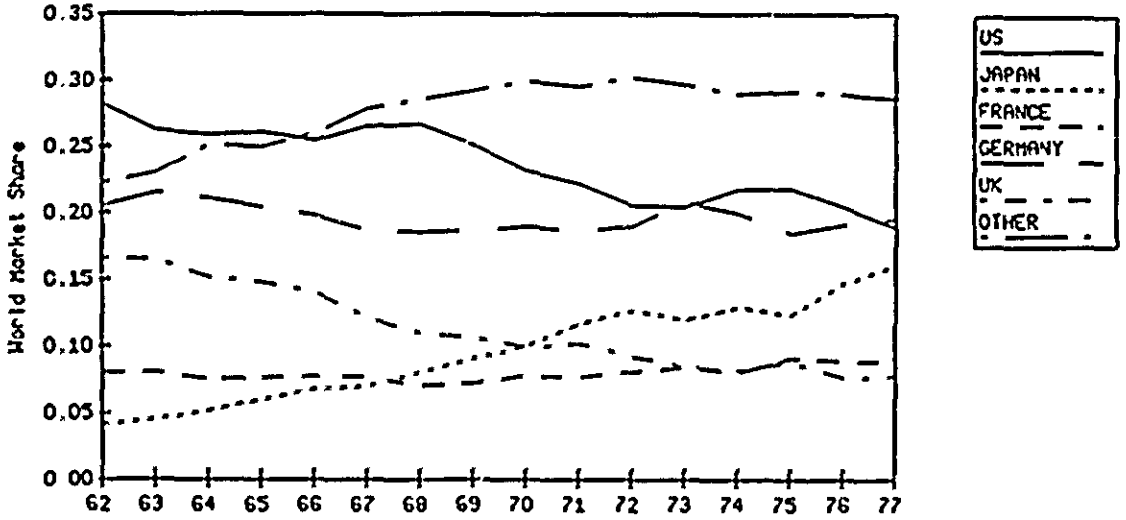
Exports Relative to Imports
for Technology-Intensive Goods
for Selected OECD Countries



Source: Aho and Rosen (1980)

Figure IV-8

World Market Share
of Technology-Intensive Goods
for Selected OECD Countries



Source: Aho and Rosen (1980)

6.3.6 Revealed Comparative Advantage

The decline in U.S. export shares in technology-intensive products is consistent with the overall decline in the U.S. export share in manufacturing over the same period. One method which can be used to analyze the performance of the technology-intensive commodities relative to overall manufacturing is to construct a revealed comparative advantage index for the technology-intensive products as a group. An examination of changes in this revealed comparative advantage index indicates the extent to which technology-intensive products are doing better or worse than overall manufacturing exports.

Figure IV-9 compares the revealed comparative advantage index for all technology-intensive goods for the five technology-rich countries and the other OECD countries. For the United States, the figure indicates that technology-intensive products have consistently maintained a larger export market share than overall manufacturing throughout the entire 15-year period. However, the U.S. ratio remained constant at approximately 1.3, which implies that the technology-intensive products on average did not have export shares increasing relative to overall manufacturing export shares. Apparently the decline in export share for the technology-intensive products was similar to the decline in overall manufactures export share.

Again, the most significant change in Figure IV-9 is the increase in the index for Japan from approximately 0.6 in 1962 to 1.1 in 1977. This implies that technology-intensive products in Japan contributed to the increase in Japan's overall manufacturing export share. In fact, technology-intensive products performed better than Japan's overall manufacturing exports. By 1977, the only two countries which revealed a comparative advantage in technology-intensive products were the United States and Japan.

When the revealed comparative advantage index is used to rank all manufacturing commodities, it is of interest to examine where the technology-intensive commodities stand among all manufacturing commodities.[27] Table IV-27 compares the average rank of the technology-intensive commodities among all manufacturing exports for five different years between 1962 and 1977 for twenty-two OECD countries. Consistent with the earlier results, the United States had the highest average rank of technology-intensive commodities throughout the fifteen-year

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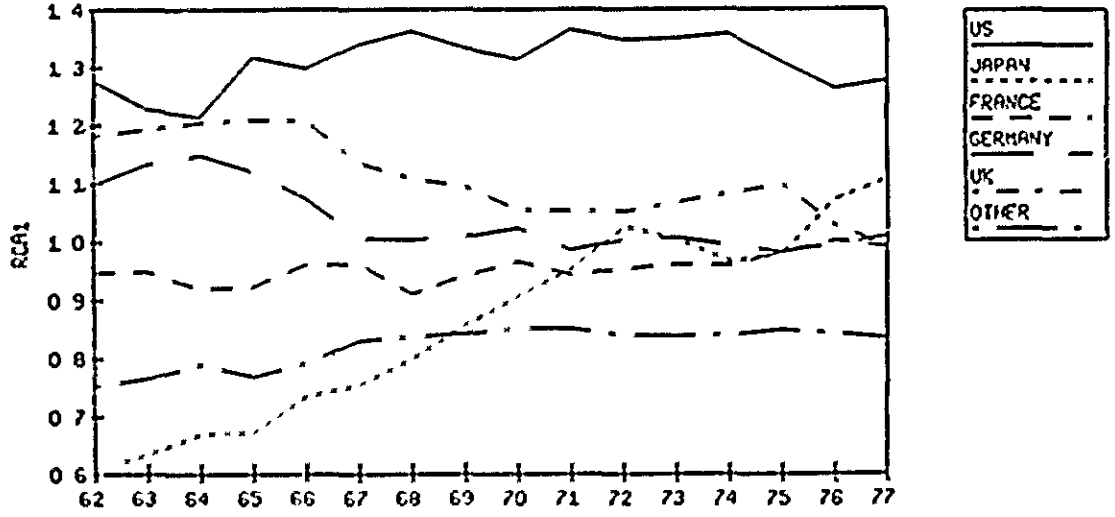
[27] Appendix Table 4 in Aho and Rosen (1980) ranks all of the manufacturing commodities on the basis of the revealed comparative advantage index on an export share basis for the major countries.

Figure IV-9

Revealed' Comparative Advantage Index
for Selected OECD Countries



Source: Aho and Rosen (1980)

Table IV-27

Average Rank of Technology-Intensive Commodities
On a Revealed Comparative Advantage Basis

	1962	1966	1970	1974	1977
United States	33	27	28	29	26
Canada	42	41	40	42	45
Japan	57	54	48	44	42
Australia	54	54	55	47	46
New Zealand	54	54	54	54	64
Austria	63	64	61	62	60
Belgium-Luxembourg	61	62	60	59	57
Denmark	47	52	54	56	57
Finland	54	55	59	58	58
France	51	50	53	54	50
Germany	38	42	42	42	44
Greece	58	54	59	65	67
Iceland	58	60	58	65	67
Ireland	64	57	52	50	49
Italy	44	51	50	50	54
Netherlands	48	47	46	46	43
Norway	53	55	53	53	52
Portugal	61	61	59	50	52
Spain	59	61	62	62	62
Sweden	42	45	43	40	43
Switzerland	40	45	45	46	47
United Kingdom	43	40	46	44	44

Source: Aho and Rosen (1980).

period. Furthermore, the average rank increased from 33 in 1962 to 28 in 1970 to 26 in 1977. The most remarkable development, however, has been the increase in the average rank of Japan from 57 in 1962 to 42 in 1977. In 1977, Japan had the second highest rank among all OECD countries. France and the United Kingdom had relatively constant ranks while Germany's average rank decreased from 38 in 1962 to 44 in 1977.

It is also of interest to examine the trend in the revealed comparative index for each of the commodities for each of the major countries. Since the index normalizes the individual commodity export share by the manufacturing export share, a statistical analysis of its trend can identify those commodities that performed better than overall manufacturing and those that performed worse. By controlling for changes in the growth of overall manufacturing, differences in individual industry performance can be identified. This is particularly important for the United States where the overall manufacturing export share has declined.

The results of the trend analysis are contained in Table 11 in the background paper by Aho and Rosen (1980). For the United States, five of the technology-intensive commodities exhibited significant negative trends relative to manufacturing. The declines were in plastics (SITC 581), domestic electrical equipment (SITC 725), telecommunications apparatus (SITC 724), inorganic chemicals (SITC 513) and medicinal and pharmaceutical (SITC 541). Nine of the other technology-intensive commodities for the United States were performing significantly better than overall manufacturing.

For Japan, ten commodities exhibited significant positive trends and four had significant negative trends. This is noteworthy because Japan's overall manufacturing export share increased from 7 to 15 percent between 1962 and 1977. The ten significant increases confirm that technology-intensive products made a major contribution to Japan's overall manufacturing export share increase.

Among the other countries, France had seven significant positive and two significant negative trends, Germany had two positive and six negative, and the United Kingdom had seven positive and six negative. The other OECD countries had six positive and seven negative. Except for France, the mixed results for these countries suggest that the technology-intensive commodities have, on average, performed as well as total manufacturing.

On the other hand, it appears that the technology-intensive products in Japan and France have contributed positively to each country's overall manufacturing share. This is also demonstrated by the increase in the revealed comparative advantage index for the technology-

intensive products as a group for both countries. The United States had a greater number of significant positive trends but since its overall index was constant, the negative trends must have balanced off the positive trends. Nonetheless, the large number of positive trends suggests that technology-intensive products are more important for France, Japan and the United States.

6.3.7 Constant Market Share Analysis[28]

A simple way to interpret constant-market-share (CMS) analysis is to ask the question, if the United States had maintained its 1962 share of technology-intensive products, how would actual 1970 exports compare with the hypothetical? Excluding exports to the United States, the United States had a 36 percent share of OECD technology-intensive exports in 1962. Had that share been maintained, the United States would have exported $14.5 billion in 1970. Actual U.S. exports were $13.3 billion, so that the United States had a deficiency of $1.2 billion or 9.2 percent. For the period from 1970 to 1977, if its 28.1% market share had been maintained, then the United States would have exported $47 billion of technology-intensive products, when in fact actual exports in 1977 were only $37.8 billion which represented a deficiency of $9.2 billion or 24 percent.

On a disaggregated basis, Tables IV-28 and IV-29 present deviations from a constant market share norm for the exports of the five technology-rich countries to the entire world market area for the two subperiods, 1962-69 and 1970-77.

Between 1962 and 1969, the United States had actual exports below the constant share norms in ten products, one was exactly at the norm and six were above the norm. The largest negative deviations were in telecommunications apparatus (SITC 724), medicinal and pharmaceutical (SITC 541), plastics (SITC 581) and domestic electrical equipment (SITC 725). The largest positive deviations were in electric medical apparatus (SITC 726), power generating equipment (SITC 711) and watches and clocks (SITC 864).

Japan had positive deviations in sixteen of the seventeen commodities. In contrast, the United Kingdom had negative deviations in fourteen of the seventeen commodities.

Between 1970 and 1977, (see Table IV-29) the United States experienced relative losses in eleven of the technology-intensive commodities. The largest losses were a

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28/For a CMS analysis for each of the manufacturing categories, including the technology-intensive categories, see Bowen and Pelzman (1980).

Table IV-28

Deviations From Constant-Market-Share Norms
1962-1969

Market Area:
World

	RELATIVE LOSS					RELATIVE GAIN				
SITC	United States	Japan	France	Germany	United Kingdom	United States	Japan	France	Germany	United Kingdom
724	0.60		0.83	0.89	0.54		2.09			
714			0.96	0.95	0.94	1.08	14.55			
734	0.91		0.87				5.54		4.27	1.76
541	0.63	0.97			0.86			1.16	1.36	
726				0.95	0.49	1.46	3.68	1.40		
711				0.90	0.62	1.35	1.91	1.05		
514			0.93		0.55	1.21	2.43		1.01	
864				0.90		1.65	6.09	1.26		1.19
513	0.96		0.95	0.61	0.70		1.39			
862					0.92	1.11	2.53	1.19	1.05	
861	1.00			0.85			1.37	1.05		1.04
571	0.85		0.97		0.77		1.23		1.01	
581	0.66			0.97	0.69		2.34	1.10		
722	0.99			0.96	0.61		2.28	1.07		
725	0.52		0.77	0.78	0.54		2.48			
723	0.98		0.93	0.92	0.68		1.87			
732	0.94		0.74	0.79	0.49		2.69			

Relative Loss = Ratio of actual to predicted exports less than or equal to 1
Relative Gain = Ratio of actual to predicted exports greater than 1

Source: Aho and Rosen (1980)

Table IV-29

Deviations From Constant-Market-Share Norms
1970-1977

Market Area:
World

	RELATIVE LOSS					RELATIVE GAIN				
SITC	United States	Japan	France	Germany	United Kingdom	United States	Japan	France	Germany	United Kingdom
724	0.86				0.82		1.13	1.23	1.00	
714	0.88						1.28	1.16	1.09	1.12
734	0.91	0.26						1.34	3.25	1.11
541	0.86	0.91		0.92	0.96			1.08		
726				0.75		1.20	1.33	1.32		2.82
711	0.77				0.83		2.15	1.42	1.31	
514			0.90		0.79	1.03	1.26		1.14	
864				0.75	0.94	2.65	2.28	1.21		
513	0.76	0.97	0.94				1.00	1.02	1.03	1.15
862	0.97		0.95	0.89	0.83		2.33			
861	0.76			0.95	0.78		1.48	1.07		
571		0.33		0.84	0.80	1.33		1.24		
581	0.71	0.77			0.87			1.26	1.01	
722	0.97			0.95	0.91		1.52	1.11		
725					0.67	1.15	1.62	1.48	1.09	
723					0.81	1.32	1.21	1.02	1.09	
732	0.89			0.95	0.63		2.10	1.10		

Relative Loss = Ratio of actual to predicted exports less than or equal to 1
Relative Gain = Ratio of actual to predicted exports greater than 1

Source: Ahó and Rosen (1980)

reversal in power generating equipment (SITC 711), a repeat in plastics (SITC 581), in scientific instruments (SITC 861) and in inorganic chemicals (SITC 513). The largest relative gains were in watches and clocks (SITC 864), explosives (SITC 571) and equipment for distributing electricity (SITC 723). Again Japan had the largest number of relative gains (twelve) and the United Kingdom had the largest number of relative losses (thirteen products).29/

6.4 A Comparison of Competitiveness Indices For U.S. Trade in Technology-Intensive Commodities

In the background paper by Aho and Rosen (1980), a detailed comparison of four different indicators of competitiveness in technology-intensive products was made.30/ Three were derived from a statistical analysis of trends of the revealed comparative advantage index on an export share basis, of net exports relative to shipments, and of the import penetration ratio (imports to apparent consumption) normalized by the overall manufacturing import penetration ratio. The fourth index was based on the residual from a CMS analysis for two time periods, 1962-69 and 1970-77. The CMS analysis has the advantage of separating out performance over the two different time periods, but the disadvantage of not being able to attach statistical significance to the deviations between actual exports and the predicted exports based on the CMS norm.

For several of the commodities, the four indicators told a consistent story. The strongest positive performances were recorded by other inorganic chemicals (SITC 514), photographic supplies (SITC 862), scientific instruments (SITC 861) and explosives (SITC 571). Office machines (SITC 714) and aircraft (SITC 734) also showed fairly strong performances except for a rapid increase in the import-penetration ratio in office machines (SITC 714) and the inability to maintain a CMS norm for aircraft (SITC 734).

29/These results are consistent with earlier CMS results which showed that the United Kingdom always had the worst performance whereas Japan always had the best performance. Aho and Carney (1978), in their CMS analysis for eleven countries over the period from 1964 to 1976, found that Japan had the largest positive competitive residual and that the United Kingdom had the largest negative competitive residual in all periods. Similar to the results reported here, the United States was between those two extremes but closer to the United Kingdom than to Japan.

30/Table 14 in Aho and Rosen (1980) summarizes four different indicators of changes in trade performance.

Four commodities displayed a significantly positive trend in export market share relative to the overall manufacturing share but showed weak or mixed results using the other indices. These commodities were: equipment for distributing electricity (SITC 723), watches and clocks (SITC 864), power generating machinery (SITC 711) and electrical apparatus for medical purposes (SITC 726).

As an example of the mixed results, electrical apparatus for medical purposes (SITC 726) had a significantly positive trend in the RCA index and exceeded the CMS norm in both subperiods but had a significantly negative trend in the import-penetration ratio. That is, imports of electrical apparatus for medical purposes (SITC 726) as a percentage of apparent consumption were increasing more quickly than the percentage for overall manufacturing. This is in conflict with the observed positive performance in export markets. One possible explanation is that the category consists of heterogeneous commodities and that the United States is doing well exporting some of these goods but is simultaneously experiencing increased import competition in others.31/

Another commodity with mixed results was electric power machinery (SITC 722). This commodity showed a significantly positive trend in the net exports to shipments ratio but also significant increases in the import penetration ratio. Again, it is possible that the category consists of heterogeneous commodities.

Two other categories that displayed mixed results but deserve separate comment were medical and pharmaceutical products (SITC 541) and plastics (SITC 581). Both had such significant drops in their RCA index that they were no longer among the commodities in which the United States revealed a comparative advantage in 1977. However, the domestic market in both commodities was not penetrated any more than manufacturing in general, suggesting that the industries are still competitive in the domestic market. The large declines in export shares could be a leading indicator of future competition at home.

31/Since the category consists of newer equipment such as laser equipment and body scanners which represent the frontier of technology in medical science and also consists of more conventional x-ray equipment, it is possible that U.S. exports are doing well in the newer equipment but that the import competition may be occurring in the older equipment. This hypothesis is beyond the scope of this paper, but research on intra-industry trade patterns in technology-intensive products would make a useful contribution. See footnote 3.

Four commodities among the seventeen technology-intensive commodities had consistently poor performance. They were, from poor to poorest: inorganic chemicals (SITC 513), road motor vehicles (SITC 732), domestic electrical equipment (SITC 725) and telecommunications apparatus (SITC 724). All four had significant negative trends in net trade relative to shipments reflecting the fact that by 1977 the United States had become a net importer in each category. All four also had export market shares declining more quickly than the decline in the overall manufacturing export share and all four had significant increases in the import penetration ratio.

In sum, U.S. trade performance has deteriorated in some technology-intensive commodities. But at the same time trade performance continues to be strong in other products including scientific instruments (SITC 861), other inorganic chemicals (SITC 514) and less so in office machines (SITC 714) and aircraft (SITC 734). However, in almost no category, except for other inorganic chemicals (SITC 514), did the United States have a consistently strong competitive performance.32/ Even in office machines (computers) (SITC 714) and aircraft (SITC 734) there was evidence of significant increases in import penetration and some deterioration in export market share. Thus, it seems apparent that the United States has suffered some deterioration of its competitive position in technology-intensive products.

6.5 U.S. Performance in Technology-Intensive Trade in Common Third Markets

As a check on the consistency of the preceding analysis, this final subsection examines relative trade performance in common third market areas where all trading partners face similar trading conditions. This is perhaps the best indicator of changes in competitiveness. Table IV-30 presents export market share data for technology-intensive goods in developed and developing country markets. In 1962, U.S. technology-intensive exports constituted 20 and 46 percent of total OECD exports to developed and developing countries, respectively. By 1970 the U.S. export share in developing countries had dropped to 31 percent. Finally, in 1977, U.S. technology-intensive exports consisted of 17 and 25 percent of total OECD exports to developed and developing countries.

32/It is interesting to note that the trade performance of inorganic chemicals (SITC 513) and other inorganic chemicals (SITC 514) are exactly the opposite. This possibly reflects the classification scheme under which new commodities tend to be put in the "other" category until their widespread use justifies a separate category.

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Table IV-30

EXPORT MARKET SHARES FOR TECHNOLOGY-INTENSIVE GOODS
IN DEVELOPED AND DEVELOPING COUNTRIES

	1962	1966	1970	1974	1977
UNITED STATES					
DC	19.6	23.2	21.6	20.0	16.9
LDC	45.8	34.2	31.4	29.4	25.4
WORLD	28.3	25.5	23.2	21.8	18.9
JAPAN					
DC	3.1	5.2	8.4	11.3	13.9
LDC	6.0	10.7	15.2	18.2	22.2
WORLD	4.2	6.8	10.0	13.0	16.1
FRANCE					
DC	8.2	7.4	7.5	7.7	8.7
LDC	7.4	8.4	8.5	8.9	9.3
WORLD	8.1	7.8	7.8	8.0	8.9
GERMANY					
DC	25.7	22.4	20.9	21.4	21.5
LDC	11.1	12.1	11.8	14.7	13.8
WORLD	20.6	19.8	19.0	20.0	19.6
UNITED KINGDOM					
DC	17.3	13.8	9.4	8.0	7.4
LDC	15.4	15.2	12.2	9.1	8.8
WORLD	16.6	14.1	10.0	8.2	7.8

DC = Developed Countries

LDC = Less Developed Countries

Source: Aho and Rosen (1980)

While the U.S. share of the developed countries' markets declined only slightly (3 percent), the United States lost almost half of its export market share in developing countries over the fifteen-year period.

This decline in the U.S. share of world markets in technology-intensive goods contrasts with the large growth in Japan's share of the world markets. In 1962, Japan's exports comprised 3 and 6 percent of technology-intensive exports to developed and developing countries respectively. The Japanese export share of technology-intensive goods to developing countries doubled between 1962 and 1970. By 1977, Japanese export shares in both developed (14 percent) and developing (22 percent) countries were almost equal to the U.S. shares of those markets. (The Japanese share of technology-intensive exports to developing countries tripled over the 15 year period.)33/

Germany and France maintained relatively constant shares of the developed and developing countries' markets. The United Kingdom's share of both developed and developing countries' markets declined throughout the period.

The comparison of most significance here is in the developing countries where U.S. exports face the same market conditions as those faced by its major competitors. Even following the exchange rate realignments which have occurred since 1971, Japan increased its share of the developing country market by six percent between 1971 and 1977 (16 to 22 percent). Germany increased its share by three percent (11 to

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33/The declines in the U.S. market shares and increases in the Japanese market shares in technology-intensive exports are magnified in the total manufactured goods market shares data. The U.S. share of manufactured exports to developed countries fell from 17 percent in 1962 to 13 percent in 1977, while the U.S. share of exports to developing countries fell from 36 percent in 1962 to 21 percent in 1977. Over this same period the Japanese share of manufacturing exports grew from 5 to 10 percent in developed countries and from 11 to 25 percent in developing countries. The Japanese share of manufactured exports to developing countries was greater than the U.S. share for four the years between 1972 and 1977. Since a large proportion of Japan's exports go to the United States, it is interesting to compare the trade performance of the United States and Japan excluding exports to one another. In high technology products, the U.S. export share of all third market areas fell from 27.7 percent in 1962 to 22.2 percent in 1970 to 18.4 percent in 1977. Japan's share rose from 3.3 percent in 1962 to 7.2 percent in 1970 to 12.4 percent in 1977.

14 percent). The United States, on the other hand, lost five percent of its market(30 to 25 percent). France's market share was constant, while the United Kingdom's share decreased by over four percent (13 to 9 percent).

Thus, the United States continues to lose ground to Japan and Germany even in many of the high-technology products in common third market areas. This is occurring even though the dollar has depreciated relative to the mark and the yen. Between 1971 and 1977, the dollar depreciated by 24 percent versus the yen and 36 percent versus the mark. Even when the exchange rate changes are adjusted for changes in national price levels, the real exchange rate for the dollar fell by 16 percent versus the mark and 3 percent versus the yen. Thus the increases in shares obtained by Japan and Germany could not be explained on the basis of price factors alone, particularly since Japan's share increased steadily throughout the seven-year period dipping only once (1975).[34]

6.6 Conclusions

These results confirm the hypothesis that the United States has historically had a comparative advantage in technology-intensive products. In recent years, however, 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 a trade surplus in technology-intensive products. Most of the other measures used to identify the commodities in which the United States has had a comparative and competitive advantage show that the technology-intensive products have above average trade performance.

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[34] Aho and Rosen (1980) also examine deviations from CMS norms for the individual technology-intensive commodities for each of the five major country's exports to the newly industrialized countries (NICs), one of the fastest growing market areas. They found that Japan had a positive deviation and the United States had a negative deviation in several commodities which were strong overall for the United States including office machines (SITC 714), power generating equipment (SITC 711), other inorganic chemicals (SITC 514), photographic supplies (SITC 862), and scientific instruments (SITC 861).

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 embodiment 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 second behind Germany whose share had remained roughly constant since 1962. Between 1962 and 1977, 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 of Japan and Germany were present even after 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 increase in their import penetration ratio was more rapid than for manufacturing as a whole. On a net export basis, five 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.

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 1962-1977 period. Japan now has the largest trade surplus in technology-intensive products. In the 1960s, Japan's trade performance in high-technology products ranked low among the OECD countries. Since then, Japan has risen to second behind the United States as an exporter of technology-intensive products. The amount of technology embodied in Japan's exports 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 still remain more technology-intensive than exports from other major industrialized countries supports the view 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 indicate that Japanese competitiveness in technology-intensive goods has been

increasing. As a result, Japan has joined the United States in having a comparative advantage in technology-intensive products. Therefore, competition between the two countries is likely to increase in the future as both countries specialize in exporting similar products.

7. U.S. PARTICIPATION IN WORLD AGRICULTURAL TRADE[35/]

7.1 Introduction

In the past decade, U.S. agricultural exports, particularly exports of grains and oilseeds, have grown substantially. The recent growth of agricultural exports can be attributed to at least two major factors which are addressed in this paper. The first is the comparative advantage of the United States in producing a number of agricultural commodities. Natural resources (including land, climate, and weather), the human resource base, and marketing infrastructure are all elements which give the United States its comparative advantage in agriculture. The second factor contributing to the growth in agricultural exports arose from the policy environment and events of the seventies which, on balance, favored the United States. Although both factors are considered in this report, the latter is primarily responsible for increasing U.S. agricultural exports in the past decade.

7.2 Comparative Advantage

The major factor underlying U.S. agricultural comparative advantage is the great natural soil resource together with highly favorable climatic conditions for grains and oilseeds production. Although this is the foundation, investments made by society in agricultural research and extension services, as well as in rural education, have been of major importance for the full utilization of U.S. land abundance.

The agricultural research system responded to the needs of the agricultural sector by developing means for conserving the most expensive inputs and using intensively the cheapest inputs. Prior to the closing of the frontier in the late 19th century, agricultural research was focused on developing machinery that helped farmers both to save labor and to greatly expand cultivated area. With the closing of the frontier and rise in the price of land relative to other production factors, the research focus shifted towards land-saving technology which

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35/For a more detailed discussion of the material presented in this section see the background paper prepared by the Department of Agriculture (1980).

raised crop yields through the breeding of higher yielding varieties (e.g. hybrid corn) and increased fertilization. (In fact, as late as 1930 there was no significant difference in coarse grain yields per acre between South Asia and the United States!) As a result of over a century of agricultural research, U.S. agricultural productivity has risen at a rate which has been the envy of most other countries of the world. In spite of a shrinking farm labor force employed, and a relatively constant or diminishing land area, total agricultural output has grown because of the rapid increase in use of purchased inputs and machinery embodying the improved technology that flows from research efforts.

This continuing evolution in farming techniques has been enhanced by investments made in rural education by local communities. The high level of literacy of the U.S. farm population, compared with other countries, has permitted rapid diffusion of new technologies into farming, and has improved the management and decisionmaking skills of ensuing generations of farmers. Research shows that differences in agricultural productivity among countries are one-third explained by the land endowment and labor force, one-third by research and education, and one-third by capital and purchased inputs. All three of these categories have received relatively strong emphasis in the United States.

These factors account for the comparative advantage of the United States in grains and soybeans production, but they do not account entirely for the strong performance of U.S. agricultural exports in the last decade. In addition to increased import demand due to poor crops, other major determinants include the numerous agricultural product and input price programs and the associated international trade policies implemented to validate these domestic programs.

7.3 Domestic Agricultual Policies

Domestic agricultural policies appear to respond largely to the requirements of two broad constituencies, agricultural producers and consumers. Policies designed to maintain or improve producer incomes frequently result in high product prices that stimulate production and the imposition of import restrictions on the affected commodities and their substitutes. If surpluses develop, export subsidies or incentives are likely to be adopted. The developed economies of Western Europe, North America, and Japan are the primary users of such producer-oriented policies.

Countries that have adopted policies designed primarily to favor consumers usually fix the retail price of one or more basic food items at below-market levels (e.g., bread in Egypt, wheat in Pakistan, rice in Indonesia, and livestock products in Poland). Such countries often attempt to hold down the cost of

consumption subsidies by maintaining low producer prices for the affected commodities. The result is pressure for larger imports (or lower exports) because domestic consumption grows faster than production. Consumer-oriented policies are the most prevalent in some of the developing economies.

Both producer and consumer-oriented policies distort market prices and divert the spatial distribution of global production away from its relatively least-cost location by giving false price signals to producers. Likewise, consumption patterns are also distorted--although probably to a lesser degree--as consumers in various countries adapt their diets to distorted price signals.

The market share analysis of world agricultural trade that follows should help explain the forces at work in each of the major trading countries important for U.S. agricultural exports. Future policies designed to improve the position of U.S. agricultural exports will have to operate within this complex of world market distortions.

7.4 Scope of Discussion

This subsection examines the market shares of the United States and its major competitors for five leading U.S. agricultural export commodities. It also presents market shares of major importers of those five exports and briefly discusses significant factors contributing to changes in both export and import shares over the past 15 years. The discussion of export and import policies, weather conditions, and other influencing elements is commodity and country specific. A discussion of U.S. export promotion policies is contained in the report submitted under Section 1110a.

This subsection also examines the impact of trade barriers on U.S. exports and the export-enhancing effect of concessions and regulation of trade practices arrived at in the Multilateral Trade Negotiations (MTN). It also indicates markets and commodities in which the United States has the potential to become more competitive.

7.5 Major U.S. Agricultural Exports

The United States accounted for 18 percent of the value of all world agricultural exports in 1978 with sales of agricultural products comprising 22 percent of total U.S. exports. In the past 20 years the United States has been particularly successful in five major world agricultural markets: soybeans, coarse grains, wheat, cotton and rice. This study examines the competitive position of the United States relative to other major agricultural exporters in these five markets for the 1960-1979 period.

The size and/or the rate of growth of a country's share of the total market is often used as an indication of competitiveness. World market shares calculated on the basis of trade volume are used in this subsection to evaluate the competitive position of the United States. The major policies, economic trends, and technical factors affecting the U.S. share and the size of each market are discussed as well as the prospects for change in these markets in the 1980's.

7.5.1 Soybeans

World trade in soybeans and soybean products has changed radically in the past 20 years. The U.S. share of world soybean trade averaged about 90 percent in the late sixties and early seventies with the remainder of the market divided between Brazil and the People's Republic of China (PRC). The PRC has ceased to be a significant exporter whereas Brazil and recently Argentina and Paraguay have responded to high world prices by expanding soybean area planted and carving out larger shares of the market.

The plots of world total, U.S., and combined Brazilian and Argentine exports in Figure IV-10 implicitly show the changes in market shares. World total and U.S. soybean exports are almost identical until 1971 when they begin to diverge as a result of significant Brazilian (and later Argentine) exports.

Figure IV-10 also illustrates the four fold increase in the size of the total world soybean market in the last 20 years. The absence of soybean import restrictions along with high levies on alternative feed rations and the rising consumer demand for livestock products have resulted in a rapid growth in soybean purchases by the nine European Community (EC) members and Japan which imported 59 and 18 percent, respectively, of world soybean trade in 1978.

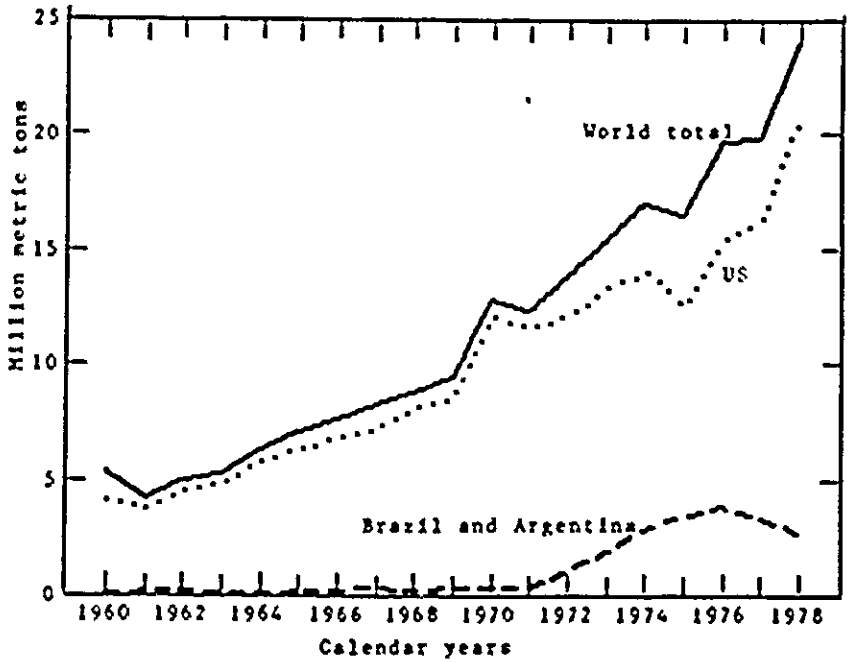
Four significant factors affecting the U.S. share of future world soybean exports are:

-- Area Expansion. If foreign soybean producers, particularly Brazil, Argentina and Paraguay, can substantially expand the area planted in soybeans, the U.S. share of world exports may be further eroded. Area expansion by the United States is possible but it may come at the expense of corn or cotton production.

-- Exchange Rates. In the past, the expansion of world soybean trade has partly been a function of the rate of depreciation of the U.S. dollar relative to the currencies of major importers. A depreciated dollar meant cheaper soybean imports for Japan and the EC, stimulating larger purchases. An increase in the value of the dollar would raise soybean and soybean product prices in major markets thus dampening demand.

Figure IV-10

World Coarse Grains Exports, 1960-1979



Source: Department of Agriculture (1980)

-- Expansion of Trade in Other Oilseeds. Improved varieties and increased supplies of other oilseed and protein meals could substitute for soybean meal in livestock feeds.

-- Change in Trade Policies. The major soybean importers, Japan and the EC, currently have no significant restrictions on imports of soybeans. More restrictive trade policies by major importers would have a large impact on the world soybean market.

7.5.2 Coarse Grains

Corn, barley, and grain sorghum are the major coarse grains traded. All of these grains can be used for livestock feeds. In 1979, corn accounted for about 70 percent of all coarse grains traded on international markets followed by barley (16 percent) and grain sorghum (12 percent).

The United States responded to the high grain prices of the early seventies by bringing large areas into production, much of which was devoted to corn. Many of the other coarse grains exporters--South Africa, Thailand, France, and Australia--lacked additional area for expansion while Argentina was constrained by inadequate transportation and port systems. Canada suffered from limitations in both crop area and its marketing system. The United States, therefore, was able to increase its share of the world coarse grains market from 45 percent in 1960 to 67 percent in 1979 whereas the combined share of major competitors fell from 33 to 26 percent in the same time span.

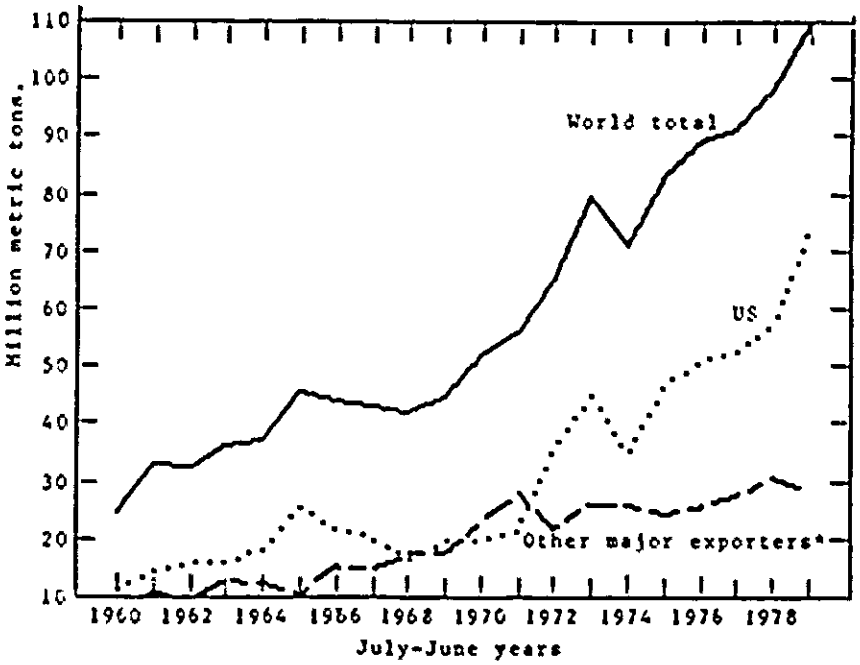
The volume of international trade in coarse grains has increased rapidly in the past 8 years and, as indicated by Figure IV-11, the United States has been able to capture most of the increase. Rising incomes in Japan, Western Europe, and middle-income developing countries along with policies to increase meat consumption in the Soviet Union and Eastern Europe are responsible for the rising demand for livestock products for which coarse grains are a major input.

In addition to the impact resulting from market development efforts, the volume of future coarse grains trade and the U.S. share of the world market in the 1980's are likely to hinge on five developments:

-- The ability of the United States to increase corn production in the seventies was largely the result of the expansion of area planted. Increased production in the eighties is likely to require management and technological improvements which will increase yields.

Figure IV-11

World Coarse Grains Exports, 1960-1979



* Includes Argentina, South Africa, Thailand, Canada, France, and Australia

Source: Department of Agriculture (1980)

-- None of the United States' competitors has been able to significantly increase its market share over the past 8 years. However, if Argentina can improve its transportation and port facilities and if Thailand can provide fertilizers and other inputs to increase yields, the shares of these countries could increase in the next decade.

-- Depreciation of the dollar relative to the currencies of importing countries, particularly Japan, could be a factor in increasing the demand for coarse grains imports.

-- A large part of the increase in coarse grains import demand in the past 8 years resulted from the Soviet Union's decision to import grain to meet the demands of planned livestock herd expansion. The United States captured the major share of this increase because of market development efforts and large available supplies. The current rift in US-Soviet relations may spur the Soviet Union to develop new sources of grain supplies.

-- Rising real incomes, particularly in certain centrally planned and middle income developing countries, is likely to be the driving force behind further increases in coarse grains import demand in the next decade.

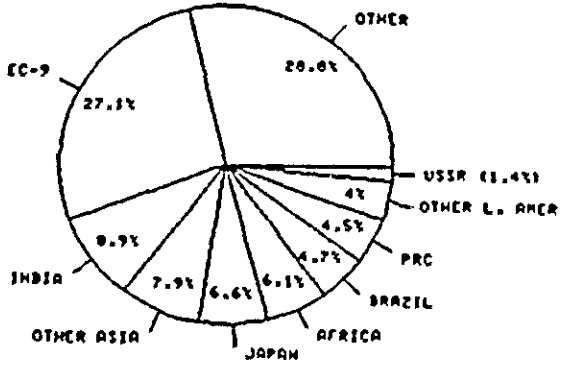
7.5.3 Wheat

The rankings and the market shares of the five major wheat exporters have changed very little over the past 20 years. Increases in country exports have tended to keep pace with the expansion of the market. The United States is the world's largest wheat exporter with 41 percent of the export market in the 1975-79 five-year period, followed by Canada (18 percent), Australia (12 percent), France (11 percent) and Argentina (5 percent).

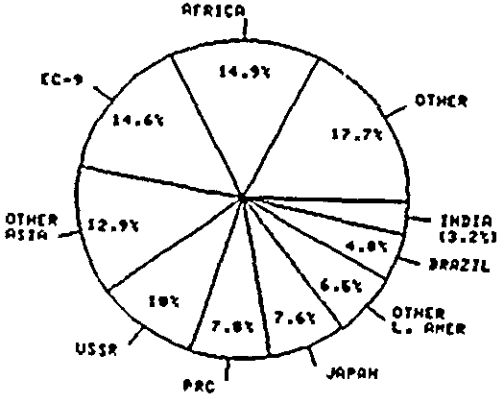
The major changes in the world wheat market have come on the import side and are illustrated in Figure IV-12. The European Community and India have declined in importance as policies designed to increase wheat production have caused their respective import shares to fall from 27 and 9 percent in 1960 to 15 and 3 percent in 1975-79. On the other hand, the Soviet Union and the continent of Africa (particularly Egypt) have increased their shares of the world market from 1 and 2 percent in 1960 to 10 and 6 percent, respectively, in 1975-79. The change in the Soviet share is a result of a policy change to increase grain imports while the African share increase is a consequence of population increases and rising incomes. The shares of two other major wheat importers--Japan (8 percent) and Brazil (5 percent)--have changed very little in the past 20 years.

Figure IV-12

WORLD WHEAT IMPORT MARKET



1960
VOLUME=43 MMT



1975-79 AVERAGE
VOLUME=77 MMT

Source: Department of Agriculture (1980)

The U.S. share of the world wheat market is affected by many of the same factors which affect the U.S. position in the world coarse grains market. There are, however, two important differences. First, the response of wheat consumption to changes in income and prices is much smaller than the response of coarse grains. Second, wheat production, pricing, and trade around the world are subject to more policy restrictions than are coarse grains. The combination of these factors results in a world wheat market in which adjustments to shifts in supply or demand are generally accompanied by relatively larger price movements than in the coarse grains market.

Aside from promotional efforts, three factors are likely to be important determining the level and export shares of the world wheat market in the eighties.

-- Developing countries, particularly in Africa, should become relatively more important purchasers of wheat on the world market as population expands and incomes move above subsistance levels.

-- A continuation of the U.S. suspension of grain sales to the Soviet Union could encourage the latter to substitute imports of wheat for coarse grains because of the greater relative availability of alternative sources of wheat supplies. The total volume of world wheat trade and world prices would increase as a result.

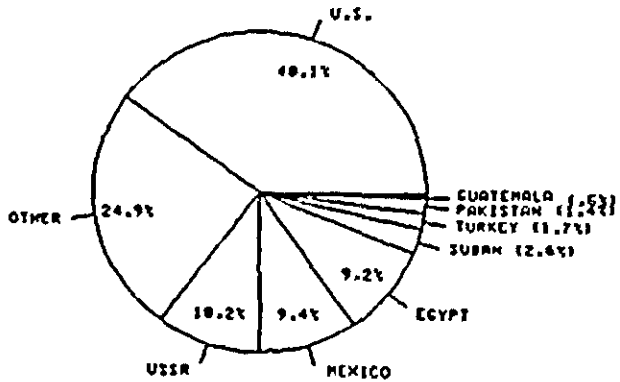
-- If Argentina, Australia, and Canada are successful in removing some of the limitations on their transportation and port storage capacity, an increase in their shares is possible.

7.5.4 Cotton

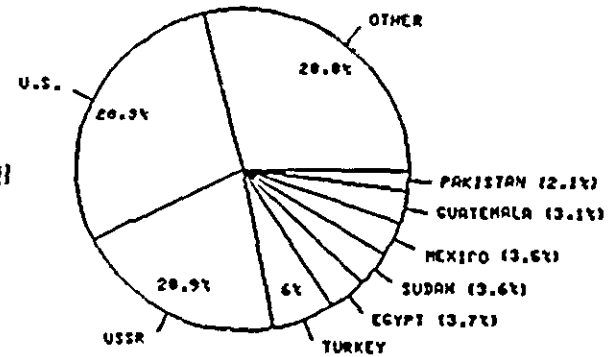
Eight nations account for about three-fourths of the world's cotton exports. These nations, ranked in importance by their average share of the world cotton export market from 1975 to 1979, are: the United States with 28 percent; the Soviet Union, 21 percent; Turkey, 6 percent; Egypt, Mexico and Sudan, 4 percent each; Guatemala, 3 percent; and Pakistan, 2 percent. Since 1960 these eight nations' total share of the world cotton market has been fairly constant, although the rankings have changed slightly as shown by the comparison between 1960 and the average 1975-79 market shares in Figure IV-13. The shares of the United States, Mexico, and Egypt have declined, whereas those of the Soviet Union, Turkey, and the Sudan have increased. Total world cotton exports in 1979 were only about 22 percent above the 1960 level indicating a slower rate of market growth than for soybeans or coarse grains.

Figure IV-13

WORLD COTTON EXPORT MARKET



1960
VOLUME=3727 MMT



1975-79 AVERAGE
VOLUME=4245 MMT

Source: Department of Agriculture (1980)

Eight nations account for about three-fifths of the world's cotton imports. These countries, listed in order of importance of their average share of the world cotton market from 1975-1979 are: Japan, 17 percent; The People's Republic of China, 9 percent; South Korea, 6 percent; Taiwan, Hong Kong, France, and Italy, 5 percent each and West Germany, 4 percent. These eight nations have increased their share of the world cotton market since 1960.

Major changes in rankings since the sixties include increasing market shares for the Asian nations (The People's Republic of China, South Korea, Taiwan and Hong Kong) while the European countries (France, Italy and Germany) have witnessed declining shares. The major reason for these changes is that the Asian countries have required large amounts of cotton imports to fuel their growing textile industries whereas the European nations have moved heavily into the use of synthetics.

Aside from the effects of promotional efforts of producer nations, the future position of the United States in the world cotton market will depend on the level of economic, political and technological variables in three key areas.

-- U.S. Export Supply. At current prices, projected U.S. production in the next five years indicates that the United States will maintain large quantities of cotton for export.

-- Exports of Competitors. A number of cotton exporters are developing countries which are faced with the need to increase food production to feed their growing populations. Agricultural land now devoted to cotton production may be switched to food crops as price relationships and/or policies change.

-- Foreign Demand for Cotton. Increasing income and population, particularly in China, Brazil, Egypt, and South Korea, should result in higher demand for cotton textiles. An important factor will be the ratio of the cotton price to the price of synthetics. Current trends appear to favor cotton.

The trends in all three of these areas favor increased world cotton trade in the next few years with the United States favored to maintain or expand its share.

7.5.5 Rice

World rice trade has been growing irregularly over the past two decades. No single country dominates the market either on the export or the import side. In part this is because of the importance of varietal differences in rice which affect its taste, texture, and cooking characteristics. Production of certain rice varieties is also often country specific. Therefore, particular exporters can capture particular import markets based on differing preferences for rice.

67-535 O - 80 - 30

In the most recent five-year period (1975-79), the United States and Thailand have been the world's major rice exporters, each holding 21 percent of the market. More than 50 percent of U.S. rice exports were on a concessional basis as part of the P.L. 480 program. Other important rice exporters are China, Pakistan, Burma, and Japan with 11, 9, 5, and 2 percent of the world market respectively. The changes in these export market shares since 1960 are illustrated in Figure IV-14.

Rice is not a highly traded commodity and the predicted volume of trade for 1979/80 was only about 77 percent above the 1960 level. Imports are widely dispersed throughout the world. Asia is the continent with the greatest imports, accounting for 42 percent of all rice traded in the most recent five-year period. Africa was second in importance, purchasing 15 percent of rice sold on world markets followed by Western Europe (11 percent), Latin America (4 percent), and Eastern Europe (2 percent). The major rice importing countries are Indonesia (19 percent), the European Community (9 percent) and the Soviet Union (3 percent).

The future structure of the world rice market will depend largely on the policies and trends in the major producing and consuming countries. Some of the most important factors include:

-- Thailand's ability to continue production increases. Production gains in the past have been largely the result of expanded acreage; future gains will depend on yield increases which are a function of capital investment and technological development.

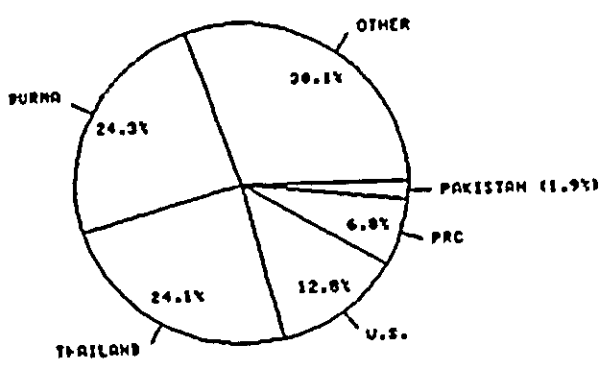
-- Indonesia's ability to increase rice production. Past Indonesian policies have been consumer-oriented. A move toward a more producer-oriented rice policy would stimulate domestic rice production and decrease the need for imports.

-- The continued expansion of quality rice markets in the Middle East. Further growth in rice import demand in the Middle East is dependent on a more even redistribution of income in the region.

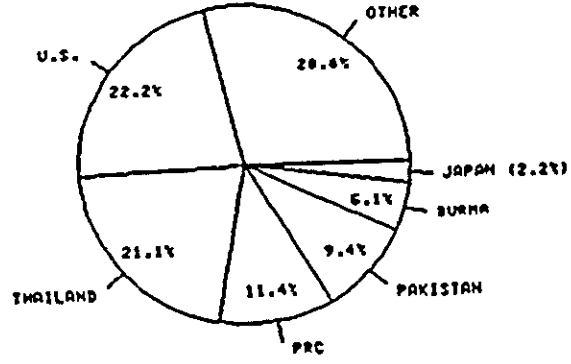
-- P.L. 480 rice exports. Any change in the export provisions of the P.L. 480 program could have a significant impact on the U.S. share of the world rice market.

Figure IV-11

WORLD RICE EXPORT MARKET



1960
VOLUME=6.5 MMT



1975-79 AVERAGE
VOLUME=10.6 MMT

Source: Department of Agriculture (1980)

7.6 Trade Barriers to Agricultural Exports and the MTN

Import restrictions and export subsidies affect the competitive position of U.S. agricultural exports. Most U.S. agricultural exports are subject to tariffs in other countries and almost every significant agricultural product is produced or exported with government assistance in one or more countries. In addition, nontariff barriers such as quotas, licensing restrictions, state trading, variable levies, product standards and custom valuation practices also pose significant obstacles to U.S. exports of agricultural commodities.

Efforts to reduce these trade barriers take place both bilaterally and in broader multilateral negotiations under the GATT. The most recent of these rounds, the Multilateral Trade Negotiations (MTN), produced significant results for U.S. exports of agricultural as well as industrial products. In terms of 1976 trade levels and values, the United States received concessions on nearly $3.8 billion worth of farm products, including reductions in duties, liberalization of nontariff barriers, and duty bindings. The United States granted concessions on agricultural products covering about $2.4 billion.

Another product of the MTN was a series of international codes which should strengthen existing GATT rules concerning the resolution of international trade disputes. For agriculture, the two most important codes are those relating to subsidies and standards. The subsidies code, as applied to primary agricultural products, further clarifies what constitutes a fair share of world trade and defines more clearly the notion of a previous representative period. The standards code calls for more open procedures in drawing up standards-related regulations, including comments from the public or other governments.

In the coming years, trade policy efforts within the Department of Agriculture will focus on several areas. The Department will participate in interagency efforts to bring more countries, especially developing countries, into the agreements already negotiated. The USDA will also work with other agencies toward a successful implementation of the MTN agreements, and will attempt to obtain more useful rules on trade barriers not effectively dealt with in the MTN. Finally, the United States, together with several other MTN participants, will help develop the concept of a Multilateral Agricultural Framework. During the MTN, several participants agreed to consider later a proposal for a forum for the exchange of information as well as regular meetings to consult on proposed changes in agricultural policies before they are implemented. Ultimately, the objective of this proposal is to encourage the operation of domestic agricultural policies so that they do not shift the burden of adjustment to international trade.

7.7 U.S. Transportation Systems

Transportation distances and modes influence total costs for an product, and, although the U.S. transportation network is one of the best in the world, bottlenecks still occur that impede efficiency and delay shipments. A principal problem in recent years has been declining rail service to rural areas at a time when U.S. production and exports are setting new records. Rail transportation problems include car shortages, owner's bankruptcies, mainline deterioration, and obsolete labor work rules. Waterway restraints are also impeding commodity transport. Lock 26 on the Mississippi River and the Bonneville Lock on the Columbia River cause delays during periods of heavy traffic. Divergent size and weight limitations among the States constitute the principal problem for truck transportation. Escalating fuel costs affect all these transport modes, and have been particularly noticeable in the cost of both ship and airplane ocean transportation. The rising cost of ocean shipping is damaging U.S. competitiveness and endangering several U.S. export markets, especially wheat and feed grain markets in Southeast Asia.

7.8 Concluding Remarks

The underlying impetus for the rapid increase in U.S. agricultural exports in the last decade has been rapid population growth in the developing countries, and substantial increases in real per capita income around the world, that has permitted consumers to upgrade the quality of their diets by eating more livestock and poultry products. The United States was able to respond to this demand and increase its market share because it had a much larger capacity to increase output with relatively little increase in unit cost than any of the other grain exporters. Also of importance were the cumulative effects of years of market development work, the price competitive effects of the depreciation of the dollar relative to the currencies of major importers and the capacity of the U.S. transportation system and port facilities to deliver large quantities of agricultural products to foreign markets.

The United States appears to still have the capacity to further increase its grain and oilseeds exports in the future, and with smaller increases in unit costs than many of its competitors. However, two factors threaten the country's future ability to compete. On the one hand, investments in agricultural research have been lagging in real terms for almost a decade, and have contributed to a recent leveling off of increases in rates of productivity. Some other countries have been substantially increasing investments in research and should thereby be able to expand their productivity and reduce future import requirements. Expansion of U.S. agricultural output in the 1980's will require better management of resources and new technological developments to match the export growth of the seventies.

The second major cause for concern is the rising price of energy. The United States will have to invest more in new energy-saving technologies if it is not to lose its competitive position relative to countries with less energy intensive agricultures. Transportation, particularly, is a sector of the economy in which rising energy costs could have a significant impact on U.S. competitiveness. Although the United States has a substantial competitive advantage in the transportation of bulky grains thanks to cheap water-transport costs from the heartland to the ports, increasing ocean freight rates mean a weakening of the U.S. competitive position in distant markets.

Certainly the future competitiveness of U.S. agricultural exports will depend on effective market development programs and the ability to obtain more favorable tariff treatment for U.S. products in importing countries. Yet of greater significance over the next 10 to 20 years will be the need to develop lower cost production technologies and organizational methods. This will require increased commitments to agricultural research and productivity-increasing investments in the land, labor, capital, and energy resources. The efficiency of the U.S. agricultural sector has been the key to its success in world markets in the past, and the maintenance of future efficiency will be the most important single element in sustaining the gains which have already been made.

V. Assessment of the Determinants of Changing U.S. Trade Performance

OVERVIEW AND SUMMARY

-- This chapter analyzes the major factors which influence competitiveness. The factors analyzed include: (1) changes in the availability of capital, skilled labor and other major resources; (2) research and development; (3) changes in productivity and unit labor costs; (4) Multilateral Trade Negotiations and foreign commercial policies; (5) foreign direct investment and technology transfer; (6) taxation; (7) energy and (8) labor-management relations.

-- The United States emerged from World War II with its industrial base intact, giving it a unique position in the world economy. However, its unique position disappeared with the more rapid growth of investment and skilled labor, and with more intensified research and development efforts by other countries.

-- A consistent explanation emerging from the analysis is that the decline in U.S. trade performance since the early 1960s 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.

-- 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 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 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.

-- The 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 1980s due to ongoing changes in the distribution of the world's resources and the increased technical effort by major U.S. competitors.

-- 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, the United States has had slow productivity growth relative to past growth and relative to the growth in other countries. U.S. productivity growth in manufacturing has lagged behind that of all of our major foreign competitors, except the United Kingdom. Over the last decade, manufacturing productivity in the United States increas d 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. The comparatively high productivity growth rates in Japan and most of Europe have permitted more rapid increases in real wage rates in these countries than in the United States.

-- Several important trends are apparent from the available data on technology transfer and foreign direct investment. First, income from foreign direct investment and technology transfer is becoming an increasingly important item in the U.S. balance of payments. These inflows exceeded $44 billion in 1979, whereas outflows on these accounts were less than $7 billion. Second, property plant and equipment expenditures of foreign affiliates of U.S. firms are growing much more rapidly than domestic investment by U.S. firms (430 percent and 291 percent, respectively, over the period from 1966 to 1979). Although no definitive estimates of the effects of foreign investment or technology transfer on the competitiveness of U.S. exports are yet available, they are of growing importance in the balance of payments and in determining the global pattern of investment expenditures.

-- Although it is not clear that taxation influences the aggregate U.S. trade balance, different U.S. taxes (such as the corporate income tax) and tax provisions (such as the provisions for deferral of non-repatriated foreign source income and the provisions for Domestic International Sales Corporations) may affect the composition of U.S. trade. Also, although the value added tax with border tax adjustments would probably have little effect on the overall U.S. trade balance, this tax could change the pattern of U.S. trade if tax rates for different industries vary widely.

-- The Tokyo Round tariff and, particularly, nontariff barrier (NTB) agreements provide an excellent beginning for attacking governmental intervention and restriction in trade. The NTB agreements will assist in maintaining open world markets for U.S. exports. Vigilance will be necessary to ensure that the principles agreed to in the NTB codes are strictly adhered to by signatory countries.

-- Prior to 1973, energy prices in both the United States and Canada were lower relative to their major trading partners. Consequently, both countries tended to specialize in commodities produced with energy intensive methods. A determination of the full impact on U.S. competitiveness of subsequent energy price increases is difficult and involves a complex set of relationships. However, many of the products in which the United States is competitive are energy-intensive. Continuing increases in energy prices will heavily impact on the direct energy imports and on imports of energy-intensive ores and raw materials. Further, the prices of some of the more competitive U.S. exports may increase relative to those of its less-competitive goods. Both of these may result in a worsening U.S. trade balance and/or a fall in the international value of the dollar.

-- The labor-management relations systems of a firm refers to the rules governing the function, responsibilities and behavior of workers and managers. Differences among nations in the degree to which labor and management cooperate with one another can have an effect on the international competitiveness of a nation's firms and industries. A comparison of empirical measures suggests that the trade performance of Japan and Germany is, in part, related to the cooperation exhibited by labor and management. Efforts to encourage labor-management cooperation in the United States may lead to productivity increases which could improve U.S. competitiveness in world markets.

-- Other factors affecting U.S. competitiveness such as product quality, managerial initiative and delivery and servicing are difficult to quantify. It is not possible to identify the magnitude of the effect of such factors on U.S. competitiveness, although some indication of the likely direction of their impact can be made. More research, at a detailed level, is necessary before an assessment of these factors can be made.

V. Assessment of the Determinants of Changing U.S. Trade Performance

1. CHANGES IN RELATIVE RESOURCE SUPPLIES AS A DETERMINANT OF CHANGING U.S. TRADE PERFORMANCE[1]

1.1. Introduction and Summary

Differences in the relative availability of productive resources both within and among countries are a primary determinant of the composition and direction of a country's trade flows. However, the availability of these resources does not remain constant over time, and changes in resource availability can be expected to alter the structure of a country's trade. These changes in trade structure occur for two reasons. First, if a country accumulates, say, capital relative to labor faster than the rest of the world, this will induce a shift in the mix of the country's production toward the more capital-intensive sectors and away from the more labor-intensive sectors. Consequently, the country's production, and exports, of capital-intensive commodities will expand whereas its production of labor-intensive commodities will decline and its imports of such goods will increase. Second, the faster growth of capital relative to labor will tend to reduce the price of capital relative to labor services. This causes producers to shift to more capital-intensive methods of production and the price of capital-intensive goods will fall relative to labor-intensive goods. As a result, the production and exports of capital-intensive goods will increase.

Past studies of the resource determinants of U.S. trade structure have found that the availability of capital and highly-skilled labor creates a comparative advantage for the United States in the production and export of capital and skilled labor intensive goods. One would expect, therefore, that as other countries accumulate these resources their increased production and export of such goods will lead to increasing competition for the United States in its traditional export goods.

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[1]The background paper by Bowen (1980a) presents a detailed analysis of the changes in international resource abundance and its effect on U.S. and world trade.

This section examines the changes in the resource supplies of the United States and other countries since the early 1960s and assesses the impact of these changes as an explanation of the changing structure of U.S. trade and the growing competition to U.S. producers in international markets.

The results of this analysis indicate that the changes in resource availability in the United States relative to other countries provide a significant explanation of the changes in U.S. trade structure and the increasing competition to U.S. producers in world markets. It is found that the relative capital abundance of the United States has been substantially eroded since the early 1960s. This relative decline is also found, though to a lesser degree, with respect to the availability of skilled labor.

Examining the changes in the composition of U.S. trade, it is found that U.S. trade in manufactured goods has shifted toward the less capital-intensive sectors. This shift in the composition of U.S. trade is found to be evident in U.S. trade with both the developed and developing countries.

The results of a formal statistical analysis of the resource determinants of U.S. comparative advantage since the early 1960s indicate that the more rapid accumulation of capital and skilled labor relative to semiskilled labor by the developed countries has enabled them to compete successfully in those products which were traditionally strong U.S. exports. In addition, the results indicate that the rapid accumulation of capital and semiskilled labor by the developing countries has enhanced their ability to supply those products in which the United States has a comparative disadvantage.

1.2. The Changing Structure of Resource Endowments

1.2.1 Changes in Resource Supplies Within Countries

The rates of growth of resources within a country are traditionally used to reflect the changing direction of its resource availability. The ranking of the levels of resources across countries is used to indicate a country's resource availability relative to other countries. Tables V-1 and V-2 report the levels of capital per worker and the ratio of skilled labor to total labor in 1963 and 1975 for the United States and thirty-three other countries. Also shown is the average annual compound rate of growth of each resource in each country, between 1963 and 1975. The countries have been ranked on the basis of this growth rate.

The data in Table V-1 confirm the conventional wisdom that in the early 1960s the United States held a dominant position with respect to capital per worker relative to the rest of the

Table V-1

Capital per Worker Endowments and Their Change, 1963-1975

Country	Growth Rate	Capital per Worker* 1963 Value	1963 Rank	1975 Value	1975 Rank
Korea	11.9	241	33	1003	31
Japan	10.1	2459	19	8242	14
Greece	9.6	1263	23	3980	21
Spain	8.3	2079	20	5610	18
Panama	7.1	1315	22	3084	22
Turkey	6.7	480	31	1071	29
Portugal	6.5	889	28	1947	26
Austria	6.4	3754	15	8140	15
Hong Kong	6.0	1021	27	2099	25
Brazil	5.9	1075	26	2190	23
Mexico	5.9	1469	21	2969	23
France	5.8	5640	8	11353	5
El Salvador	5.6	545	29	1066	30
Denmark	5.4	4694	13	9030	11
Ireland	5.4	2469	18	4747	19
Finland	5.3	5387	10	10219	7
Israel	5.1	4952	11	9167	10
Philippines	5.1	439	32	812	32
Belgium-Luxembourg	4.7	4931	12	79	13
Norway	4.7	7580	4	1 [illegible]14	1
Italy	4.4	3868	14	6560	16
India	4.3	162	34	273	34
United Kingdom	4.2	3673	16	6010	17
Germany	4.2	5665	7	9422	9
Netherlands	4.1	5473	9	8984	12
Argentina	4.0	2544	17	4124	20
Sweden	3.9	7710	3	12438	3
Switzerland	3.8	7251	5	11422	4
Australia	3.4	6490	6	9733	8
Canada	2.7	9019	2	12463	2
Colombia	1.8	1115	25	1381	27
United States	1.7	9204	1	11270	6
Yugoslavia	-.5	1239	24	1165	28
Ghana	-1.4	501	30	421	33

*In constant 1966 U.S. dollars.
Source: Bowen (1980a).

Table V-2

Skilled Labor Endowments and Their Change, 1963-1975

Country	Growth Rate	Skilled Labor per Worker 1963 Percent	1963 Rank	1975 Percent	1975 Rank
Turkey	5.24	2.10	32	3.94	31
Philippines	5.21	3.06	28	5.72	25
Greece	4.17	3.96	25	6.53	22
Ghana	4.12	2.69	30	4.41	29
India	4.04	1.91	34	3.10	33
Denmark	3.80	9.06	11	14.30	8
Finland	3.79	9.31	10	14.68	5
Brasil	3.71	3.64	27	5.68	26
Norway	3.57	9.75	9	14.96	3
Korea	3.50	2.01	33	3.06	34
Mexico	3.48	4.30	24	6.53	23
Italy	3.46	5.30	20	8.03	19
Yugoslavia	3.38	6.13	18	9.20	17
Japan	3.37	5.20	21	7.79	21
Israel	3.32	12.13	3	18.07	2
United Kingdom	3.26	8.65	13	12.79	11
Colombia	3.25	3.77	26	5.57	27
France	3.13	9.91	7	14.43	6
Netherlands	3.02	10.28	6	14.77	4
Germany	3.01	8.41	14	12.07	12
Panama	2.90	5.67	19	8.03	20
Switzerland	2.81	9.83	8	13.77	9
Spain	2.61	4.60	23	6.29	24
Portugal	2.57	2.96	29	4.03	30
Ireland	2.49	7.45	15	10.05	15
Sweden	2.26	14.60	1	19.15	1
Australia	2.07	8.78	12	11.26	14
Austria	2.06	7.19	16	9.21	16
Argentina	2.00	6.49	17	8.25	18
El Salvador	1.66	2.63	31	3.21	32
Canada	1.55	11.40	4	13.73	10
United States	1.27	12.32	2	14.35	7
Belgium-Luxembourg	.59	11.12	5	11.93	13
Hong Kong	.58	4.82	22	5.17	28

Source: Bowen (1980a).

world. Other countries with a relatively high level of capital per worker at that time were Canada, Sweden, Norway, Switzerland, Australia, and Germany.[2] Japan held an intermediate position in 1963, a rank of nineteen out of thirty-four.

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,[3] 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. Although the disparity in growth rates between these countries and the United States is partly a function of their initial (small) base, a comparison of the United States to countries with similar levels of capital per worker also indicates that it had a slower than average growth over this period.[4]

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 toward investment. In 1978, the United States allocated only 7.3 percent of its 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.

In view of the wide variation in the rates of growth of capital per worker among these countries, it would be expected that the ranking of countries would change over time. Indeed,

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[2]This ranking is similar to Hufbauer's (1970) ranking based on 1963 capital per employee in manufacturing. His top five were Canada, United States, Norway, Sweden and Australia.

[3]Heller (1976) reports a growth in capital per worker of 9.94 percent between 1960 and 1967 based on Japanese data.

[4]The rate of growth of capital per worker reported here is similar to that reported by Dennison (1979, p. 52., Table 4-2) for capital input per person potentially employed. He reports growth rates of 2.8 percent for the period 1964-1969, and 1.5 percent for the period 1969-1973. These imply a (time weighted) average annual growth rate of 2.21 percent between 1964 and 1973.

the United States fell from a rank of first in 1963 to a rank of sixth in 1975. Other countries who fell in rank were Australia, Germany, Italy, United Kingdom, Ireland, Belgium-Luxembourg, Netherlands, Mexico, Ghana, El Salvador and Colombia. The principal gainers (defined as a change in rank of three or more) were Japan, Turkey, France, Finland and Norway.

These results provide support for the often voiced view that the dominance of the United States in world trade has, in part, been eroded by the rapid accumulation of capital in other countries which has expanded their capability to supply increasing quantities of goods to the world market. Given the decline in U.S. capital per worker relative to other countries, it is not surprising that the United States is meeting increasing competition in many of its traditional exports. Further, one would expect that the overall composition of U.S. trade has shifted toward those sectors whose production employs relatively less capital per worker.

Table V-2 reports the changes in each country's endowment of skilled labor in the same format as Table V-1. The countries with the fastest rates of accumulation of skilled labor over the 1963-1975 period were: the Philippines, India, Greece and Ghana. Japan's skill endowment grew at an average annual rate of approximately 3.4 percent.5/

The data in Table V-2 indicate a change in the ranking of the United States in terms of its skilled labor endowment, similar to that found for capital per worker. Although the United States still ranks high relative to other countries, it fell from second behind Sweden in 1963 to seventh behind Sweden, Israel, Norway, Netherlands, Finland and France.

Overall, the data presented indicate that differences in the rates of accumulation of capital and skilled labor between countries has led to changes in the availability of these resources across countries. The indicated changes in resource availability over the relatively short time period covered here counters the belief that resource endowments change very slowly. In accordance with international trade theory, it is expected that these changes in resource availability have had an impact on the structure of U.S. trade as well as the trade structure of other countries.

5/Heller (1976) reports a similar growth rate for Japan's skill endowment, 4.38 percent per year over the period from 1960 to 1970. Thus, like Heller, we find that the growth of Japan's capital per worker greatly exceeded that of its skilled labor as a percentage of the labor force.

1.2.2. Changes in Relative Resource Structure and Resource Abundance

The preceding analysis of the changing structure of a country's resources was based on comparisons of the relative growth of a country's capital per worker and its ratio of skilled labor to total labor over time. As discussed in the background paper by Bowen (1980a), a more appropriate measure of a country's resource abundance relative to the rest of the world is that given by the ranking of its world share of each resource.

Table V-3 reports the world shares for the United States and selected countries with respect to five major resources. physical capital, skilled labor, semiskilled labor, unskilled labor and arable land. These data indicate that in 1963 the United States was most abundant in capital, followed by skilled labor, arable land, semiskilled and unskilled labor, in accordance with prior expectations. By 1975, however, the capital abundance of the United States relative to the rest of the world had been substantially eroded; the U.S. world share of physical capital fell from approximately 42 percent to just over 33 percent. The ranking indicates, however, that the United States is still most abundant in capital relative to its other resources.

Although the the United States is still most abundant in capital, the data indicate that it is becoming increasingly abundant in skilled labor and arable land relative to capital and that the ordering of arable land and skilled labor has changed over this period. This increasing relative abundance in arable land is consistent with the increasingly better performance on the part of U.S. agricultural goods relative to its manufactured goods in world trade.

Japan's resource structure is seen to have changed from being abundant in semiskilled labor, highly-skilled labor, and physical capital in 1963 to being most abundant in physical capital in 1975 as a result of a more than twofold increase in its share of the world capital, from 7.09 percent to 14.74 percent. Note that Japan's world share of semiskilled labor declined whereas its world share of highly-skilled labor increased along with that of physical capital. Given these changes, one would expect to observe a shift in Japan's trade structure over this time period toward those sectors whose production requires more capital and skilled labor relative to total labor.

France shows a slight increase in its world share of capital and relatively large declines in its world shares of semiskilled and unskilled labor. Thus, France's abundance of capital relative to these other resources has increased since the early 1960s.

Table V-1
U.S. and Selected Countries' World Shares of Resources in 1963 and 1975

Country	Year	World Resource Shares (percent)				
		Capital	Skilled Labor	Semiskilled Labor	Unskilled Labor	Arable Land
UNITED STATES	1963	41.93	29.36	18.27	.60	27.44
	1975	33.43	26.33	19.09	.18	29.25
JAPAN	1963	7.09	7.84	12.56	.30	.90
	1975	14.74	8.62	12.33	.25	.78
GERMANY	1963	9.12	7.08	6.79	.14	1.29
	1975	8.27	4.56	5.79	.08	1.13
CANADA	1963	3.82	2.53	1.72	.06	6.45
	1975	3.74	2.55	1.92	.03	6.12
FRANCE	1963	7.14	6.57	5.25	.11	3.18
	1975	7.94	5.24	4.49	.06	2.63
ITALY	1963	4.80	3.44	4.97	.44	1.72
	1975	4.29	3.25	4.32	.30	.90
UNITED KINGDOM	1963	5.60	6.97	6.48	.14	1.13
	1975	4.89	6.44	5.32	.07	.98
BRAZIL	1963	1.63	2.88	3.76	5.74	4.69
	1975	2.38	3.82	4.78	6.00	5.12
HONG KONG	1963	.08	.21	.27	.19	.00
	1975	.12	.19	.38	.09	.00
KOREA	1963	.13	.57	1.75	1.39	.33
	1975	.40	.75	2.07	1.71	.34
MEXICO	1963	1.07	1.64	2.17	2.06	3.86
	1975	1.59	2.12	2.99	1.44	3.91

SOURCE: Bowen (1980a).

Surprisingly, Germany's world share of every resource declined, but it is seen that it is still most abundant in capital, followed by skilled labor, semiskilled labor, arable land and unskilled labor.

In recent years a small group of developing countries has contributed increasingly to world trade in manufactured goods and have begun to compete successfully with the major nations. These "Newly Industrialized Countries" (NICs) are partially represented in Table V-3 by Mexico, Hong Kong and Korea, and it is of interest to examine whether these countries show similar resource structures.

Table V-3 indicates that the resource ordering of each of these countries changed over the 1963-1975 period. Korea shows a dramatic increase in its share of world capital but still remains most abundant in semiskilled and unskilled labor. Hong Kong shows an increase in both its world share of capital and semiskilled labor whereas its share of unskilled labor declined. These changes have reversed Hong Kong's general labor abundance in 1963 to an abundance in semiskilled labor, highly skilled labor and then capital in 1975. Mexico's endowment structure has changed similar to that of Hong Kong's in that it also increased its share of world capital and semiskilled labor whereas its share of unskilled labor declined. Note, however, that Mexico's share of skilled labor also increased. Thus, these countries all had increases in their world shares of capital and semiskilled labor and declines in their world shares of unskilled labor over this period. In general, these countries are seen to be characterized by an abundance ordering of semiskilled labor, highly skilled labor and then capital in 1975.

Other countries not shown here, but which had changes of particular interest are: Greece, which became increasingly capital abundant as the result of a large increase in its world share of capital in conjunction with a decline in its world shares of each of the three labor groups; the Philippines, whose world shares of capital, skilled labor and semiskilled labor increased sharply, while its share of unskilled labor declined; and Turkey, which had relatively large increases in both its world shares of both capital and skilled labor.

1.2.3. Bilateral Changes in Resource Abundance

The changes in a country's ranking of world resource shares discussed above indicate the changes in its resource abundance relative to the rest of the world. An alternative way to examine the changes in resource structure among countries is to look at the ordering of resources bilaterally, that is, the ordering of a particular country's resources relative to that of another country. Table V-4 shows bilateral comparisons for the United States with selected countries.

Table V-4

Bilateral Comparision of U.S. Resources Relative to Selected Countries in 1963 and 1975

Country	Year	Capital	Skilled Labor	Semiskilled Labor	Unskilled Labor	Arable Land
US/JAPAN	1963	5.91	3.74	1.45	2.00	30.5
	1975	2.27	3.05	1.54	0.72	37.5
US/MEXICO	1963	39.19	17.20	8.42	0.29	7.11
	1975	21.03	12.42	6.38	0.13	7.48
US/GERMANY	1963	4.59	4.32	2.69	4.29	21.27
	1975	4.04	4.01	3.29	2.25	25.88
US/FORPA	1963	322.54	51.53	10.44	0.431	83.15
	1975	83.57	35.11	9.22	0.105	86.03
US/UK	1963	7.49	6.02	2.82	4.29	24.28
	1975	6.84	5.19	3.59	2.57	29.84
US/CANADA	1963	10.98	11.60	10.62	10.00	4.25
	1975	8.94	10.33	9.94	6.00	4.78
US/BRAZIL	1963	7.49	4.21	2.82	4.29	24.28
	1975	6.84	4.09	3.59	2.57	29.85
US/HONG KONG	1963	524.13	139.81	67.67	3.16	27440.00
	1975	278.58	118.58	70.24	2.00	29250.00

SOURCE: Bowen (1980a).

The U.S./Japan comparison for 1963 indicates that the United States was most abundant in arable land relative to Japan followed by capital, skilled labor, unskilled labor and semiskilled labor. In 1975, the U.S. abundance in arable land relative to Japan increased, but its relative abundance in capital declined sharply. Thus, it would be expected that the United States would tend to export land and skilled labor-intensive products in exchange for capital and semiskilled labor intensive products. Further, this comparison suggests that the observed trade between Japan and the United States with regard to agricultural products is not without theoretical foundation.

The U.S./Korea comparison dramatically indicates the relative decline in the capital abundance of the United States. This same change has also occurred with respect to Mexico and Hong Kong.

In summary, on both a rest-of-world and bilateral basis, the data indicate that there have been substantial changes in the structure of resources internationally. The most dramatic change has been the relative decline in the previously dominant capital abundance position of the United States. This decline is apparent whether resource abundance is assessed in terms of capital per worker or on the basis of the ordering of world resource shares, and thus, resource abundance relative to that of the world. These changes in relative resource supplies across countries have had a significant influence on both the structure of U.S. and world trade. The next section examines this point further.

1.3. Changes in the Composition of Trade and Factor Absorption

To examine the relationship between the changes in relative resource supplies of the United States and other countries and the changes in their trade structure, an analysis of the changes in each country's exchange of factors' services due to changes in the composition of its trade was conducted.

The trade in commodities masks an underlying exchange of the factor services used in production. For example, a country abundant in capital relative to labor will tend to export those goods which embody to a greater extent the services of capital and import those goods which embody to a greater extent the services of labor. This exchange of factor services through trade represents the mechanism by which a country can augment its relatively scarce resources and leads to the proposition that the trade in commodities and the direct trade in factor services (e.g., direct investment) are substitutes for each other. Given this, changes in a country's availability of resources can be expected to alter this implicit exchange of factor services. The two mechanisms for altering this exchange

of factor services over time are changes in the composition of a country's trade and changes in the relative utilization of factors in production.

Table V-5 shows the exchange of capital and skilled labor services relative to total labor services in the manufacturing exports and imports of the United States and selected countries in five separate years spanning the period from 1963 to 1975. The results for the United States indicate that the composition of its manufacturing exports during the early 1960s shifted toward those sectors employing to a greater extent the services of capital relative to labor. In the years from 1969 to 1975, however, there is evidence of a reversal in this shift. The structure of U.S imports generally shifted toward those sectors which utilize less capital per worker in the 1960s. In the 1970s, however, there appears to have been a shift in the opposite direction indicating an increasing absorption of capital relative to total labor services.

The composition of U.S. exports with respect to the services of skilled labor shifted so as to increase the exports of this factor's services and thus indicates a shift toward the more skill-intensive sectors. Note, however, that the composition of U.S. imports also show a steady shift toward the more skill-intensive sectors over the time period.

The composition of Japan's manufacturing exports is seen to have shifted steadily over the 1963-1975 period toward a greater exchange of the services of capital relative to total labor. Japan's import structure, however, showed a declining absorption of capital services relative to total labor sevices. These same trends are evident for Japan's exchange of skilled labor. These findings are consistent with the previously found changes in the Japan's resource structure. Further, the findings are consistent with other studies of Japan (e.g., Heller (1976)) which have found that the structure of its trade, and hence its comparative advantage, has shifted toward the more capital and skill-intensive sectors since the early 1960s.

Germany's export structure has generally shifted toward less capital per worker, although in 1975 the level rose almost to that in 1963. It is uncertain whether this represents a reversal of a trend or merely a cyclical fluctuation. With respect to skilled labor, both the composition of Germany's exports and imports remained virtually unchanged over the 1963-1975 period.

The composition of U.K. manufacturing exports shows a declining capital intensity whereas its import composition shows a declining absorption of capital relative to total labor services in the 1960s, but some reversal of this trend in the 1970s. With respect to its exchange of skilled labor

Table V-5

Factor Services Embodied in Manufacturing Exports and Imports of the United States and Selected Countries, 1963-1975

Country	Year	Capital relative to total labor services in*: Exports	Capital relative to total labor services in*: Imports	Skilled labor to total labor services in**: Exports	Skilled labor to total labor services in**: Imports
United States					
	1963	9334.4	11828.2	11.5	7.1
	1966	9687.1	11536.6	11.7	8.1
	1969	9002.2	10296.2	12.4	8.1
	1972	9078.0	9752.8	12.6	8.2
	1975	9201.0	10209.1	12.4	8.6
Japan					
	1963	8992.3	11490.2	7.1	12.1
	1966	9131.4	12894.1	7.8	11.6
	1969	9201.6	12111.0	8.3	10.9
	1972	9368.9	9851.2	9.0	10.6
	1975	10493.0	9723.3	9.1	9.8
Germany					
	1963	10357.9	11794.7	9.6	7.7
	1966	10365.8	11060.9	9.6	7.7
	1969	10297.8	11563.2	9.5	7.9
	1972	9983.3	10031.2	9.6	7.7
	1975	10326.5	9803.5	9.6	8.0
United Kingdom					
	1963	9725.4	11583.9	9.7	8.1
	1966	9534.9	11592.7	10.2	8.9
	1969	9520.1	11228.2	10.2	9.8
	1972	9400.3	10292.2	10.3	9.3
	1975	9350.0	10524.6	10.6	9.3

* in 1963 U.S. dollars.
**in percent.
Source: Bowen (1980a).

Table V-5 (con't)

Country	Year	Capital relative to total labor services in: Exports	Imports	Skilled labor to total labor services in: Exports	Imports
France	1963	11041.8	12053.4	8.2	9.4
	1966	11060.8	11610.4	8.8	9.4
	1969	10809.7	10963.9	9.0	9.2
	1972	10088.0	10907.8	8.7	9.3
	1975	10147.3	10691.1	9.1	9.1
Canada	1963	18911.9	9034.0	9.4	9.4
	1966	16974.8	9270.3.	9.9	10.0
	1969	15212.7	9092.2	10.0	10.2
	1972	14268.2	8905.1	10.3	9.8
	1975	14224.1	9095.3	9.8	9.8
Italy	1963	7679.3	12594.8	7.2	10.0
	1966	8246.0	12509.1	7.2	9.7
	1969	7557.7	12102.9	7.0	10.3
	1972	7581.5	11786.1	7.0	10.0
	1975	8338.6	11472.7	7.3	10.2
Greece	1963	9304.7	10169.0	7.9	9.3
	1966	12933.6	9926.7	5.9	9.8
	1969	19335.6	8957.6	6.3	10.2
	1972	13685.4	9663.5	5.8	10.0
	1975	12892.4	9603.0	5.3	9.2
Israel	1963	8246.5	11881.2	5.0	9.6
	1966	9570.2	11515.1	6.4	10.3
	1969	8036.1	11389.3	6.4	10.4
	1972	7247.6	11263.4	6.8	10.0
	1975	9365.7	12417.4	8.8	10.3

Table V-5 (con't)

Country	Year	Capital relative to total labor services in: Exports	Capital relative to total labor services in: Imports	Skilled labor to total labor services in: Exports	Skilled labor to total labor services in: Imports
Hong Kong					
	1963	4281.3	10207.1	5.5	6.9
	1966	4293.7	9486.4	3.9	7.1
	1969	3899.8	8889.1	4.3	7.5
	1972	3729.2	8554.4	4.5	7.7
	1975	3791.3	8752.9	4.6	8.0
Korea					
	1963	11089.8	13375.9	3.8	10.1
	1966	5452.1	12115.1	3.1	9.6
	1969	4205.6	10095.4	3.5	9.8
	1972	5189.5	10746.4	3.9	10.2
	1975	5229.1	11123.1	4.5	11.0
Mexico					
	1963	16721.9	11286.8	6.9	10.8
	1966	15205.7	11516.0	7.7	10.9
	1969	14027.7	10716.7	8.8	10.8
	1972	11674.9	10180.7	9.0	11.0
	1975	13463.2	12234.9	8.8	10.6
Philippines					
	1963	6154.2	12208.4	2.2	9.7
	1966	6698.6	12546.7	2.4	9.5
	1969	9021.2	12087.3	3.3	10.0
	1972	8567.5	12304.9	3.8	10.6
	1975	12915.5	11887.0	4.6	10.8

services, the composition of U.K. manufacturing exports shows an increasing skill intensity as does its import composition.

Looking at Mexico, Korea and Hong Kong among the NICs, only Korea and Mexico show any shift in export composition toward a greater exchange of capital relative to total labor services. However, these countries all show large increases in their exchange of skilled labor services, due to shifts in the composition of their exports.

The export composition of the Philippines is seen to have shifted increasingly toward a greater exchange of the services of both capital and skilled labor relative to total labor. Greece's export structure shifted during the 1960s toward a greater exchange of capital services, whereas its import structure shifted toward a reduced absorption of capital services. Greece's export of skilled labor services declined, whereas its absorption through imports of the services of skilled labor increased.

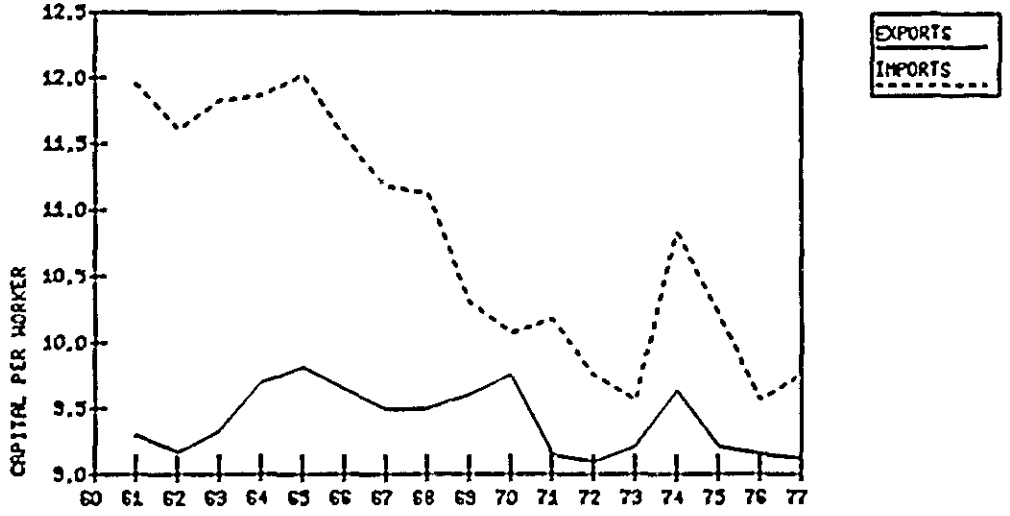
These results indicate that changes in the composition of trade across countries are significantly influenced by the changes in resource endowments.6/ Given that the changes in the composition of a country's trade flows are significantly associated with the changes in its resource structure relative to the rest of the world, it is of interest to examine in more detail the changes in the U.S. exchange of capital, skilled labor, and total labor services as the result of changes in the composition of its trade. To do so, the capital and skilled labor content of U.S. trade were computed on an annual basis over the period from 1961 to 1977.

Figure V-1 shows the movements in the exchange of capital relative to total labor services embodied in both U.S. manufacturing exports and imports over the sixteen year period. This indicates that since the mid-1960s, there has been a slight trend decline in the the export of capital relative to total labor services and thus a gradual shift in the composition of U.S. manufacturing exports toward the less capital-intensive commodities. The structure of U.S.

6/In the detailed analysis conducted by Bowen (1980a), the changes in resource structure across the thirty-four countries shown in Table V-1 and the changes in their exchange of factor serivces due to changes in the composition of their trade were analysed using formal statistical methods. The results of that analysis confirmed that the changes in the composition of a country's trade and thereby its exchange of factor services over the fifteen-year period studied were significantly associated with changes in resource structure.

Figure V-1

Ratio of Capital to Total Labor Services
Embodied in U.S. Manufacturing Exports and Imports
1961-1977



Source: Bowen (1980a)

manufacturing imports shows a dramatic shift toward less capital per worker during the 1960s and on into the early 1970s. However, from 1973 to 1977 there was an abrupt halt in this decline.

As an indication of the relative exchange of capital per worker in U.S. trade, Figure V-2 shows the movements in the ratio of capital per worker in manufacturing exports relative to the ratio of capital per worker in imports. This indicates that in the late 1960s there was a rapid shift in the composition of U.S. trade toward a greater exchange of capital relative to total labor services, but that in the 1970s there was a shift in the opposite direction. This indication of a shift in U.S. export structure toward less capital per worker is consistent with the preceding findings of the changing resource structure of the United States and other countries.

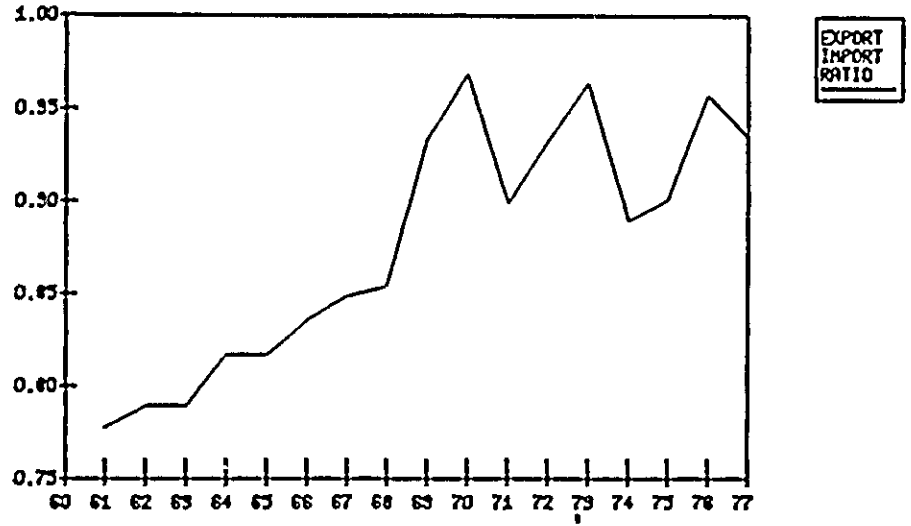
The above findings indicate that the structure of U.S. trade in manufactured goods since the late 1960s has been significantly influenced in the capital-intensive sectors and that the composition of U.S. manufacturing trade has shifted such that its relative exchange of capital services with the rest of the world has declined. This is consistent with the previously found decline in the capital abundance position of the United States relative to the rest of the world.

To examine further the changes in the composition of U.S. trade and its exchange of factor services, the changes in the composition of U.S. trade in manufactured goods going to the developed and developing countries are shown in Figure V-3. It is seen that there has been a definite shift in the composition of U.S. exports toward less capital per worker to these two regional groupings. The indicated shift in the composition of U.S. exports to the developing countries away from an exchange of the services of capital relative to total labor begins in the early 1960s with the biggest shift occurring over the 1964 to 1968 period. The shift toward less capital per worker to the developing countries does not appear until the late 1960s.

The changes in the composition of U.S. exports to these two country groups indicate that the developed countries have continually absorbed less capital services from the United States, which is consistent with their more rapid accumulation of capital relative to the United States. The shift in the composition of U.S. exports to the developing countries could reflect not only a reduced absorption of capital relative to labor services as a result of their increased capital availability, but also the increasing competition to the United States in these markets as other developed countries continue to accumulate capital relative to the United States and compete for the sale of capital-intensive commodities.

Figure V-2

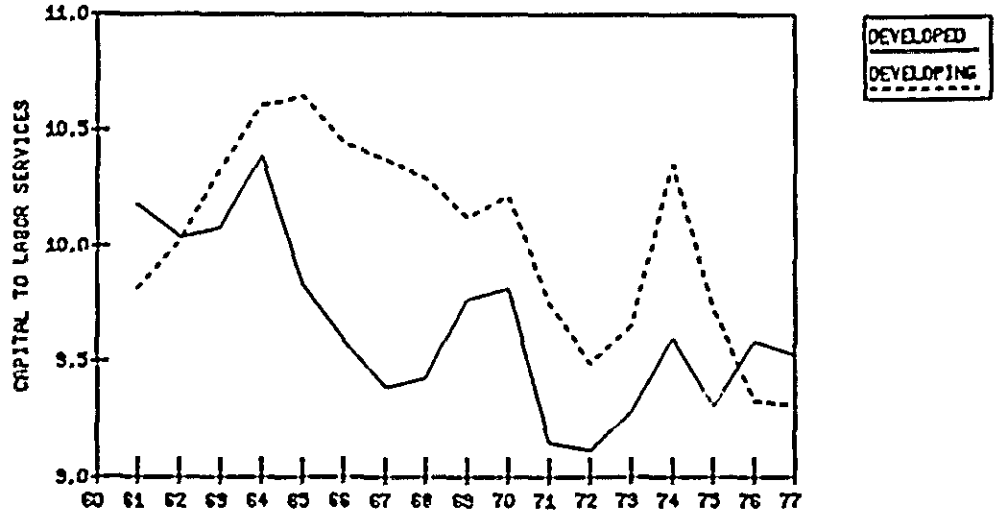
Ratio of Capital per Worker Embodied
in U.S. Manufacturing Exports Relative to Imports
1961-1977



Source: Bowen (1980a)

Figure V-3

Ratio of Capital to Labor Services
Embodied in U.S. Manufacturing Exports to
Developed and Developing Countries
1961-1977



Source: Bowen (1980a)

Overall, these results indicate a generally declining trend in the relative exchange of capital services by the United States to the rest of the world as a result of changes in the composition of its trade. For the most part, the overall decline in the exchange of capital services by the United States can be identified as beginning in the late 1960s and early 1970s after a period of rapid changes in the composition of its trade. Thus, the results indicate that the structure of U.S. trade has been shifting toward the less capital-intensive sectors which is consistent with the decline in its capital abundance relative to the rest of the world.

The preceding discussion has focused on the changes in the U.S. exchange of capital services. The changes in the U.S. exchange of skilled labor services are examined next.

Figure V-4 shows the changes in the exchange of skilled labor relative to total labor services as the result of changes in the composition of U.S. manufacturing exports and imports. Note first that U.S. exports are characterized by a significantly higher level of skilled labor services than are its imports. The trends over the 1961-1970 period indicate that the composition of U.S. exports shifted toward the more skill-intensive sectors but that in the 1970s there was a reversal in this trend. The composition of U.S. imports shifted to a higher level of the exchange of skilled labor services in the 1964-1967 period and shows a moderately increasing trend thereafter.

Figure V-5 shows the relative exchange of skilled labor relative to total labor services in U.S. trade as measured by the export to import ratio. This indicates that the relative exchange of skilled labor services tended to remain, on average, stable in the 1961-1977 period despite considerable fluctuation. It is to be noted, however, that since approximately 1971 there has been a continual decline. Since numerous studies have found skilled labor to be a significant determinant of U.S. comparative advantage, this trend is disturbing.7/

Figure V-6 shows the changes in the export content of skilled labor relative to total labor services going to the developed and developing countries. It is seen that the composition of U.S. manufacturing exports to the developing countries has shifted continually from the early 1960s toward a

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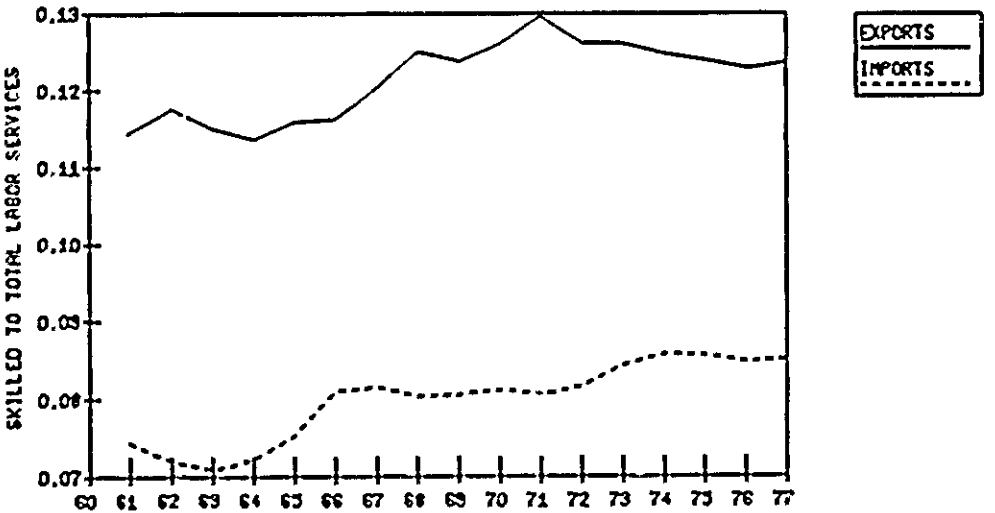
7/These movements are similar to those for capital services and could reflect a complementarity between these two inputs in production, possibly related to the "technology factor". See the background paper by Aho and Rosen (1980) for an analysis of U.S trade in this regard.

Figure V-4

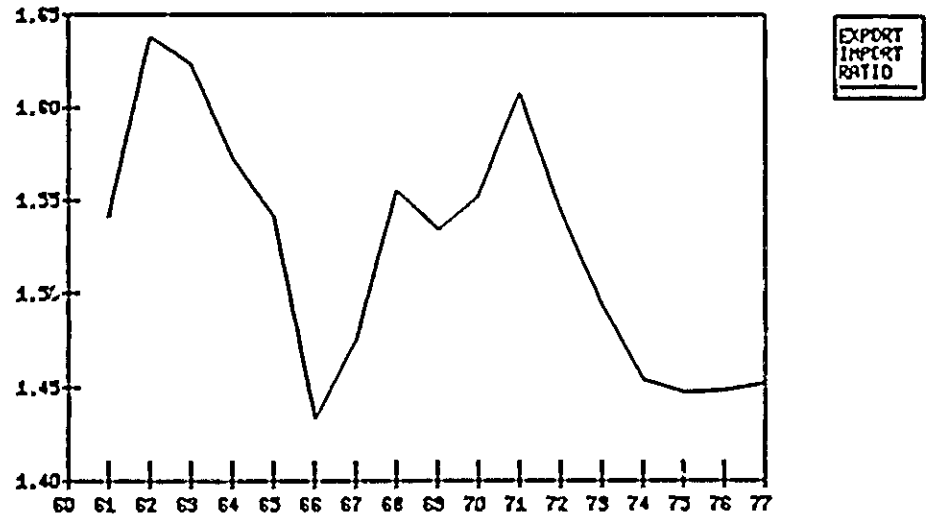
Ratio of Skilled to Total Labor Services
Embodied in U.S. Manufacturing Exports and Imports
1961-1977



Source: Bowen (1980a)

Figure V-5

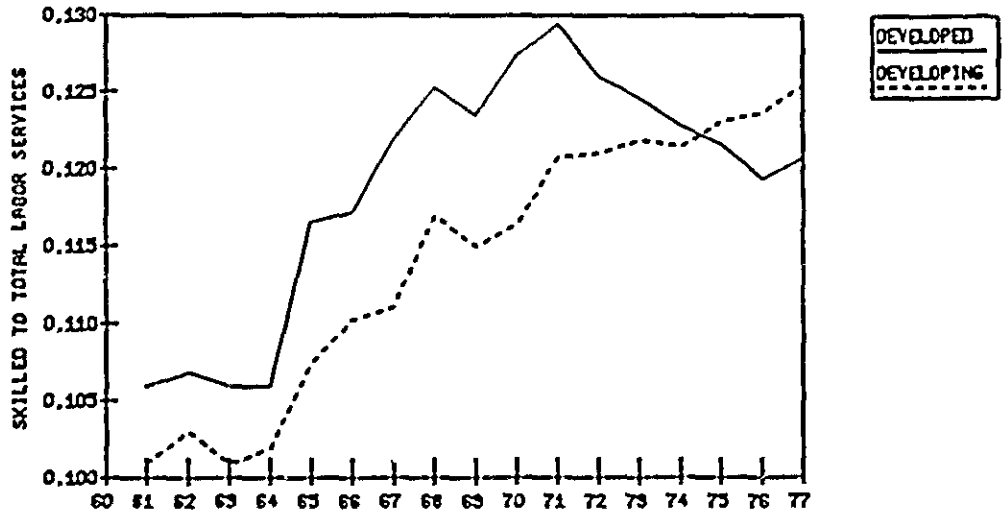
Ratio of Skilled to Total Labor Services Embodied in U.S. Manufacturing Exports Relative to Imports 1961-1977



Source: Bowen (1980a)

Figure V-6

Ratio of Skilled to Total Labor Services
Embodied in U.S. Manufacturing Exports
to Developed and Developing Countries
1961-1977



Source: Bowen (1980a)

greater exchange of skilled labor. In contrast, the composition of U.S. exports to the developed countries, although shifting rapidly toward a greater exchange of skilled labor in the 1960s, shows a decidely downward trend in the 1970s. This indicates that the composition of U.S. exports to these countries has shifted away from the skilled labor intensive sectors.

The above results indicate that, coincident with an observed decline in the capital abundance of the United States relative to the rest of the world, the composition of U.S. trade in manufactured goods has shifted toward a reduced exchange of capital services, particularly in the 1970s.[8/] This overall decline was also found with respect to the changing composition of U.S. exports to both the developed and developing countries. Therefore, the results suggest that the changes in the composition of U.S. trade, and the growing competition to the United States from other developed countries in many of the commodities representing U.S. comparative advantage are attributable, in part, to the changes in the capital abundance position of the United States relative to the rest of the world.

With respect to the exchange of skilled labor services by the United States, the results indicate that the composition of U.S. trade to the world has remained, on average, relatively stable. Although the exchange of skilled labor services has remained, on average, unchanged, there have been considerable fluctuations and the composition of U.S. trade was found to have shifted toward a reduced exchange of skilled labor since the early 1970s. Further, the results indicate that the composition of U.S. exports to the developed countries has shifted away from the skill-intensive sectors since the early 1970s while the composition of U.S. exports to the developing countries shifted continually toward a greater exchange of skilled labor over the 1961-1977 period.

Overall, the results suggest that the accumulation of capital and skilled labor in the developed countries has contributed to a decline in the absorption of these factors from the United States and that, coincident with their increased capital availability, these countries have expanded their ability to compete in those sectors representing traditional manufacturing exports of the United States. The

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8/In the more detailed analysis in Bowen (1980a), the changes in the trade of each factor's service were also analyzed individually. The decline in the U.S. exchange of capital services was evident whether the changes in the exchange of capital services were measured relative to total labor or in isolation.

results further suggest that the accumulation of capital in the developing countries has reduced their absorption of capital services from the United States, but that they continue to absorb increasing amounts of skilled labor. It should be evident that the changes in the international distribution of resource endowments have exerted a powerful influence on the structure of U.S. and world trade.

The preceding analysis of factor services embodied in trade strongly suggests that the increased competition to U.S. producers in world markets is in large part the result of changes in the relative resource structure of the United States compared to the rest of the world. As a further assessment of the impact of changing resources on U.S. trade, a formal statistical analysis of the resource determinants of U.S. comparative advantage between 1963 and 1975 was conducted. The details of this analysis are reported in Bowen (1980a). Below is a summary of the findings of that research.

1.4. The Resource Determinants of United States Comparative Advantage

A number of studies of U.S. trade structure have found that skilled labor and capital are important determinants of its comparative advantage.9/ The background study by Bowen (1980a) examined the resource determinants of U.S. comparative advantage in a cross-country framework over the period from 1963 to 1975. The results indicated that, consistent with the findings of past research, skilled labor remains an important determinant of U.S. comparative advantage. However, the results further indicated that semiskilled labor, as opposed to unskilled labor, is more important in determining trade performance in those commodities representing U.S. comparative disadvantage.

Given that trade performance in commodities representing U.S. comparative advantage is determined by an availability of capital and skilled labor relative to semiskilled labor, what matters for the changes in trade performance among countries in those goods is then the rate at which these resources are accumulated across countries. In this regard, the results indicated that rapid rates of capital accumulation, in conjunction with an abundance of skilled labor relative to semi-skilled labor, would tend to convey a comparative advantage, and a growing trade, in those goods representing U.S. comparative advantage. Conversely, the results indicated that rapid rates of capital accumulation, in conjunction with

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9/A thorough review of this literature is presented in the background paper by Aho and Bowen (1980).

an abundance of semiskilled labor relative to skilled labor would impact favorably on a country's ability to supply those goods representing U.S. comparative disadvantage.

Given these findings, recall that Japan became increasingly abundant in capital and skilled labor relative to semiskilled labor between 1963 and 1975. Hence, it would be expected that Japan's trade structure would shift toward those commodities representing traditionally strong exports for the United States. Further, recall that the resource structure of the NICs showed an abundance in semiskilled labor relative to skilled labor and that they showed relatively large increases in their shares of world capital. Therefore, it would be expected that they would increase their production and exports of those goods in which the United States is at a comparative disadvantage.

Overall, these results, in conjunction with the observed changes in relative resource supplies across countries, indicate changes in the structure of trade that are consistent with observed changes in the pattern of world trade in the 1970s and indicate that changes in the international distribution of resources provide a significant explanation of the changing structure of U.S. trade and the growing international competition to the United States in the 1970s.

In summary, the results indicate that the rapid capital accumulation by other countries relative to the United States, in conjunction with the growth in skilled labor relative to semiskilled labor, has enabled them to compete successfully in the markets for those goods representing U.S. comparative advantage. Further, the results indicate a growing importance in the availability of capital, semiskilled and unskilled labor in determining trade performance in the commodities representing U.S. comparative disadvantage.

1.5. Concluding Remarks

This section has investigated the changing patterns of resource abundance and the relationship between these changes and the changes in the composition of trade in manufactured goods over the period from 1963 to 1975. A central purpose of this analysis was to examine the changes in the resource structure of the United States relative to the rest of the world and to assess how these changes have impacted on the structure of U.S. trade.

The results indicate that the changes in the structure of factor abundance of the United States relative to the rest of the world provide a significant explanation of the changes in the structure of its trade. In particular, 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 representing 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 in which the United States has a comparative disadvantage. Therefore, the results suggest that both U.S. export and import-competing industries will face increasing competition in the 1980s. The likely consequence of this increased competition in world markets will be to narrow the range of products representing U.S. comparative advantage.

2. THE ROLE OF TECHNOLOGY AS A DETERMINANT OF CHANGING TRADE PATTERNS

The preceding section stressed the role of changes in the availability of capital, skilled labor and other resources as an important factor affecting long-run U.S. competitiveness. This section focuses on the role and contribution of technology in determining U.S. competitiveness.10/

Serious questions have recently been raised concerning the U.S. position in technological innovation. While some data suggest that the United States is declining relative to other industrial countries in its performance of technological innovation, other data show a restructuring of U.S. investment in technology. Although it may not be possible to assess overall U.S. performance in technological innovation, some new trends in the traditional indicators of research effort can be detected.

Since it is difficult to measure the national wealth of "know-how", several proxies are normally used to assess changes in the level in U.S. technological innovation. These proxies include: national expenditures on research and development (R&D) as a percentage of gross national product, the number of scientists and engineers per 10,000 workers in the labor force,

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10/This section serves as a brief review of U.S. performance in research and development efforts. For a more detailed discussion see the various works done by the National Science Foundation and the recent summary by Mogee (1980).

and the U.S. patent balance with several countries.11/

In recent years there has been a relative decline in the size of U.S. research efforts. In 1978 the United States spent approximately $47.3 billion on research and development (R&D) which represents approximately 50 percent of total OECD expenditures on research and development.12/ However, in 1970 the United States accounted for 59 percent of the OECD total.

Table V-6 presents total R&D expenditures for five OECD countries as a percentage of their gross national product (GNP). Prior to 1975, the United States had the highest ratio of R&D to GNP among the five "technology-rich" OECD countries.13/ In 1975, West Germany surpassed the United States in R&D expenditures as a percentage of GNP. Although a slowdown in the decline of U.S. R&D expenditures in 1976 and 1977 helped the United States recover its lead, more recent data suggest that West Germany has once again surpassed the United States in terms of R&D as a percentage of GNP. In 1978, R&D expenditures as a share of GNP for Germany and the United States were 2.28 and 2.25 percent, respectively.14/

Although U.S. research effort is still larger than in most other countries, the important development in recent years has been the large increase in the research effort by its competitors. Germany set the pace among the five countries with an 80 percent growth in R&D expenditures as a percentage of GNP since 1961. Japan was second with a 40 percent growth while France's performance in R&D expenditures as a percentage of GNP remained constant over time. In both the United States and the United Kingdom, R&D expenditures as a percentage of GNP declined continuously over time.

11/The data on these measures are presented with the understanding that each has severe limitations as an indicator of technological innovation. The background paper by Aho and Rosen (1980) contains a discussion of some of the limitations. See Mogee (1980) and Boretsky (1975) for a more complete discussion of the limitations of the proxies.

12/Organization for Economic Cooperation and Development (1979).

13/In 1975, these five countries accounted for 87 percent of OECD expenditures on research and development.

14/National Science Foundation (1979).

Table V-6

R&D Expenditures as a Percentage of Gross National Product
1964 - 1977

Country	1974	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	1.94*
United Kingdom	2.30	2.29	2.06	2.05	NA
United States	2.97	2.83	2.43	2.30	2.27

*1978

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

Table V-7

Scientists and Engineers per 10,000 in the Labor Force
1965 - 1977

Country	1965	1968	1972	1975	1977
France	21.0	26.4	28.1	29.3	29.9*
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

*1976

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

Another proxy used to measure national involvement in science and technology is the number of scientists and engineers per 10,000 workers in the labor force (See Table V-7). These data confirm the trends suggested by the data on R&D as a percentage of GNP. Here, however, the United States is the only country among those presented which experienced a decline in the proportion of scientists and engineers in the labor force.

Although the United States still has a larger number of scientists and engineers per 10,000 in the labor force than any other OECD member country, the proportion of scientists and engineers for other countries has increased markedly. Since 1965, Germany and Japan both had significant growth in the number of scientists and engineers. Germany's proportion of scientists and engineers per 10,000 people in the labor force increased from 23 to 41 between 1965 and 1977. Japan's proportion showed the largest increase, from 25 to 50 between 1965 and 1977. France and the United Kingdom also increased their proportions of scientists and engineers, but at a slower rate.

The final proxy for measuring national research effort ir the patent balance. Patent data reflect the number of inventions in a country. Table V-8 gives the U.S. patent balance with selected countries for 1966 to 1975. The number of patents granted to the United States declined after reaching its peak in 1969, while patents granted by the United States to foreign firms increased over the entire period. The United States currently has negative patent balances with two countries, Germany and Japan. With the exception of 1968, the United States has had a negative patent balance with Germany every year since 1966. The negative U.S. patent balance with Japan is only a recent development, beginning in 1974. Thus, these patent data comparisons are consistent with the comparisons of R&D expenditures and scientists and engineers in the work force.

Although these data are by no means conclusive evidence that the United States has lost its historical advantage in technological know-how throughout the world, they are consistent in showing that there has been little or no growth in the U.S. research and development effort. On the other hand, there has been considerable growth in these performance indicators in both Germany and Japan. Thus, there has been a relative decline in U.S. R&D performance compared to other major countries. At the same time, however, there are indications that a restructuring of the U.S. research effort has been occurring in recent years.

Table V-9 presents the average annual growth rates for national R&D expenditures by source. Total U.S. R&D expenditures in real terms grew steadily throughout the 1960s,

Table V-8

U.S. Patent Balance with Selected Countries
1966 - 1975

Country	1966	1969	1972	1975
Total:				
Balance	36,066	35,885	30,520	19,197
Granted to U.S.	45,633	47,825	47,359	37,482
Granted by U.S.	9,567	11,940	16,839	18,285
Canada:				
Balance	15,676	18,153	16,045	10,891
Granted to U.S.	16,614	19,147	17,289	12,220
Granted by U.S.	938	994	1,244	1,329
West Germany:				
Balance	-248	-40	-1,153	-2,929
Granted to U.S.	3,733	4,483	4,575	3,140
Granted by U.S.	3,981	4,523	5,728	6,069
Japan:				
Balance	3,561	2,505	794	-1,421
Granted to U.S.	4,683	4,657	5,948	4,918
Granted by U.S.	1,122	2,152	5,154	6,339
United Kingdom:				
Balance	11,440	9,503	9,837	8,436
Granted to U.S.	14,117	12,678	13,001	11,497
Granted by U.S.	2,677	3,175	3,164	3,061
Other EEC Countries:				
Balance	5,700	5,840	5,093	4,372
Granted to U.S.	6,483	6,777	6,287	5,455
Granted by U.S.	783	937	1,194	1,083

Source: U.S. National Science Board, Science Indicators 1976, Washington, D.C. 1977. Table 1-15

peaked in 1968, and then declined throughout much of the 1970s. Preliminary data for the late 1970s suggest that the United States may have recently regained its pre-1968 growth in R&D expenditures.

Table V-9

Average Annual Growth Rates for
National R&D Expenditures by Source
(in real terms)

	1961-70	1970-74	1975-79	1961-79
Total	3.6	-0.1	2.4	2.4
Federal	2.1	-2.6	1.9	1.0
Industry	5.8	2.9	2.9	4.4
University	8.7	3.7	3.2	6.0

Source: Prepared by ILAB/OFER with data from U.S. National Science Board, Science Indicators 1978, Washington, D.C., 1979. Appendix Table 2-3.

Federally supported R&D programs have historically played an important role in overall R&D expenditures in the the United States. Federal expenditures accounted for 65 percent of all R&D expenditures in 1960. However, over the last two decades the share of Federal expenditures has dropped continually, falling to 50 percent in 1979. Because of its relatively large share, changes in Federally supported R&D programs have greatly affected the growth of overall R&D expenditures.15/

Federal R&D expenditures grew rapidly during the 1960s from $12.7 million in 1960 to $18.2 million in 1967, reflecting numerous government sponsored R&D programs in national defense and space exploration. Severe cutbacks in the space program caused Federal R&D expenditures to decline throughout the 1970s. Federal R&D expenditures have begun to grow once again, but still have not reached their 1967 level. This decline in Federal R&D expenditures contrasts with private industry R&D expenditures, which have grown steadily since 1960. The growth

15/McCulloch (1978) notes that the declining fraction of U.S. GNP devoted to R&D may actually be attributable to a reduced rate of growth of federal support, particularly in the categories of defense and space over the last several years.

during the 1970s, however, has been less than the growth in the 1960s. This difference in the growth of Federal and private industry supported R&D expenditures has been responsible for the noticable shift in the distribution of R&D expenditures since 1960.16/

In a recent review of U.S. research and development performance, McCulloch (1978) argued that whereas the emphasis of the United States has been on national defense and space exploration, the emphasis of R&D spending by other nations has been oriented specifically toward the development of marketable products.17/ Table V-10 confirms that while this seems to

Table V-10

Federal R&D Obligations by Function
(in millions of current dollars)

Function	1969	1971	1974	1976	1979
Total Obligated	15,641	15,545	17,415	12,724	27,972
National Defense	8,356	8,110	9,016	10,430	13,833
share of total	(.53)	(.52)	(.52)	(.50)	(.49)
Space Exploration	3,732	2,893	2,478	2,863	3,383
share of total	(.24)	(.19)	(.14)	(.14)	(.12)
All Civilian R&D	3,554	4,542	5,920	7,430	10,756
share of total	(.23)	(.29)	(.34)	(.36)	(.38)

Source: U.S. National Science Board, Science Indicators 1978, Washington, D.C. 1979. Appendix Table 2-16

16/Federal and private industry R&D expenditures comprised 65 and 33 percent of total R&D expenditures respectively in 1960. Estimates for 1979 show that the share of Federal and private industry R&D expenditures in total R&D expenditures were almost equal.

17/There has also been a noticable change in the functional distribution of Federal R&D obligations in recent years. In 1969, 53 percent of Federal R&D was obligated to national defense programs. This contrasts with 24 percent for space exploration and 23 percent for all other civilian R&D functions. The curtailment of the space program in the late 1960s and early 1970s caused a shift in the distribution of Federal R&D obligations. By 1979, 49 percent of Federal R&D funds were earmarked for national defense while space programs fell to 12 percent and other civilian R&D programs grew to 38 percent of total Federal R&D obligations.

have been the case in the late 1960s and early 1970s, there has been a shift of U.S. emphasis in R&D expenditures in recent years. Although the United States still commits a large proportion of Federal R&D to national defense, the government has increased its share of R&D expenditures in civilian R&D programs within the last decade.

The trends in national R&D expenditures between 1969-1979 appear to be more heavily pronounced in industrial R&D expenditures. Industrial R&D expenditures include those expenditures for the purpose of generating new and improved products and processes for commercial markets.

Table V-11 presents the annual average growth rates of industrial R&D expenditures by source. Federal industrial R&D expenditures in real terms grew slightly throughout the 1960s, declined sharply in the early 1970s, and have just started to recover and grow in constant terms once again. Private industrial R&D expenditures grew in constant terms throughout the entire

Table V-11

Average Annual Growth Rates for
Industrial R&D Expenditures by Source
(in real terms)

	1961-70	1970-74	1975-79	1961-79
Total	2.6	-0.1	2.9	2.1
Federal	-0.6	-4.5	1.2	-1.0
Industry	5.9	2.9	3.8	4.6

Source: Prepared by ILAB/OPER with data from U.S. National Science Board, Science Indicators 1978, Washington, D.C., 1979. Appendix Table 4-1.

period. Although industrial R&D expenditures grew more slowly in the later years, their growth was still above the average annual growth rate for Federally supported industrial R&D expenditures.

Similar to the changes in total national R&D expenditures, there has also been a shift from government to private dominance in industrial R&D expenditures. In 1960, government support accounted for 58 percent of all industrial R&D while the private share was 42 percent. In 1968, private industrial R&D expenditures surpassed Federal industrial R&D expenditures. By 1979, privately supported industrial R&D comprised two-thirds of all industrial R&D expenditures.

In sum, two distinctive trends have emerged in U.S. R&D performance. First, there is evidence of a relative decline in the growth of R&D expenditures in the United States during most of the 1970s compared to other OECD countries. The data on scientific personnel and patent activity also suggest that there has been a relative decline. Second, there has been a restructuring of R&D expenditures away from Federal funding towards private funding.

With regard to the first trend, there has also been a decline in U.S. R&D effort relative to past efforts; R&D expenditures as a percentage of GNP in the United States have declined continually since the early 1960s. The United States only recently returned to its pre-1968 level of R&D expenditures. Recent data suggest that this recovery can be attributed to a rapid growth in private industry R&D expenditures.

The second significant trend noted has been caused, in part, by the decline in Federally supported R&D programs. It is clear that the role of private industry as a major supporter of R&D in the United States has grown. In terms of industrial R&D, private industry currently outspends Federally supported programs two to one. In terms of total R&D expenditures, the private industry share has also grown to almost equal the share of Federally supported R&D programs. Nonetheless private industry R&D as a share of GNP is still smaller than overseas.[18]

On the basis of the data examined, it is difficult to assess the overall U.S. position in research and development. The relative decline in U.S. R&D performance compared to other countries may be offset by the recent restructuring of R&D activity in the United States. In addition, the relative decline may also be overshadowed by the fact that the United States still accounts for most of the OECD expenditures on research and development. Only the passage of time will be able to resolve the question, but if technological effort can have a payoff by lowering costs or introducing new products, then the relative decline may mean increased competition for U.S. firms.

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[18] For civilian R&D expenditures as a percentage of GNP, the United States with 1.39 percent is behind Germany (2.09 percent), Japan (1.91 percent), France (1.42 percent) and the United Kingdom (1.50 percent). Similar to their overall R&D efforts, again Japan's and Germany's percentages increased throughout the 1970's while the United States percentage declined (1.52 percent to 1.39 percent) See NSF Science Indicators, 1978, Appendix Table A-4.

3. PRODUCTIVITY AND U.S. COMPETITIVENESS

3.1. Introduction

Productivity is defined as output per unit of some input. The usual input in productivity measures is labor, although other productivity measures could also be obtained based on other inputs, or groups of inputs taken together. In this section, the term productivity will refer to productivity of labor.

Increases in labor productivity generally indicate that more capital per worker is used in production, that technological improvements have caused an increase in the output derived from given amounts of capital and labor inputs, or that the quality or quantity of some other factor input has increased. The major factors contributing to labor productivity increases in manufacturing industries are increased capital per worker and improved technology. Thus, rates of net investment in capital and the development of technology are important determinants of the growth rate of productivity.

Changes in productivity are an important determinant of international competitiveness, but other factors are also important. For example, costs of labor and other factors of production, and costs of intermediate inputs and raw materials all influence the international competitiveness of U.S. producers.

This section analyzes the role of changes in productivity at home and abroad in determining U.S. trade flows. Data on productivity changes of individual U.S. industries and international comparisons of productivity changes, changes in unit labor costs and changes in manufacturing trade balances for the United States and six major trading partners are provided. Following these comparisons, the effects of productivity changes on U.S. competitiveness as measured by U.S. export shares are shown. Finally, an attempt is made to determine the contributions of investment in capital and technology to productivity growth, where investment in technology is measured as research and development expenditures.

3.2. The Role of Productivity in Determining International Competitiveness

The rate of growth of productivity of a domestic industry compared to growth rates of productivity of foreign competititors is an important determinant of the international competitiveness of an industry. For a given increase in

nominal wages, increases in productivity will tend to lower an industry's output price. Therefore, those industries with more rapid growth in productivity will tend to experience price declines relative to other domestic industries. Further, a high rate of productivity growth in domestic industries compared to foreign industries will tend to increase the price competitiveness of domestic industries relative to their counterparts abroad. One should note, however, that the competitiveness of any one industry will also be influenced by the growth of productivity in other industries both at home and abroad. This is true because changes in competitiveness of one industry or sector will tend to affect the exchange rate. For example, a tendency toward surplus in one sector would tend to cause the exchange rate to appreciate and thereby reduce the international competitiveness of all other sectors of the economy.

Table V-12 shows productivity growth rates for various sectors of the U.S. economy. Data in this table show that the average annual growth rates of productivity vary considerably from one sector to another. One sector which appears to have had good productivity growth is agriculture, with an average annual growth rate of 5.82 percent from 1959 to 1976. In contrast, the average annual growth rate of productivity in overall manufacturing was only 2.86 percent over this same period. One would expect, therefore, the competitiveness of agricultural products to have increased relative to those of manufacturing.

Changes in productivity do not provide a complete explanation of changes in competitiveness between various trading partners. Although differences in productivity growth rates do not provide the sole explanation of changes in competitiveness, they do play an important role. Therefore, in what follows some international comparisons of labor productivity growth rates and trade balances are made for manufacturing sectors of the United States and major trading partners.

3.3. Some International Comparisons of Productivity Growth

Figure V-7 shows changes in labor productivity in manufacturing industries for the United States and six major trading partners (Canada, France, Germany, Italy, Japan and the United Kingdom). Figure V-8 shows changes in unit labor costs. Unit labor costs incorporate both changes in labor productivity and changes in labor costs and are therefore more closely associated with competitiveness (price) than changes in labor productivity alone. Unfortunately, good data are not available for levels of unit labor costs or labor productivity and thus no direct comparisons of levels of labor productivity or unit labor costs are possible. Therefore, all comparisons

Table V-12

Productivity Growth Rates in the United States

	Industry	1958-76	1959-73
1	Dairy & poultry	7.0	6.9
2	Meat & livestock	5.3	5.1
3	Cotton	7.3	7.4
4	Food & feed grains	5.8	7.2
5	Other agricult. prod.	5.3	5.5
6	Forestry & fishery	-2.7	-3.1
7	Agricultural forestry and fish services	-0.4	-0.2
8	Iron ferroalloy ore mining	3.4	4.8
9	Copper ore mining	0.3	1.6
10	Other non-ferrous ore mining	0.8	2.3
11	Coal mining	2.1	2.9
12	Crude petroleum & nat. gas	3.4	5.3
13	Stone & Clay mining	2.0	3.0
14	Chemical & fertilizer mining	4.7	4.7
15	New residential construction	1.0	1.4
16	New nonresidential construction	-0.8	-0.2
17	New public utility construction	0.4	1.1
18	New highway construction	0.1	0.7
19	All other new construction	0.8	1.3
20	Oil & gas drilling & explor.	-2.0	-1.6
21	Maintenance & repair construction	-0.2	0.5
22	Ordinance	3.2	3.2
23	Complete guided missiles	-0.2	1.7
24	Meat products	2.1	2.1
25	Dairy products	4.4	3.8
26	Canned & frozen foods	3.1	3.3
27	Grain mill products	3.1	3.2
28	Bakery products	3.5	4.1
29	Sugar	3.0	3.5
30	Confectionary products	3.2	2.9
31	Alcoholic beverages	5.7	5.6
32	Soft drinks & flavorings	4.2	4.2
33	Miscellaneous food products	2.0	2.7
34	*Tobacco Manufactures	2.5	2.2
35	Fabric, yarn & threadmills	3.1	2.9
36	Floor coverings	5.9	6.9
37	Miscellaneous textile goods	2.6	3.7
38	Hosiery & knot goods	5.8	6.7
39	Apparel	2.9	2.6
40	Misc. fabricated textile prod.	4.0	4.8
41	Logging	4.4	4.2
42	Sawmills	2.4	2.7
43	Millwork, plywood & other wood	3.0	3.0
44	Wooden containers	2.5	1.4
45	Household furniture	1.2	1.4
46	Other furniture & fixtures	3.2	3.8

	Industry	1958-76	1959-73
47	Paper products	3.5	3.4
48	Paperboard	3.0	2.8
49	Newspaper printing & pub.	1.6	2.0
50	Periodical & book print & pub.	2.9	3.0
51	Misc. printing & pub.	3.0	3.3
52	Industrial inorganic & organic chem.	5.2	5.0
53	Agricultural Chemicals	4.3	4.4
54	Misc. chemical prod.	2.5	2.5
55	Plastic mat. & synthetic rubber	8.0	7.5
56	Synthetic fibers	6.1	5.3
57	Drugs	5.2	5.2
58	Cleaning & toilet prep.	3.8	3.7
59	Paint & allied prod.	2.7	2.4
60	Petroleum refining & related prod.	4.9	5.2
61	Tires & inner tubes	3.5	3.8
62	Misc. rubber prod.	2.8	3.5
63	Plastic prod.	4.2	4.0
64	Leather tanning & ind. leather	2.6	2.5
65	Footwear & other leather prod.	1.6	1.5
66	Glass	2.8	2.8
67	Cement & concrete	2.1	2.2
68	Structural clay prod.	3.4	2.6
69	Pottery & related prod.	2.4	2.4
70	Misc. stone & clay prod.	1.8	1.4
71	Blast furnaces & basic steel prod.	2.2	2.3
72	Iron & steel foundries & forgings	2.2	2.0
73	Primary copper & copper prod.	1.8	1.9
74	Primary aluminum & alum. prod.	3.7	3.7
75	Other primary iron ferrous met.	1.9	2.3
76	Metal containers	2.8	2.6
77	Heating apparatus & plumb. fixt.	2.8	2.9
78	Fabricated structural metal	1.1	1.8
79	Screw machine prod.	0.0	0.0
80	Metal stampings	2.4	3.3
81	Cutlery, handtools & other hardware	2.0	2.4
82	Other fabricated metal prod.	2.4	2.1
83	Engines, turbines & generators	3.9	4.4
84	Farm machinery	2.7	2.7
85	Construct., mining & oil field mach.	1.5	1.2
86	Material handling equip.	2.1	2.5
87	Metalworking machinery	1.2	1.3
88	Special industry machines	2.2	2.0
89	General industry machinery	1.9	1.9
90	Machine shop products	2.4	2.5
91	Computers & peripheral equip.	4.2	3.6
92	Typewriters & other office equip.	0.8	0.0
93	Service industry mach.	3.8	5.0
94	Electric transmission equip.	2.6	2.8
95	Electrical industrial apparat.	2.2	2.5
96	Household appliances	4.1	3.8
97	Electric Lighting & wiring	0.6	0.9

	Industry	1958-76	1959-73
98	Radio & TV receiving sets	6.9	6.8
99	Telephone & telegraph apparat.	4.2	5.2
100	Radio & communication equip.	3.1	3.6
101	Electronic components	4.2	4.5
102	Misc. electrical prod.	3.7	4.0
103	Motor vehicles	3.6	3.5
104	Aircraft	1.8	1.7
105	Ship & boat building & repair	2.3	2.1
106	Railroad equip.	3.1	3.7
107	Cycles, bicycles & parts	8.8	9.6
108	Other transp. equip.	0.8	1.6
109	Scientific, & control. inst.	1.3	0.5
110	Medical & dental inst.	3.2	3.2
111	Optical & ophthalmic equip.	5.7	6.1
112	Photographic equip & supplies	5.9	6.2
113	Watches, clocks	5.1	5.8
114	Jewelry & silverware	3.1	3.9
115	Musical inst. & sporting goods	2.9	2.7
116	Other misc. man. prod.	4.4	4.8
117	Railroad transp.	5.2	5.8
118	Local transit & intercity buses	0.2	-0.1
119	Truck transportation	1.6	1.7
120	Water transpotation	7.7	7.9
121	Air transportation	4.9	5.6
122	Pipeline transportation	7.9	8.7
123	Transportation services	-1.7	-1.4
124	Communications except radio & T.V.	5.6	5.3
125	Radio & T.V. broadcasting	-0.4	0.3
126	Electric utilities	4.4	4.9
127	Gas utilities	3.7	5.7
128	Water & sanitary services	-0.8	-1.0
129	Wholesale trade	3.1	3.6
130	Retail trade	1.4	1.8
131	Banking	0.0	-0.2
132	Credit agencies & financial book	-2.8	-2.5
133	Insurance	1.5	1.4
134	Owner-Occupied real estate	0.0	0.0
135	Real estate	3.0	3.3
136	Hotels & lodging places	1.8	2.3
137	Personal & repair services	1.0	1.4
138	Barber & beauty shops	-2.0	-2.5
139	Misc. business services	0.1	0.3
140	Advertizing	1.9	2.1
141	Misc. business services	1.8	2.0
142	Automobile repair	2.8	3.0
143	Motion pictures	2.7	1.7
144	Amusement & recreat. serv.	0.8	1.2
145	Doctors & dentists serv.	1.2	1.8
146	Hospitals	3.4	3.5
147	Other medical services	-1.7	-1.4
148	Educational serv.	1.2	1.7

149	Nonprofit organizations	1.5	1.9
150	Post office	0.3	0.6
152	Other Federal enterp.	0.4	2.4
153	Local government transit	-1.1	-0.6
154	Other state & local gov.	1.2	2.1
161	Households	0.2	0.2

Source: Bureau of Labor Statistics

are made on the basis of indexes of changes in these variables. Figure V-9 shows the U.S. manufacturing trade balance with each of these countries, and Figure V-10 shows total manufacturing trade balances of each of these countries.

Figure V-7 indicates that U.S. productivity growth in manufacturing compares unfavorably with that of other major industrialized countries. However, from Figure V-8, we also note that changes in unit labor costs in manufacturing compare favorably with these other countries. As shown in Figures V-9 and V-10, U.S. trade performance compared to these other countries has not been good. The relative performance of the United States is clearly not due to relative increases in unit labor costs. Apparently, other costs have risen more slowly abroad, so that the ability of their manufacturing sectors to compete was improved overall.

The remainder of this section summarizes the results of an empirical analysis designed to determine the effects of productivity changes on U.S. export shares.19/ Changes in productivity are also related to an important determinant of productivity, resources allocated to research and development.

3.4. Estimates of the Effects of Productivity Changes on U.S. Competitiveness

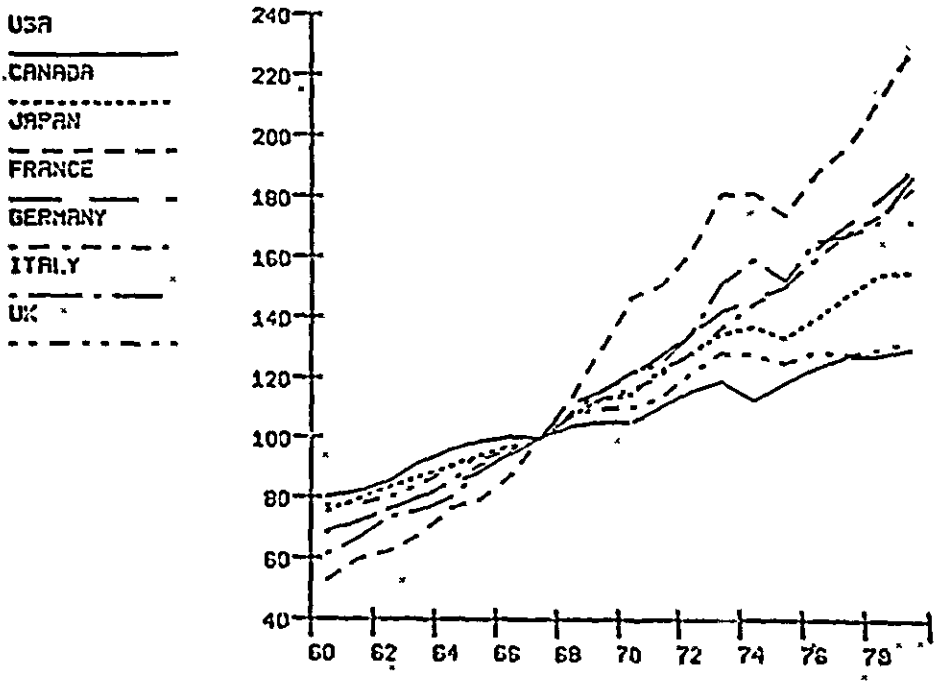
This section describes and summarizes an empirical analysis (Lee (1980)) which attempted to determine the extent to which variations in productivity growth help to explain the variations in U.S. export competitiveness. Two linkages were identified and measured: the link between changes in research and development spending (R&D) and other determinants of productivity and changes in productivity; and, the link between productivity and export shares. In order to analyze the first linkage, production functions were estimated with R&D expenditures included as an explanantory variable. To analyze the second linkage, the effects of relative productivity, the effects of exchange rates and price on export shares were examined.

Most previous specifications of production functions have used capital and labor as their determinants. They leave out or treat as a residual a crucial element, technological input. This exclusion may bias estimates of the contribution of capital and labor to production.

19/For a detailed description and empirical results of the production function estimates, see George Lee, "Research & Development, Productivity and Export Competitiveness" Department of State, mimeograph, 1980.

FIGURE V-7

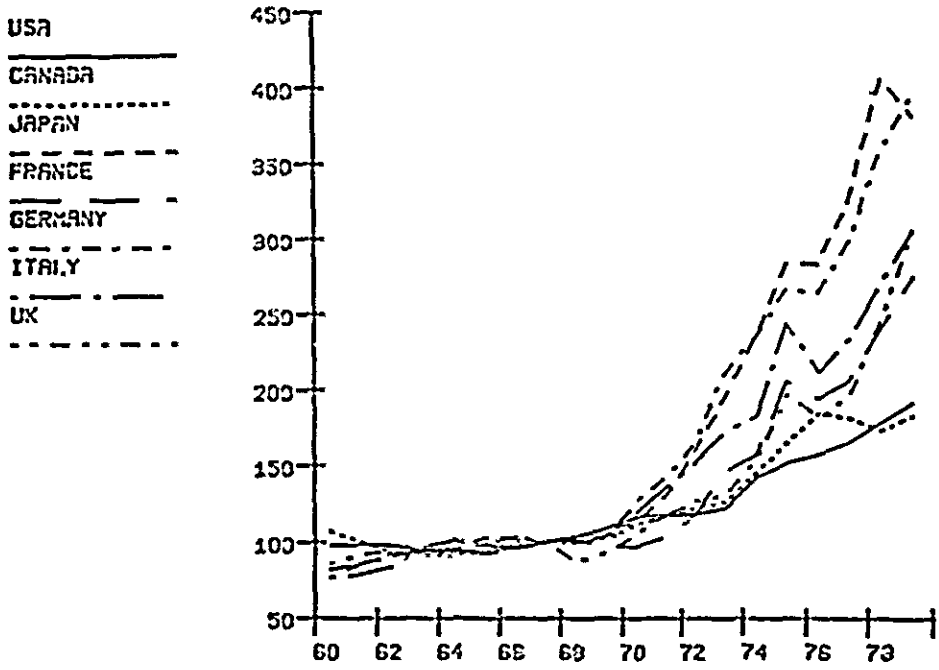
PRODUCTIVITY CHANGES
1961-1979



SOURCE: ILAB/OFER

FIGURE V-8

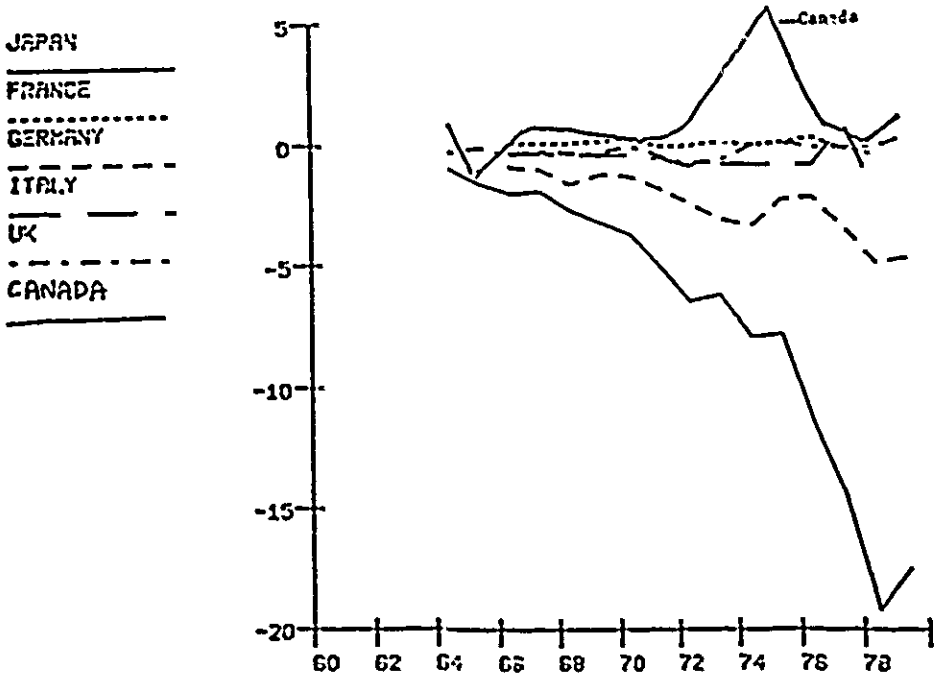
UNIT LABOR COSTS
1961-1979



SOURCE: ILAB/OFER

FIGURE V-9

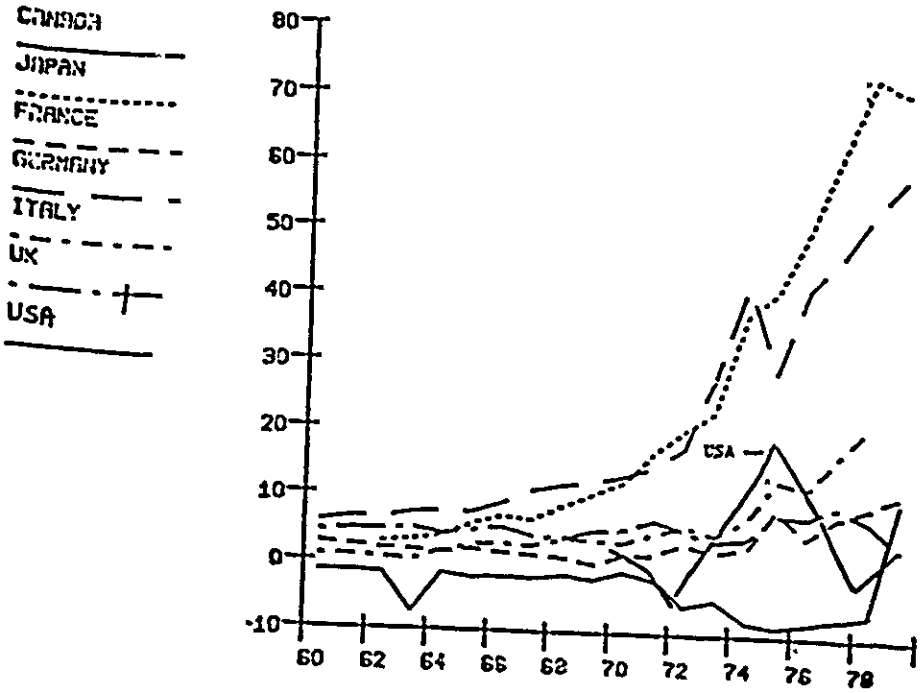
BILATERAL U.S. TRADE BALANCES
IN MANUFACTURING
1960-1979



SOURCE: ILAB/OTER

FIGURE V-10

TOTAL MANUFACTURING TRADE BALANCES
1961-1979



Source: ILAB/OPER

The incorporation of technology into the production function is a recent development in economic theory and, until recently, detailed data have been scarce . With the National Science Foundation publication of detailed research and development (R&D) data, it is now possible to estimate more fully the contribution of technology to output.

Perhaps the most significant aspect of the relationship between technological input (as measured by R&D expenditures) and output is the lag structure involved. (The lag structure refers to the time lag of the effects of R&D on output). These lags may vary significantly among industries and among countries. A determination of the possibly different lag structures involved between technology and output require that the measurement of technology be on a flow basis. An alternative approach is to treat R&D as a stock. This latter approach makes the specification of the production function more consistent with traditional economic theory, but cannot be used to identify the lag structure of particular industries nor of countries.

Another problem in estimating the effect of technology on production is that of separating out the effects of embodied versus disembodied technology. That is, of separating out which portion of the contribution of capital to output is due to increased physical quantities of capital and which portion of the contribution is due to improvements of the technological characteristics of the capital. The separation of embodied and disembodied technology was beyond the scope of the study summarized here.

In examining the linkage between R&D and output, the manufacturing sectors of the United States, Germany, France and Japan were examined, as well as the following disaggregated U.S. industries:

-- Paper and allied products ..... SIC 26
-- Chemicals and allied products ... SIC 28
-- Rubber and Plastic products ..... SIC 30
-- Stone, Clay & Glass products .... SIC 32
-- Non-Electrical Machinery ..... SIC 35.

The conclusions drawn from this analysis were:

-- Production functions estimated using lagged R&D measured as a flow differed from those with R&D measured as a stock. With the exception of non-electrical machinery, production functions estimated using the flow measure of R&D resulted in a much higher percentage of total output being attributed to R&D.

-- The timing of the effect of R&D on output varied from sector to sector. The chemical industry realized returns

from R&D most quickly, in only two years. The stone, clay and glass industry had the longest lag, nine years. For all of manufacturing the lag time was four years.

-- Among other countries, Japan seems to have the shortest lag structure (3-5 years) while France has the longest lag structure (6-8 years). The relatively short lag structure for Japan may be due to their tendency to adapt and improve on existing technology.

-- The relationship estimated between R&D and productivity in the United States indicated that R&D begins to have an effect on productivity in the fourth year and then again in the seventh year. The effect in the fourth year may reflect the results from efforts at product development while the effect in the seventh year may reflect efforts in basic research.

These results provide some quantitative support for the view that research and development efforts are a significant determinant of changes in productivity.

The results reported by Lee (1980) also showed that changes in productivity were, in turn, a significant determinant of export competitiveness. In particular, the relationship between export shares and productivity for the United States was examined for all manufacturing and two industries: chemicals and non-electrical machinery. The time period covered was from 1957 to 1977. Relative productivity, exchange rate and wholesale price were all found to be statistically significant. In all cases, relative productivity was among the more significant of the determinants of export shares, giving support to the hypothesis that productivity is one of the important determinants of export competitiveness.

3.5. Concluding Remarks

This section has attempted to show, both theoretically and empirically, how relative changes in productivity here and abroad affect the competitiveness of U.S. industries. The role of R&D expenditures in improving productivity was also examined. It was found that U.S. export competitiveness is indeed affected by lagged changes in productivity. Productivity, in turn, was found to be affected by changes in capital, labor and R&D, with the effect of R&D being felt in the manufacturing sector after a lag of about four years. The effects of R&D on productivity and of productivity on export shares were found to be significant, both statistically and proportionately.

4. THE IMPACT OF FOREIGN TRADE BARRIERS ON THE COMPETITIVENESS OF U.S. PRODUCERS

4.1. Overview

High foreign tariffs and restrictive nontariff barriers affect the competitive position of U.S. exports in world trade. The Multilateral Trade Negotiations (MTN) resulted in substantial industrial tariff cuts and new codes of conduct for international traders. These agreements will tend to enhance the U.S. competitive position in world markets.

The MTN did not, of course, achieve a reduction in all foreign barriers to U.S. exports. Some nontariff barriers (NTBs) under negotiation during the MTN were not part of the final package of agreements. Other NTBs were not addressed at all during the MTN. The agreement on safeguard practices is still under negotiation. Most developing countries have failed so far to become parties to the NTB codes and to lower substantially their high tariffs. Even in the developed countries, high rates will remain in post-MTN tariff schedules.

This section reviews the progress made toward lowering foreign barriers to U.S. exports during the MTN and examines the remaining barriers which adversely affect U.S. export competitiveness. To the extent possible, products and markets which benefited most from the MTN and those impaired by remaining barriers are identified.

In the next subsection, an overview of the aggregate impact of the MTN tariff reductions on U.S. exports is presented. This is then followed by a discussion of the nontariff barriers reduced during the MTN and an examination of the NTBs left uncovered at the conclusion of the MTN.

4.2. The Tokyo Round Tariff Reductions

4.2.1. Industrial Products

Industrialized Countries

The major developed countries will reduce their tariffs on U.S. industrial exports by an average of 40 percent. When the reductions are fully implemented, the average tariff rate imposed on U.S. industrial exports by our major trading partners will fall to 4.2 percent from 6.2 percent. Table V-13 shows that, after the reductions are fully in effect, Japan's tariffs on U.S. industrial exports will average 2.2 percent, Canada's 5.8 percent, and the European Community's (EC) average tariff will be 4.7 percent.

Table V-13

Tariff Concessions on U.S. Exports of Industrial Products by Major Developed Nations: Average Applied Rates Weighted by U.S. Exports* to Each Country (percent)

	EC	Canada	Japan	Average of all three
Average Base Rate	7.2	8.9	4.1	6.2
Average Concession Rate	4.7	5.8	2.2	4.2
Average Reduction	34.0	35.0	47.0	40.0

*Dutiable plus duty-free imports from United States.

Source: United States Trade Representative.

Table V-14 presents detailed sectoral tariff results from U.S. negotiations with Canada, Japan, and the European Community during the Tokyo Round.

Canada, by lowering tariffs, will significantly reduce many disparities between U.S. duties and its own on similar products. A major Canadian tariff concession is the phasing out of the average 15 percent "Made in Canada" duty on machinery imports. Other important Canadian tariff concessions were obtained by the United States on nonelectrical industrial machinery, paper, wood products, computers, photographic equipment, and scientific and controlling instruments. In most of these sectors, as can be seen in Table V-14, current Canadian duties average about 10 percent or above and are to be reduced by one half or more.

Significant Japanese tariff concessions were made in the key U.S. export sectors of computers, semiconductors, color film, electrical machinery, paper, and automobiles. For example, Japan will reduce its actual tariffs on U.S. products by an average of 51 percent in the automotive sector, by 67 percent in the office and computing equipment sector, by 53 percent in the electrical machinery sector, and by 33 percent in the nonconsumer electronic equipment sector.

The European Community tariff concessions on U.S. exports were significant on chemicals, paper, printing machinery,

Table V-14

TARIFF CONCESSIONS MADE BY THE EC, CANADA, AND JAPAN ON THEIR IMPORTS FROM THE WORLD AND THE UNITED STATES

Sector		EC		Canada*				Japan*			
		World	US	World (GATT)	World (Applied)	US (GATT)	US (Applied)	World (GATT)	World (Applied)	US (GATT)	US (Applied)
Textiles and Apparel	1976 Imports ($ millions)	11,955	880	1,733	1,7[illegible]	656	656	3,384	3,384	338	338
	Average Base Rate (percent)	10.8	11.6	23.4	22.8	22.7	21.7	6.7	5.5	2.7	2.0
	Average Concession Rate (percent)	8.3	8.8	20.9	20.7	19.6	19.3	5.5	5.4	2.0	1.9
	Average Reduction (percent)	23	24	11	9	14	11	17	1	25	6
Lumber and Wood Products	1976 Imports ($ millions)	5,580	372	456	456	371	371	4,101	4,101	1,457	1,457
	Average Base Rate (percent)	2.8	4.5	5.6	5.5	4.4	4.3	0.4	0.4	0.1	0.1
	Average Concession Rate (percent)	2.1	3.5	3.0	3.0	2.3	2.3	0.3	0.3	0.0	0.0
	Average Reduction (percent)	26	22	46	45	47	47	21	10	42	22
Paper Products	1976 Imports ($ millions)	6,586	869	572	572	469	469	564	564	256	256
	Average Base Rate (percent)	6.0	4.7	11.4	10.6	11.0	11.2	6.1	2.1	5.8	1.9
	Average Concession Rate (percent)	4.4	3.4	6.1	5.9	6.2	6.0	2.9	1.3	2.7	1.2
	Average Reduction (percent)	27	28	46	44	48	46	53	36	54	37
Industrial Chemicals and Fertilizers	1976 Imports ($ millions)	6,483	2,116	1,017	1,017	784	784	1,666	1,666	753	753
	Average Base Rate (percent)	6.9	6.9	9.8	5.2	9.8	5.1	6.[illegible]	4.5	5.5	3.5
	Average Concession Rate (percent)	5.2	4.6	5.4	3.9	5.4	3.8	3.9	3.4	3.2	2.7
	Average Reduction (percent)	25	33	45	26	45	25	44	25	41	24
Drugs, Soaps, Cleaners, and Toilet Preparations	1976 Imports ($ millions)	1,211	376	281	281	164	164	707	707	243	243
	Average Base Rate (percent)	9.6	9.7	13.8	12.1	14.2	12.7	10.9	7.2	10.5	6.8
	Average Concession Rate (percent)	6.2	6.0	9.1	8.2	9.5	8.9	5.3	5.5	5.4	5.1
	Average Reduction (percent)	35	38	35	33	33	30	48	24	49	25
Paints, Gum and Wood Chemicals, and Miscellaneous Chemical Products	1976 Imports ($ millions)	655	255	121	121	106	106	275	275	93	93
	Average Base Rate (percent)	6.8	7.9	13.6	11.7	13.7	12.0	5.4	3.5	8.3	5.3
	Average Concession Rate (percent)	4.6	5.2	9.0	8.6	9.2	8.8	3.5	2.9	5.3	4.3
	Average Reduction (percent)	32	34	34	26	33	26	35	17	36	20
Rubber and Plastics Materials	1976 Imports ($ millions)	2,363	876	1,325	1,325	1,016	1,016	583	583	202	202
	Average Base Rate (percent)	10.4	13.4	14.4	12.5	14.5	12.3	6.4	5.2	10.9	8.6
	Average Concession Rate (percent)	6.6	8.6	10.5	9.3	10.7	9.4	3.5	3.5	5.9	5.8
	Average Reduction (percent)	36	36	27	25	26	24	45	33	46	33
Leather and Products	1976 Imports ($ millions)	3,468	254	471	471	184	184	616	616	250	250
	Average Base Rate (percent)	5.2	1.5	15.4	15.1	8.3	8.0	6.3	6.3	1.3	1.3
	Average Concession Rate (percent)	4.1	1.0	13.0	13.0	6.2	6.2	6.2	6.2	1.3	1.3
	Average Reduction (percent)	21	35	15	14	25	23	5	3	3	3

Sector		EC		Canada*				Japan*			
		World	US	World (GATT)	World (Applied)	US (GATT)	US (Applied)	World (GATT)	World (Applied)	US (GATT)	US (Applied)
Stone, Clay, and Glass Products	1976 Imports ($ millions)	1,191	320	1,306	1,306	1,020	1,020	560	560	85	85
	Average Base Rate (percent)	2.8	5.6	5.4	5.0	3.6	3.2	3.5	2.7	5.6	4.3
	Average Concession Rate (percent)	2.1	3.9	3.4	3.1	2.3	2.0	1.9	1.8	2.9	2.8
	Average Reduction (percent)	24	27	38	38	37	37	46	33	48	34
Ferrous Metals and Products	1976 Imports ($ millions)	6,797	440	966	966	576	576	2,560	2,560	181	181
	Average Base Rate (percent)	4.2	4.0	8.9	7.9	8.9	7.8	1.0	0.7	3.0	1.6
	Average Concession Rate (percent)	3.2	3.0	5.8	5.2	5.6	4.9	0.6	0.6	1.2	1.2
	Average Reduction (percent)	24	26	15	15	37	37	41	15	58	24
Nonferrous Metals and Products	1976 Imports ($ millions)	11,806	1,194	835	835	505	505	4,125	4,125	219	219
	Average Base Rate (percent)	1.2	2.5	6.2	4.7	8.5	6.6	2.3	1.6	7.8	4.6
	Average Concession Rate (percent)	1.0	1.9	4.0	2.8	5.2	4.0	1.7	1.4	3.6	3.4
	Average Reduction (percent)	18	21	46	40	38	40	26	13	54	26
Hand Tools, Cutlery, and Tableware	1976 Imports ($ millions)	585	127	281	281	188	188	68	68	25	25
	Average Base Rate (percent)	8.6	6.9	17.6	17.5	17.2	17.1	8.9	6.9	8.5	6.4
	Average Concession Rate (percent)	6.5	4.6	10.4	10.4	10.0	10.0	4.8	4.8	4.3	4.3
	Average Reduction (percent)	25	34	41	41	42	41	46	31	49	33
Other Fabricated Metal Products	1976 Imports ($ millions)	1,257	303	623	623	448	448	150	150	85	85
	Average Base Rate (percent)	7.8	7.8	14.6	14.3	15.2	14.8	10.4	6.5	10.7	6.5
	Average Concession Rate (percent)	5.5	5.5	8.7	8.6	9.0	8.9	4.8	4.8	4.6	4.6
	Average Reduction (percent)	30	30	40	40	41	40	54	28	57	29
Construction, Mining, Agriculture, and Oil Field Machinery and Equipment	1976 Imports ($ millions)	1,628	695	2,913	2,913	2,504	2,504	217	217	99	99
	Average Base Rate (percent)	8.5	7.4	5.7	2.7	5.7	2.5	8.2	3.8	7.7	6.0
	Average Concession Rate (percent)	5.8	4.5	3.6	2.4	3.5	2.3	4.6	4.6	4.3	4.3
	Average Reduction (percent)	32	35	37	9	37	9	44	21	44	29
Office and Computing Equipment	1976 Imports ($ millions)	2,361	1,666	638	638	527	527	528	528	294	294
	Average Base Rate (percent)	7.7	6.9	13.2	10.3	13.3	10.0	17.0	15.0	18.5	16.2
	Average Concession Rate (percent)	5.7	4.9	8.4	8.4	8.5	8.5	5.2	5.1	5.3	5.3
	Average Reduction (percent)	26	30	39	36	38	35	69	66	71	67
Machine Tools, Other Metal-working Equipment, and Other Nonelectrical Machinery	1976 Imports ($ millions)	3,322	1,202	1,199	1,199	955	955	673	673	282	282
	Average Base Rate (percent)	6.1	6.2	13.5	9.8	13.8	10.1	9.5	6.0	9.8	5.9
	Average Concession Rate (percent)	4.5	4.5	5.7	5.4	5.8	5.4	4.7	4.7	4.4	4.4
	Average Reduction (percent)	26	27	58	45	58	46	50	22	55	26
Electrical Machinery, Power Boilers, Nuclear Reactors, and Engines and Turbines	1976 Imports ($ millions)	3,170	1,309	1,111	1,111	837	837	573	573	316	316
	Average Base Rate (percent)	6.5	6.5	15.6	12.0	15.6	11.8	10.2	7.4	11.0	8.1
	Average Concession Rate (percent)	4.4	3.9	9.3	9.0	9.4	8.9	4.1	4.1	3.8	3.8
	Average Reduction (percent)	32	40	40	26	40	24	60	45	65	53

Sector		EC		Canada*				Japan*			
		World	US	World (GATT)	World (Applied)	US (GATT)	US (Applied)	World (GATT)	World (Applied)	US (GATT)	US (Applied)
Consumer Electronic Products and Household Appliances	1976 Imports ($ millions)	1,609	665	845	845	496	496	255	255	121	121
	Average Base Rate (percent)	7.3	7.1	16.1	14.8	16.7	15.4	9.4	5.6	9.6	5.7
	Average Concession Rate (percent)	5.2	4.9	9.1	8.6	10.0	9.4	4.1	4.0	3.8	3.8
	Average Reduction (percent)	29	31	43	42	40	39	56	29	60	33
Scientific and Controlling Instruments	1976 Imports ($ millions)	2,978	1,311	574	574	400	400	698	698	351	351
	Average Base Rate (percent)	9.8	10.5	7.8	6.8	6.7	5.4	10.7	6.8	9.0	6.1
	Average Concession Rate (percent)	6.4	6.7	4.0	3.6	3.0	2.5	5.2	5.2	4.6	4.6
	Average Reduction (percent)	35	36	50	48	54	53	51	23	48	24
Photographic Equipment and Supplies	1976 Imports ($ millions)	1,200	537	317	317	194	194	212	212	144	144
	Average Base Rate (percent)	13.4	11.2	10.7	9.0	9.7	7.5	20.5	10.1	22.8	11.1
	Average Concession Rate (percent)	6.6	6.5	5.3	5.3	4.5	4.5	5.1	5.1	5.0	5.0
	Average Reduction (percent)	42	42	51	42	54	40	75	50	78	55
Communication Equipment and Non Consumer Electronic Equipment	1976 Imports ($ millions)	3,622	1,113	627	627	410	410	662	662	293	293
	Average Base Rate (percent)	12.3	12.0	15.5	15.4	15.5	15.4	11.8	8.1	11.9	9.0
	Average Concession Rate (percent)	10.6	10.4	9.0	9.0	8.9	8.9	4.2	4.2	4.2	4.2
	Average Reduction (percent)	14	14	42	42	43	42	65	48	65	48
Railroad Equipment and Miscellaneous Transportation Equipment	1976 Imports ($ millions)	1,446	184	275	275	379	379	292	292	10	10
	Average Base Rate (percent)	4.1	5.8	13.5	13.0	13.1	12.5	7.7	0.9	9.1	6.3
	Average Concession Rate (percent)	3.2	3.3	8.9	8.8	9.0	8.9	0.6	0.6	4.2	4.2
	Average Reduction (percent)	22	43	34	32	31	29	92	33	54	34
Aerospace Equipment	1976 Imports ($ millions)	1,521	1,210	474	474	435	435	354	354	328	328
	Average Base Rate (percent)	5.2	5.3	6.5	2.1	6.5	2.1	14.7	11.7	14.7	11.8
	Average Concession Rate (percent)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Average Reduction (percent)	100	100	100	100	100	100	100	100	100	100
Automotive Equipment	1976 Imports ($ millions)	3,039	439	855	855	561	561	294	294	126	126
	Average Base Rate (percent)	11.6	11.5	13.3	10.5	12.6	8.5	21.9	6.3	18.7	6.3
	Average Concession Rate (percent)	9.6	7.7	7.1	6.4	6.2	5.2	3.1	3.1	3.1	3.1
	Average Reduction (percent)	17	33	47	39	51	39	86	51	83	51
Miscellaneous Manufactures, Toys, Musical Instruments, Furniture, etc	1976 Imports ($ millions)	4,266	504	1,300	1,300	898	898	807	807	211	211
	Average Base Rate (percent)	5.6	5.9	13.1	11.9	12.3	10.8	8.8	6.9	7.9	6.3
	Average Concession Rate (percent)	3.4	3.6	7.2	7.1	6.5	6.5	4.3	4.2	3.6	3.5
	Average Reduction (percent)	38	39	46	40	47	40	51	39	54	44
All Industrial Products**	1976 Imports ($ millions)	97,067	19,927	22,005	22,005	15,414	15,414	30,258	30,258	8,212	8,212
	Average Base Rate (percent)	6.3	7.2	12.0	10.1	11.0	8.9	5.0	3.2	6.2	4.1
	Average Concession Rate (percent)	4.6	4.7	7.4	6.9	6.4	5.8	2.5	2.3	2.3	2.2
	Average Reduction (percent)	2[illegible]	34	38	32	42	35	50	28	62	47

NOTE Imports shown are dutiable plus duty free imports

* There are hundreds of tariff rates actually applied to imports by Canada and Japan which, for reasons of domestic economic policy, are lower than the rates which are either legally bound to other countries as a result of past negotiations or contained in these tariff schedules as the permanent rates. Japan or Canada could raise these applied rates back up to their legal rates at any time without violating any international agreements

** Industrial imports do not include petroleum which was excluded from the tariff negotiations

automated metalworking machine tools, electrical machinery, scientific and controlling instruments, and photographic equipment. For example, in the photograpic equipment sector, the EC reduction will be from an average tariff of 11.1 percent on U.S. products to an average rate of 6.5 percent -- a 42 percent reduction.

Significant tariff reductions were also negotiated on U.S. exports to other developed countries, including the Nordic countries, Australia, New Zealand, Austria and Switzerland.

Developing Countries

The agreements reached with the developing countries primarily contain commitments not to increase tariffs on specified items beyond a stated level. The right of trading partners to compensation will be created if these commitments, known as bindings, are violated. In addition, there are commitments not to impair the value of a tariff concession through the use of nontariff measures, such as the use of restrictive licensing.

4.2.2. Agricultural Products

Agricultural tariff cuts by developed and developing countries will especially benefit U.S. exporters of high-quality beef, pork, turkey, soybeans, fresh and canned fruits, fruit juices, almonds and tobacco.

Developed Countries

Agricultural tariff concessions from developed countries include:

--Japan's average tariff cuts of 18 percent on U.S. agricultural exports of fresh grapefruit, pork, chicken legs, fresh lemons. Japan also agreed to the binding of the current duty-free status of soybeans, a product accounting for $770 million of U.S. trade in 1976.

--Concessions by the EC covering about $1 billion of U.S. exports (1976). The most significant EC concessions consisted of access assurances in duty cuts, or adjustments in levies, with respect to beef, variety meats, tobacco, rice, poultry meat, grapes, prunes, canned peaches, and canned fruit cocktail.

--Wide-ranging Canadian agricultural concessions, significant in terms of market access and market security. Duty harmonization for products moving both ways across the border, a major element in the negotiations, was achieved for live cattle, pork, corn and potatoes.

--Substantial concessions by other developed nations on agricultural tariffs important to U.S. exporters. For instance, Finland made tariff concessions on U.S. agricultural products valued at $21 million (three-fourths of these cuts concern fruits and vegetables); the Swiss eliminated the existing duty of 12 francs per 100 kilograms on almonds (almonds accounted for over $5 million in U.S. 1976 exports to Switzerland); New Zealand's most important agricultural concession was a duty cut on unmanufactured tobacco from NZ $73.78 to NZ $70.00 per kilogram; Austria's concessions include an important reduction in duties on almonds in the shell (from 56 to 25 shillings per 100 kilograms), prepared poultry meat, canned peaches, dried plums and prunes, and canned fruit cocktail.

Developing Countries

Concessions granted by developing countries cover approximately $3 billion in 1976 U.S. exports. These concessions include: bindings of previously unbound tariffs at current rates and rate reductions in already bound tariffs, removing or liberalizing import licensing requirements, and liberalizing other nontariff measures covering soybean products, including vegetable proteins, tallow, fresh fruits, nuts and poultry.

4.2.3 High Tariffs Remaining After the MTN

Even after the cuts are fully in effect, some tariff rates will remain high. For example, the Japanese tariff will be over 10 percent on U.S. exports of small arms, plastic products and plastic resins including polystyrene, polyethylene and polyproprolene. In the EC, U.S. exports of telecommunications equipment will face an average tariff of 10.4 percent. Semiconductor exports to the EC will face an even higher rate -- 17.0 percent. Other U.S. exports facing high EC tariffs include soap and cosmetics (11.0 percent), motor vehicles (10.0 percent, and plastics (10.3 percent). Canada will also retain several high rates against U.S. exports. Soaps and cosmetics exported from the U.S. to Canada will face an 11.0 tariff while still picture projectors exported to Canada will face a 9.2 percent rate. Metal fastener exports from the United States to Canada will face an 11.2 percent tariff after the MTN tariff reductions become effective on January 1, 1987.

4.2.4. U.S. Trade Impact of the Tokyo Round Tariff Reductions

Table V-15 presents estimates of the aggregate impact of the MTN tariff cuts on U.S. trade under the alternative

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Table V-15

Aggregate U.S. Trade Effects Resulting From Tariff Reductions Negotiated in the MTN
(Exports F.a.s.; Imports C.i.f.; Millions of 1976 Dollars)

	Total	Manufactured Goods	Primary Agriculture*	Mining
		Fixed Exchange Rates		
Export Change	3,300	3,200	112	11
Import Change	2,600	2,600	11	6
Net Trade Change	+700	+600	+101	+5
		Flexible Exchange Rates		
Export Change	2,900	2,868	46	-4
Import Change	2,900	2,885	7	8
Net Trade Change	0	-17	+39	-12

*Primary agriculture includes input-output sectors 101-104. Processed agricultural goods are included in manufactured goods.

Source: Thomas Bayard and James Orr (1980).

assumptions of fixed and flexible exchange rates.[20] Overall, the tariff cuts are expected to have a very small impact on total U.S. exports and imports -- both should increase by about $3 billion which is approximately 2 to 3 percent of 1976 trade levels.

Although the MTN tariff reductions will tend to have a small measurable effect on U.S. aggregate trade, they may have a relatively large impact on specific U.S. industries. Table V-16 lists estimated increases in U.S. exports due to the MTN tariff cuts by industrial sector.

The major U.S. export gains tend to be concentrated in the high technology, skilled-labor intensive sectors, such as aircraft, computers, and semiconductors, in which the U.S. traditionally has maintained a strong competitive edge. These estimates are based on the 1976 trade data, the latest foreign import data available on the same basis as tariff schedules. There have been important changes in international trade since 1976 which may offset, in part, the expected U.S. export gains. The emergence of Japan and Europe as potential competitors in semiconductors and aircraft are examples of two recent developments which may tend to slow the rate of growth in U.S. exports of these products. Another potential area of concern is in the petrochemical sector, the exports of which may be adversely affected by U.S. decontrol of oil and natural gas prices.

4.3. Nontariff Barriers Liberalized in the MTN

The main thrust of the Tokyo Round was to modernize the international trading system. This was achieved through the creation and acceptance by major negotiating countries of new obligations designed to minimize the increasingly trade distorting effects of major nontariff barriers. This was the first time such nontariff barriers have been substantially liberalized.

Nontariff barriers (NTBs) are a complex field. They are more subtle, diversified and changeable than tariffs. They are, furthermore, less susceptible to easy identification and measurement than tariffs. Some such measures have been put in place for the achievement of national goals (e.g., goals related to security, health, or safety). These can have trade distorting effects incidental to their main purpose. Other NTBs are directly applied with the aim of restricting imports.

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[20] For a more detailed analysis of the impact of the Tokyo Round see Bayard and Orr (1980) and Deardorff and Stern (1979).

Table V-16

Changes in U.S. Exports as a Result
of the MTN Tariff Reductions
(Fas Values; Thousands of Dollars)

2 Digit I-O Code	Industry	Exports ($000)
	Agriculture, Forestry and Fisheries	
1	Livestock and Livestock Products	3065
2	Other Agricultural Products	107094
3	Forestry and Fishery Products	1355
4	Agriculture, Forestry, Fishery Services	76
	Mining	
5	Iron and Feroalloy Ores	1265
6	Non-ferrous Metal Ores	496
7	Coal	5717
8	Crude Petroleum and Natural Gas	67
9	Stone and Clay Mining	1467
10	Chemicals and Fertilizer Minerals	1792
	Construction	
11	New Construction	0
12	Maintenance and Repair	0
	Manufacturing	
13	Ordnance	9874
14	Food Products	174627
15	Tobacco Products	3374
16	Fabrics, Yarn, Thread	29964
17	Misc. Textiles, Floor Coverings	10873
18	Apparel	14211
19	Misc. Fabricated Textiles	5541
20	Lumber Products	17522
21	Wodden Containers	200
23	Other Furniture, Fixtures*	6734
24	Paper Products	144543
25	Paperboard Containers	7781

2 Digit I-O Code	Industry	Exports ($000)
26	Printing & Publishing	73533
27	Chemicals	162755
28	Plastics	83156
29	Drugs and Toiletries	52477
30	Paint Products	4436
31	Petroleum Refining	9136
32	Rubber, Miscellaneous Plastics	55867
33	Industrial Leather, Tanning	5668
34	Footwear, Other Leather Prods.	3614
35	Glass Products	7492
36	Stone & Clay Products	16715
37	Primary Iron & Steel	27009
38	Non-ferrous Metals	7799
39	Metal Containers	1616
40	Heating, Plumbing, Fabricated Structural Metal Products	8252
41	Nuts, Bolts, Metal Stampings	12467
42	Other Fab. Metal Products	46969
43	Engines and Turbines	34124
44	Farm Machinery	18312
45	Construction and Mining Equipment	87129
46	Materials Handling Equipment	10256
47	Metalworking Equipment	61224
48	Special Industry Equipment	49205
49	General Industrial Equipment	40352
50	Machine Shop Products	1023
51	Office Machinery	428137
52	Service Industry Machinery	21087
53	Electrical Machinery	60269
54	Household Appliances	38847
55	Electrical Lights & Wiring	51051
56	Radio & T.V. Sets	99978
57	Electronic Components	202600
58	Misc. Electrical Machinery	68318
59	Motor Vehicles	145919
60	Aircraft, Parts	426339
61	Other Transportation Equipment	28927
62	Scientific Instruments	119490

2 Digit I-O Code	Industry	Exports ($000)
63	Optical Equipment	67689
64	Miscellaneous Manufactures	84065
	Transportation, Communications, and Utilities	
65	Transportation, Warehousing	0
66	Non-Radio or T.V. Communications	0
67	Radio and T.V. Broadcasting	0
68	Utilities	0
	Wholesale and Retail Trade	
69	Wholesale, Retail Trade	0
	Finance, Insurance, Real Estate	
70	Finance and Insurance	0
71	Real Estate and Rental	0
	Services	
72	Hotels, Personal Services	0
73	Business Services	0
75	Auto Repair & Services	0
76	Amusements	0
77	Medical, Educational SErvices	0
	Government Enterprises	
78	Federal Gov't. Erterprises	0
79	State, Local Gov't. Enterprises	0
	Other Industries	
81	Business Travel, Entertainment	0
82	Office Supplies	0

*Combined estimate for sectors 22 and 23.

Source: Bayard and Orr (1980).

An inventory of nontariff barriers as part of the GATT preparation for the MTN revealed a wide variety of nontariff barriers. They were grouped under these broad headings: government participation in enterprises in market economy countries, state-trading, customs and administrative entry procedures, product standards applicable to imports and exports; and limitations on imports and exports through artificial price mechanisms, or quantitative restrictions.

Several multilateral codes designed to limit the trade distorting effects of nontariff barriers measures were agreed to in the MTN:

a. Codes on subsidies, countervailing measures and antidumping practices;

b. A code on technical barriers to trade requiring signatory countries to use fair and open procedures in adoption and application of product standards;

c. A code on government procurement, which opens a substantial portion of purchases by signatory governments to bids from foreign producers;

d. A code on customs valuation which provides for predictable and uniform practices of appraising imports for assessment of duties; and,

e. A code on import licensing which reduces unnecessary and unduly complicated licensing requirements. Agreements were also reached on a number of country and product-specific nontariff barriers.

These codes, except the codes on government procurement and customs valuation, became effective January 1, 1980. The codes on government procurement and customs valuation will become effective January 1, 1981. The United States and the European Community implemented the valuation code on July 1, 1980.

The Government Procurement Code is designed to reduce or eliminate discriminatory purchasing practices of governments, government enterprises, quasi-autonomous entities, and related units of government.

The code establishes the principle of nondiscriminatory treatment for suppliers from countries which adhere to the code and provides rules for fair and equitable procurement practices. The code provides much needed transparency in procurement regimes, and establishes procedures for settling disputes. The code will not apply to all entities, but only to those designated by the signatories; nor will it apply to goods having an important national security dimension.

From the lists of covered government entities, signatories have generally excluded those in the fields of power generation, transportation and telecommunications. In addition to problems concerning product coverage, implementation of the Government Procurement Code will also have to take into account the constitutional inability of some national gove.nments to regulate the procurement practices of their political subdivisions.

The Subsidies/Countervailing Duty Code is designed to minimize the disruptive effects of government subsidies (bounties or grants) on international trade. Export subsidies provide advantages to foreign producers competing in the United States or third markets at the expense of U.S. suppliers, while subsidies to domestic industries in foreign countries may impair competitiveness of U.S. exporters in these markets.

The Code prohibits the use of export subsidies on industrial products and primary mineral products. The code also covers local processing bounties, regional aids and other domestic assistance. These latter forms of subsidy, however, constitute a new area which will need further interpretation and "case law" experience. Developing countries are given a limited exception from these provisions.

The Code calls for transparency (visibility) in subsidy programs and provides for consultations if requested by other signatories. Governments party to the Code must provide the GATT with information on the existence, amount, and effects of a subsidy, if requested.

Many U.S. industries will benefit substantially from these provisions, as will the aircraft industry through the Aircraft Agreement. Subsidies in France and the United Kingdom have often hindered the U.S. aerospace industry from exporting its products to these and other markets.

The Standards Code is designed to minimize the restrictive impact of standards and technical regulations on trade. The Code stresses the use of open and transparent procedures for standards and certification systems. It also provides for the right of access to national and regional certification systems, and recommends the increased adoption of international performance standards.

The Code's provisions apply to new and revised standards and certification systems. Consequently, implementation of the Code will not involve any change to existing standards or certification systems. Nonetheless, if a signatory believes that an existing measure conflicts with the Code's obligations, it may raise the matter in the Committee of Signatories and use the dispute settlement mechanism to seek either a mutually satisfactory solution or a Committee recommendation that the

standard be withdrawn. Unwillingness to undertake Committee recommendations may give rise to countermeasures.

A principal code obligation is that national and regional certification systems grant access (i.e., permit goods to be certified under the rules of the system) to foreign suppliers on the same basis as access is granted to domestic or regional-member suppliers. Denial of such access has been a major problem for U.S. exporters.

The U.S. exports most adversely affected by current standards and certification systems include construction machinery, transportation equipment, (motor vehicles and aircraft), pharmaceuticals, plastics, rubber products, laboratory glass items, electronic apparatus, consumer electronics, and photographic equipment.

The Customs Valuation Agreement (code) will result in internationally applied customs valuation rules which are based, to the greatest extent possible, on transaction values. It will lead to greater predictability and certainty in the determination of customs values on U.S. exports and eliminate the current protective features of foreign customs valuation systems. Such features include arbitrary uplifts and other adjustments to the customs value of foreign supplies.

U.S. exports benefiting from this code include plastic resins, drugs and medicines, and other high technology products.

Another customs matter of importance to U.S. exporters is improper product classifications. Arbitrary product classifications deter U.S. exports by placing improperly high tariffs on products and by causing lengthy disputes over the appropriateness of classifications. Work in this area is scheduled for completion in 1985.

The Aircraft Agreement provides a comprehensive basis for free trade in civil aircraft and an international set of rules of conduct for such trade. Counterpurchase arrangements (offsets) are specifically disallowed in this sector. The agreement allows U.S. parts manufacturers to compete for foreign airframe subcontracts on the same duty-free basis as other parts manufacturers. It also prohibits governments from requiring airlines or other buyers to purchase nationally-produced aircraft, or from exerting unreasonable pressures on them to do so. It also broadens the coverage of the standards code as it applies to the aircraft sector.

All of the nontariff barrier codes described above, except government procurement and, of course, the aircraft agreement, apply to agricultural as well as to industrial products and are potentially important to both for many years to come.

Other nontariff barrier agreements concluded during the MTN include:

--Canada's agreements to modify the discriminatory practices of provincial liquor boards. In the future, the mark-ups in the retail prices of imported beers and distilled spirits, as well as their stocking and distribution, will be guided solely by normal commercial considerations.

--Concessions made by the EC on distilled spirits. In a letter to the U.S. MTN Delegation, the EC Commission promised to do everything in its power to eliminate the discriminatory practices of France and the Federal Republic of Germany with respect to imported distilled spirits.

--Canadian agreement to phase out the so-called "Made in Canada" terminology found in its Customs Tariff with a view toward eliminating such terminology from the tariff schedules. New tariff descriptions for the affected tariff items will be in place no later than 1986, with the first round of major changes taking place in 1984. This will be of substantial benefit to U.S. exporters of machinery.

--Two agricultural arrangements negotiated in the MTN: The Bovine Meat Arrangement and the International Dairy Arrangement.

The Bovine Meat Arrangement is primarily an information/consultation mechanism with no economic provisions. The arrangement covers beef animals and beef products. A major objective is "to promote the expansion, ever greater liberalization and stability of the international meat livestock market for the mutual benefit of both importing and exporting countries."

The International Dairy Arrangement (IDA) has as its objective the expansion and liberalization of world trade in dairy products under stable market conditions. The arrangement covers fresh and preserved milk, butters, cheese, and casein. The economic provisions of the arrangement provide for minimum export prices for milk powder, milk fat, butter and cheese.

--Several foreign quotas on U.S. exports of agricultural products were increased during the MTN, especially by Japan. Japan undertook to increase imports of high-quality beef, within the hotel and general quota, by 14,000 metric tons per year (m.t.) on a global basis by Japanese fiscal year 1983. Also, it is estimated that Japan's expansion of import quotas for fresh oranges will result in an increase of approximately 67,000 m.t. per year over 1976 levels by 1983. Japan also raised its quota for grapefruit juice and for concentrated orange juice.

4.4. Trade Barriers Not Covered in MTN

The MTN agreements will benefit U.S. exports to developed and developing countries. However, not all trade barriers were covered in the MTN. Some nontariff barriers to U.S. exports remain, because they were not part of the negotiations. Some remain because of lack of agreement among the major participants in the MTN.

Agreement on a Safeguard Code is the most important unfinished negotiation of the MTN. Although progress was made in outlining the general shape of a possible international agreement, a number of key issues are still in the process of negotiation. The most controversial safeguards issue is whether to permit restriction of imports from one or a few (rather than all) supplying countries, when it can be established that imports from these countries are the cause of injury.

The principal nontariff barriers not covered in the MTN are cartels, state trading, government participation in private enterprises and preferential trade agreements. In addition, the MTN did not cover NTBs used to conserve foreign exchange reserves, such as countertrade pacts and bans on non-essential and luxury imports, and to assist infant industries.

4.4.1. Developing Country Barriers Not Covered in MTN

A complex network of barriers designed to promote industrialization and conserve foreign reserves is employed by developing countries (LDCs). The MTN will bring greater discipline in the use of several trade barriers by the signatory countries. However, several important LDC trade barriers remained outside the scope of the MTN.

Developing countries offer the greatest potential for the expansion of U.S. exports. Even now, against a complex network of trade barriers, the United States exports more to developing markets than to Japan and Western Europe combined.

Import barriers are used by developing countries to assist domestic industries and to raise government revenue. In fact, most LDCs rely on customs revenue for the bulk of their government revenue. It is obtained by a combination of high tariff rates, import surtaxes, and customs valuation "uplifts" which raise the value of imports on which tariffs and surtaxes are levied. Developing countries, as well as developed countries (DCs), rely on restrictive nontariff barriers to promote "infant" domestic industries and to conserve foreign exchange reserves. State trading firms, state enterprises, and state-private joint ventures help maintain such nontariff import restrictions.

To assist domestic industries, imports of items "like or similar to" domestically made items may be prohibited or restricted through local content rules. Local content rules specify that a minimum share of locally available materials and supplies be contained in domestically manufactured products. U.S. exports of unfinished metals and mineral manufactures are particularly affected by LDC import bans on products like or similar to the made in the LDC. Local content rules potentially act to restrict U.S. exports of industrial supplies and intermediate goods. More importantly, however, when local content rules are joined with high tariffs to protect "infant industries", U.S. exports of consumer and other finished goods are impaired.

To conserve foreign reserves, LDCs frequently (and DCs occasionally) prohibit imports of luxury and nonessential items. Luxury imports are mainly consumer proucts, such as autos, large household appliances, residential air conditioning units, and other high unit-value manufactures. Nonessential imports are frequently sophisticated machines, advanced technology equipment, and highly technical industrial supplies, such as high temperature metals. Nonessential import bans are also used to control inventory speculation and to enforce industrial production goals and export targets set by the central government.

Foreign exchange reserves are also conserved by linking exports to imports. A developing country may require its importers to match in value their imported foreign supplies with domestically-made exports. For instance, Greece will allow $1 million in imports only if the importer agrees to export $1 million in Greek-made products. Turkey has imposed a variation of this practice. A manufacturing machine may be imported, if 30 percent of the resulting output is exported.

4.4.2. Investment Incentives and Performance Requirements

The U.S. Government has a long-standing policy of generally maintaining open borders for both outward and inward international investment and of avoiding intervention in the investment process. Our view has always been that the free flow of investment responding to market forces will normally result in the maximum economic benefit to the United States and that there is no basis for the U.S. Government, as a general policy, to attempt to make judgments on the extent to which certain investments may result in a greater or lesser return to any particular factor of production. This proposition, however, is based on the assumption that other governments also allow market forces to operate. When they intervene, the process is distorted and it is less apparent that U.S. direct investment abroad benefits the U.S. economy.

Investment incentives and performance requirements can also affect U.S. competitiveness. The policies of foreign governments toward investment made in their countries by multinational companies can have serious effects on U.S. trade. Many governments offer special incentives to multinational companies to encourage them to make investments which might not otherwise be made in their country and, therefore, which can be at the expense of investments in the United States and of exports from the United States.

Foreign governments also frequently establish performance requirements for these investments in order to maximimize the proportion of total worldwide production of the multinationals which is done in their country and in order to maximize the exports and minimize the imports of the affiliates located in their country.

These policies can have the same beggar-thy-neighbor effects on trade as export subsidies and competitive exchange rate devaluations, which are circumscribed by the General Agreement on Tariffs and Trade and the Articles of Agreement of the International Monetary Fund. The U.S. Government is giving high priority to the effort to negotiate rules of restraint on governments' intervention in the investment process and to develop a case for initiating countermeasures under existing international rules. The United States, therefore, has undertaken initiatives bilaterally and in multilateral fora to obtain agreement on rules to restrain governmental intervention in the international investment process. We have also begun to consider the possibility of taking countermeasures under existing GATT rules. Incentives may run counter to the Subsidies/Countervailing Measure Code and some types of performance requirements, particularly those intended to maximize local content, may violate GATT Articles II, III (Sections 1 and 5), and XI.

4.4.3. Countertrade

When an exporter is required to link the sale of his product to the import of some specified quantities of other products, the arrangement is known as countertrade. Acceptance of payment in kind, as a precondition for export sales, may well take place at the expense of third party suppliers. Furthermore, the long-term nature of many countertrade agreements may result in the locking in of uneconomic trade relationships for periods as long as twenty-five years.

There are a variety of forms which countertrade agreements can take. The two most common types are compensation and counterpurchase arrangements.

Compensation arrangements, the most rapidly growing type in world trade, require exporters of high technology machinery, industrial complexes and technical know-how to accept payment in the form of goods produced with their equipment or know-how. Such arrangements are also known as buy-back agreements, co-production agreements, allocated share of output agreements, or industrial cooperation agreements (in East-West trade). Compensation arrangements are most prevalent among non-market economies and are of growing importance between market and non-market economies.

An older form of countertrade is the counterpurchase agreement requiring exporters of machinery, know-how and advanced manufactures to accept payment in unrelated products. While counterpurchases are nominally cash transactions, the two parties, in effect exchange goods of equivalent value. Counterpurchase agreements are also known as countersales, offset trading, parallel trading, reciprocal trading or counterdeliveries. General industrial supplies and standardized consumer products are most frequently traded under counterpurchase arrangements. The MTN Aircraft Agreement prohibits offset sales for aircraft and related items.

Concern about the impact of countertrade arrangements on U.S. trade competitiveness is further stimulated by evidence that an increasing proportion of world trade is affected by such transactions. The Commerce Department has established that in the early 1970s, 10 to 20 percent of world trade was countertrade.21/ Some private estimates have placed countertrade at a much higher proportion of current world trade.22/

Until the embargo on oil exports and multifold increases in the price of imported oil in 1973/74, countertrade was primarily limited to exchanges among eastern European countries and of these countries with Western Europe. Such trade arrangements serve the needs of Eastern Europe by limiting expenditures of scarce foreign exchange. Moreover, countertrade may open markets otherwise inaccessible. The Morgan Guaranty Bank has estimated that one quarter of all East-West trade is under countertrade arrangement. Roughly half of all Eastern European trade with LDCs takes place under countertrade arrangements.

21/Countertrade Practices, Department of Commerce Publication, April 1980.

22/Peter Jankovic, Managing Director of ALCON (Compensation Trading Ltd.). Quoted by Jules Arbuse in "Exchange Is not Robbery: Or Is It?" International Marketing.

Both industrialized and developing countries expanded their use of countertrade measure after 1973/74. Industrialized countries have struck countertrade deals with the major oil exporters both to increase security of supply of imported oil and to support the general expansion of exports. According to Eliot Janeway, the major industrial countries, with the exception of the United States, trade chemicals, steel, and machinery for oil. In addition, the non-oil developing countries after 1973/74 have, in some instances, sought to limit foreign exchange expenditures and to support exports by insisting on countertrade arrangements when importing from industrialized countries. Japan has made a number of countertrade arrangements with LDCs. Western European countries have increased the proportion of their trade with LDCs falling under countertrade arrangements. Less than 10 percent of trade between developed countries, however, falls in this category.23/ Among the developed countries the United States has the smallest percentage of countertrade arrangements.

Countertrade encourages discriminatory practices. Exporters unwilling to enter into countertrade agreements may be excluded from consideration. An importing country that is short of foreign reserves may select a supplier on the basis of willingness to enter a countertrade deal rather than on the basis of quality or price of the product. The transaction is neither transparent, nor subject to international scrutiny. There have been press reports of countertrade terms which appear to be contrary to the most-favored-nation (MFN) and non-discrimination principles of the General Agreement on Tariffs and Trade (GATT). For instance, countertrade agreements often prohibit competition in a third market by either party or specify the export market(s) to be served by the producer. All countertrade arrangements are bilateral exchanges, often to the exclusion of other competitive exports, and sometimes reflecting other than purely commercial, considerations. As such, they may impair the United States ability to export.

4.4.4. Other NTBs Not Covered in the MTN

Although many of the same nontariff barriers are found in developed as well as in developing countries, they are applied more selectively in the former group of countries. For instance, Algeria channels all imports through state trading firms; Japan only channels imports of tobacco and a few other agricultural products through state trading firms. U.S. export competitiveness is adversely impacted in particular product sectors by developed country nontariff barriers.

23/"Bartering," Industry Week, March 28, 1977.

Preferential trade agreements were outside the scope of the MTN and are an excepted part of the international scene under the rules of articles of the GATT. They provide for reductions or the elimination of tariffs or quotas on imports from participating countries, while imports from non-participants are subject to the quota or MFN duty rate. The difference between the MFN and preferential rates of duty prevents U.S. exporters from competing fully in preferential areas. U.S. exports face such preferential trade arrangements in several areas of the world.

U.S. export competitiveness in industrial products is especially affected by the recently formed European Industrial Free Trade Zone composed of members of the European Community and the European Free Trade Area (EFTA). Industrial product trade within this area is free of duty; product imports from non-members are subject to duty levies. U.S. exports of paper products, for example, are particularly impacted by the tariff disparities in the EC-EFTA free trade area.

One particular discriminatory provision of p.eferential trade agreements is the "rules of origin" clause. Rules of origin prevent exporters in non-member countries from avoiding some duty assessments by shipping a product to a preferential country with a low external tariff, and then re-exporting it duty-free to a partner with a higher external tariff. The rules of origin in the EC's preferential agreements with the EFTA nations work against U.S. exports, especially parts and components exports. For example, boilers and machinery made in EFTA would lose their duty-free status if the value of U.S. components were greater than 5 percent of the total value of the finished product.

When the EC expands, Spain and Greece will gain a competitive advantage vis-a-vis U.S. exporters to the EC and EFTA countries. Spain and Greece will be able to export industrial products to member EC or EFTA free of duty. U.S. exporters to Western Europe will face a tariff disparity of nearly 12 percent on electrical equipment when competing with other Western European exporters.

Bilateral agreements which restrict trade (e.g., EC-Japan trade pacts for shipbuilding, autos, steel and televisions) affect U.S. export competitiveness by restricting imports and diverting trade. These pacts are frequently not subject to international surveillance because they are (a) industry-to-industry agreements or (b) otherwise not available for international scrutiny and assessment of trade effects. On of the U.S. goals in the negotialion of a Safeguards Code has been to bring these arrangements under international surveillance and discipline.

Cartels are discriminatory because they are formed to control production, prices and markets. Although most cartels are relatively short-lived, their effects may be long lasting as traders act to protect their interests against renewed cartel activity. Japan's temporary import cartels for domestic industries suffering from world-wide business slowdowns are now dismantled. When they were in effect in the mid-1970s, U.S. export competitiveness in Japan was impaired in paper and related products, fabricated metal products, basic metals, and chemicals.

State enterprises and state trading firms can be major nontariff barriers to U.S. exports because of the procedures they employ. State enterprises and state trading firms need not necessarily impose foreign barriers to U.S. products. However, in practice, the usual state trading firms or state enterprise restricts imports, officially and unofficially, through a variety of administrative devices. These restrictions are sometimes undertaken for social objectives, national development objectives, and other non-commercial considerations. State trading is addressed, but with extremely broad latitude by Gatt Article XVII.

Basic domestic industries in developing countries are frequently state monopoly enterprises, wholly owned or majority owned by the national government. There is a trend toward national ownership of basic industries. Often all trade of LDCs (imports and exports) is handled by state trading firm monopolies.

State enterprises in developed countries are restricted to a few basic industries, such as steel and petroleum refining, and they are usually not the sole producers in the economy. On the other hand, state trading firms in developing countries rarely handle industrial products, although they are frequently found in the agricultural sector.

4.5. Summary

The results of the multilateral trade negotiations are comprehensive in scope. The results include six major codes of conduct, significant concessions in tariffs, increased market access, and new rules in agricultural trade, modernization of the trading system, and a sectoral agreement in aircraft.

These new codes of trade conduct will bring to the practices of other governments greater openness of public procedures, more public access to information about governmental actions, and due process for the resolution of disputes. The United States will directly benefit from these new understandings because they lay the groundwork for more equitable treatment for U.S. exports in foreign markets and

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increase our options for dealing with discriminatory trade practices by other governments.

The substantial progress in many areas toward a freer world trading system will tend to increase the attention focused on the remaining unfinished negotiations and the trade barriers still impairing U.S. export competitiveness.

Many of the nontariff barriers impairing U.S. export competitivensss are maintained by developing countries. Many of these countries participated in the MTN, but have not yet become parties to the codes. As they do, developing markets will become more accessible to U.S. products.

Countertrade arrangements, preferential trade arrangements, the expansion of product and agency coverage under the Government Procurement Code, the unfinished Safeguard Code, and the untimely development of a two-tiered trading system (with tight rules for developed countries and looser rules for LDCs) are the major remaining problems facing U.S. exporters in today's world trading system. The latter problem demands a viable means for "graduating" the advanced LDCs as their development progresses.

5. THE IMPACT OF TECHNOLOGY TRANSFER AND FOREIGN DIRECT INVESTMENT ON THE COMPETITIVENESS OF U.S. PRODUCERS

5.1. Introduction and Summary

In recent years, foreign producers have increasingly made inroads into U.S. firms' markets here and abroad, and lately in markets for high-technology products. Increased competition by foreign firms is often attributed to a loss in U.S. technological superiority. The evidence usually cited to show such a loss includes: a decrease in U.S. research and development spending relative to other nations, a fall in the number of patents filed in the United States by U.S. firms relative to foreigners, and a reduction in the number of innovations produced in the United States.[24] Some observers have suggested that exports of U.S. technology in the past have contributed to foreign competitiveness now threatening U.S. industry. It is argued that continued exports of technology would reduce the competitive position and growth potential of U.S. industries.[25]

24/See National Science Foundation (1978) and Mogee (1980). See the background paper by Aho and Rosen (1980) for a more complete discussion.

25/See Baranson (1978).

The purpose of this section is to examine what is known about the effect of technology inflows and outflows on the trade performance of U.S. industry. The paper concentrates on commercial or business transactions, especially licensing and foreign direct investment. Other impacts of such technology flows are beyond the scope of this section. For example, technology transfer may also affect earnings and employment, income distribution, prices of goods and factors of production, and the structure of industry.[26]

This section reviews indicators of technology inflows and outflows, data on U.S. trade, and research findings of the effects of technology transfer on U.S. international trade. It provides several results. First, indicators of technology transfer show that most technology inflows and outflows occur in the same two aggregate industries, machinery and chemicals, and mostly between affiliates and parents, both U.S. and foreign-based. Thus, the United States and other countries exchange technology in the same industries. But, the data suggest that the United States may be a net exporter of technology since the indicators of outflows far outweigh inflows of technology through foreign direct investment and licensing.

Second, research indicates that technology transfers from the United States make only a small contribution to foreign production capabilities because of the existence of host-country competitive firms and of learning costs which are necessary and tend to reduce net gains.

Third, overseas markets are an important determinant of U.S. firms' domestic R&D spending decisions, and hence, possibly their technological capabilities and export potential. Moreover, overseas R&D activity results in mutual benefits between parents and affiliates, although a larger proportion of benefits goes to affiliates. Foreign firms' R&D activities in the United States may have similar results.

Fourth, the trade data and research provide little evidence on the effects of technology transfer on U.S. exports in machinery and chemicals. There appears to be no consistent relationship between exports and foreign investment. In two high-technology industries, the results are conflicting: exports are complementary to foreign investment for pharmaceuticals, but for semiconductors, foreign production substitutes for exports. The data do not confirm a large negative impact on U.S. trade performance for the two sectors where overseas investments are largest, machinery and chemicals.

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[26]/For a detailed discussion of possible effects on the U.S. economy, see U.S. International Trade Commission, Department of Commerce and Department of Labor (1978).

Fifth, annual foreign direct investment out of the United States is growing and is currently about one-fifth of total domestic investment. These increased outflows strengthen our linkages with the rest of the world economy and leave a greater impact on the balance of payments and the structure of U.S. trade. However, the direction and magintude of the effects is difficult to ascertain.

5.2. Measurement and Conceptual Problems in Assessing Technology Transfer

Determination of the effects of technology transfer on the U.S. trade performance is fraught with difficulties. There are currently no methods to measure technology transfer directly, and hence, to assess the effect of technology transfer on trade. These two proolems are discussed in turn.

5.2.1. Measures of Technology Transfer

A major problem is one of defining and measuring technology and its transfer. Technology may be defined as the knowledge needed to apply scientific and engineering principles to the design and manufacture of products and to the day-to-day operations of production. Unfortunately, this general definition provides few principles on which to develop measures of knowledge and its flows. While we would like to have a measure of the quantity of technology (or knowledge) traded, its price per unit, and the extent to which it is utilized, we have been unable to develop clear, unambiguous measures of technology transfer.

To circumvent this problem a variety of proxy variables or indicators have been used. Indicators of technology flows are trade data (exports and imports), licensing royalties and fees, and foreign direct investment. The major difficulty in using the indicators is one of distinguishing the extent to which reported values reflect technical know-how which accompanied a product sale, a licensing agreement, or foreign direct investment. For example, a U.S. firm may sell a high-technology product or a new product, and include as part of the sale, training to use the new product (e.g., computers). Similarly, recorded values of licensing royalties do not distinguish licenses which permit legal use of a technology (sale of patent only) from a sale of patent plus training and know-how to use the technology. Hence, these data are not wholly adequate, but are used as indicators of technology transfer.[27]

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[27] For a full discussion of how these data are used as indicators and of problems in using them, see the background paper by Okubo (1980).

5.2.2. Assessing the Effects of Technology Transfer

Measurement of technology transfer is only one of many difficulties in assessing the impacts of technology transfer on trade balances. Ideally, an evaluation of these impacts should look at both outflows and inflows of technology and their net benefits. The evaluation should take into account a number of variables, including changes in foreign production capabilities, price and quality of the foreign product, and changes in foreign supply and demand for U.S. exports. Such an evaluation requires very detailed data, many of which are not available. In addition, consideration must be given to the interdependence between technology transfer and changes in production capabilities for both the recipient and donor of the technology. That is, technology transfer may enhance the production capabilities of both.[28]

5.3. Technology Transfer and Effects

5.3.1. Technology Inflows and Outflows

Data on foreign direct investment, licensing, and R&D spending can be used to examine technology flows into and out of the United States. A review of these indicators of technology transfer or transfers of know-how provides several results.[29]

First, U.S. investments abroad far outweigh investments in the United States by foreign firms. The magnitude of U.S. investments overseas is almost four times that which is invested in the United States. (In 1978, the proportion of net book value of inward investment to net book value of outward investment was 24 percent for all industries and 22 percent for manufacturing). Also, investment of U.S. affiliates abroad is growing more rapidly than U.S. domestic investment. (See Figure V-11).

Second, data on licensing and R&D spending indicate that the United States tends to be a net exporter of technology. Net receipts of royalties and fees by U.S. parents are far

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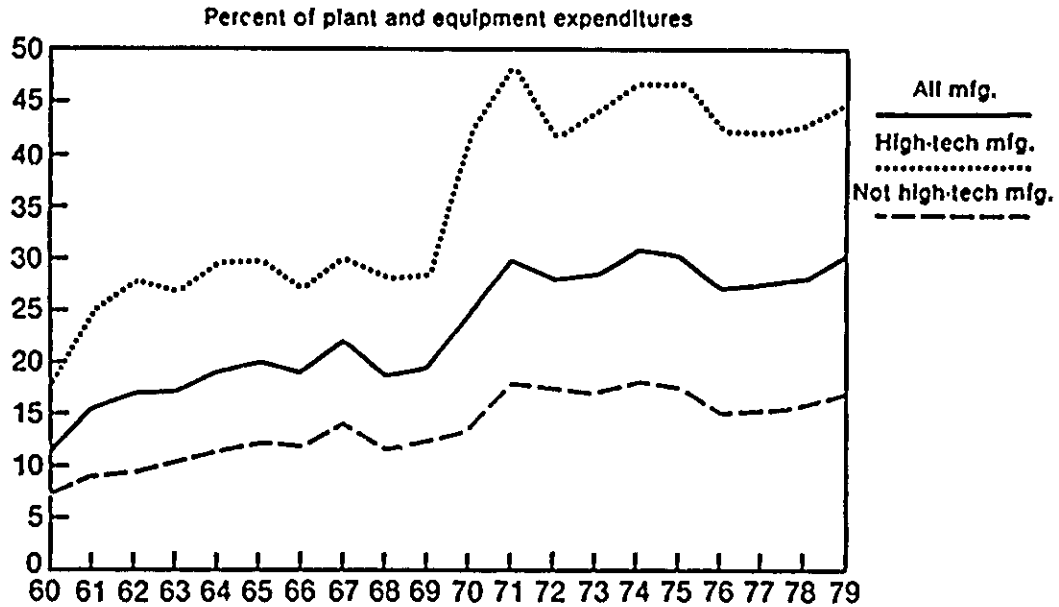
28/See Okubo (1980) for more detail.

29/Ibid. Okubo (1980) provides a detailed discussion is of the patterns and magnitudes of flows and the section in which these flows may be deemed important. The flows are divided into those between American-based parents and their affiliates, American firms and nonaffiliated foreign firms, and foreign-based parents and their affiliates in the United States.

FIGURE V-11

Foreign affiliate as a percent of domestic plant & equipment expenditures



Prepared by ILAB/OFER with Commerce Dept. data.

larger than net payments made by affiliates of foreign firms. Receipts also greatly exceed payments to nonaffiliated firms. A comparison of transactions of U.S. firms with affiliates and nonaffiliates shows that transactions with nonaffiliate firms comprise a small proportion of total. Transactions with nonaffiliates are also growing at a slower rate than transactions with affiliates.

Third, foreign investment into the United States resembles U.S. firms' investment abroad. Most of the investment has occurred in the manufacturing sector, and within manufacturing, in the chemical and machinery industries. These two industries dominate licensing transactions and R&D spending. U.S. firms have invested more heavily in the machinery industry than in the chemical industry, and correspondingly, net licensing receipts are largest for machinery. Also, overseas R&D spending in machinery has been larger than in other manufacturing industries. The chemical industry ranks second in this comparison of U.S. investments abroad.

A similar pattern can be seen for foreign investment into the United States. The largest proportion of investments has been made in chemicals, followed by machinery. The largest fraction of R&D spending in the United States has been made in chemicals (55.2 percent of manufacturing R&D expenditures in 1974), but machinery lags far behind (with 16.6 percent). Net payments of royalties and fees by manufacturing industries are not available to make an appropriate comparison of inflows and outflows of technology, although it has been determined that net licensing outflows occurred in chemicals and allied products, especially pharmaceuticals, industrial and agricultural chemicals, and plastics.30/ Hence, trade in technology occurs in the same (aggregate) industries, machinery and chemicals, for affiliates and nonaffiliates and for American-based and foreign-based firms. However, a more detailed breakdown of manufacturing industries than is currently available is needed in order to determine whether or not the United States exports and imports similar or different types of technologies.

5.3.2. Changes in Capability

Available research provides some insights into the effects of technology transfer on productive capabilities, but no definitive conclusions.31/ The research suggests that

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30/See Meryl L. Kroner (1980). It should be noted that film rentals are excluded from the data.

31/See Okubo (1980) for a more detailed discussion of research findings.

technology transfer by U.S. multinationals makes a small contribution to foreign capabilities, although the rate of new product introduction has been rising. Similarly, technology transfers into the United States by foreign firms provides a small benefit to the United States. There are three major reasons why such transfers make a small contribution to the technological capability of the recipient country in the machinery and chemical industries. First, there are substantial adaptation and learning costs necessary to transfer technology, which reduce the net benefit of the transactions. Second, the types of facilities established suggest little transfer of know-how: assembly plants in developing nations, and in industrial countries, more complex manufacturing facilities using well-established, stable production processes. Third, a major fraction of U.S. investment occurs in industrial nations, where competitive domestic firms already exist.

Research has found that transactions between U.S. firms and foreign-based nonaffiliates probably do not enhance technological capabilities in industrial nations because learning costs must be incurred before foreign firms can take full advantage of the technology and because potential licensors often do not wish to share process technology. However, such a conclusion is not so clear for developing and newly developed nations. It has been found that U.S. firms prefer to license their older technologies, and the experiences of countries, such as Brazil, Mexico, Korea, suggest that others can gain by licensing these technologies. But, we do not know the length of time over which these capabilities are enhanced, whether or not the technology could have been acquired from other countries, or the time period required to develop the technology independently.

5.3.3. Effects on Trade Performance

We can attempt to gain some insights about trade performance, specifically, in the machinery and chemical industries, by reviewing past trade data. The trade data can be used to examine patterns and relative magnitudes of flows in the machinery and chemical industries and to compare trade performance in other manufacturing industries. These data can help determine how well or how poorly the United States trade in these sectors has been doing.[32/]

The chemical and machinery industries are generally considered R&D-intensive along with aircraft and professional equipment and instruments. The former account for about 75

32/Trade performance is discussed more fully in Okubo (1980).

percent of the positive trade balance in R&D-intensive goods (according to the NSF definition of R&D intensive goods) and over 50 percent of all manufactured exports. As a fraction of manufactured imports, however, they have risen fairly rapidly, from 20 percent in 1961 to 30 percent in 1977.

Of the three industries, nonelectrical machinery dominates. It accounts for about 50 percent of the R&D-intensive trade balance and a fairly constant fraction (28 percent) of total manufactured exports between 1961 and 1977. The share of manufactured imports has been rising from 7 percent in 1961 to 12 percent in 1977. For most of the 1961-1977 period, export growth outpaced import growth as shown by the trade balance, with a particularly sharp rise between 1972 and 1975. However, imports of nonelectrical machinery as a share of total manufacturing imports have grown more rapidly than exports of nonelectrical machinery as a share of total manufacturing exports. (See Figure V-12).

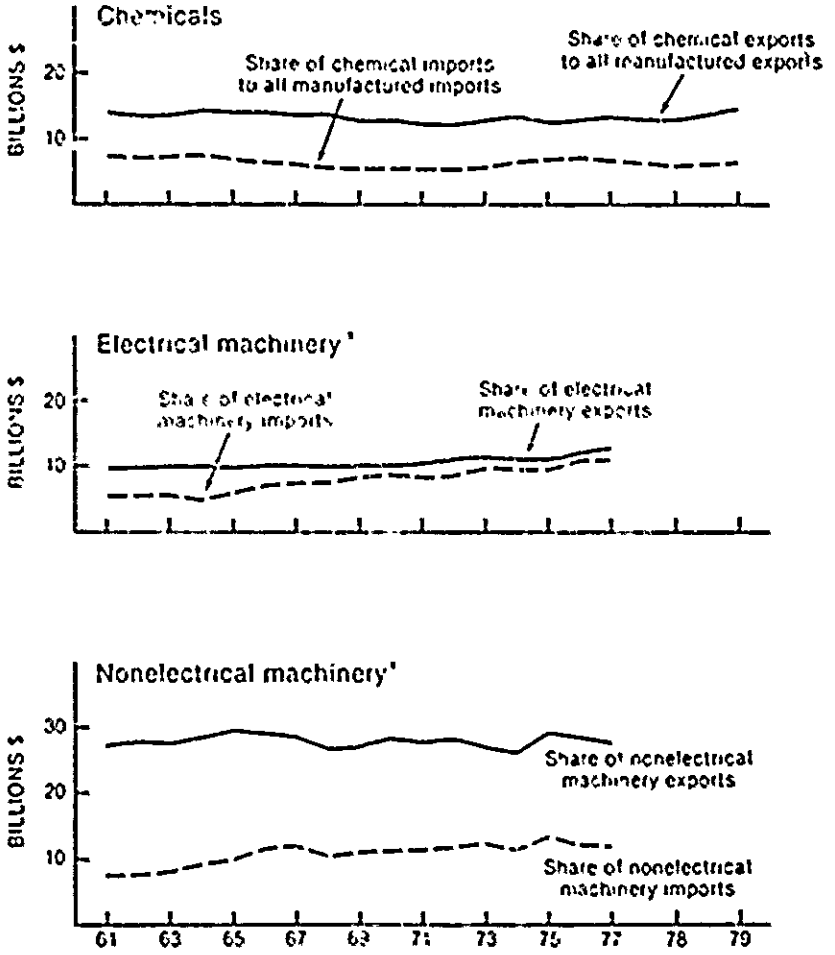
Electrical machinery comprises small fractions of total U.S. manufacturing exports and imports, but these shares have been rising. (See Figure V-12). The trade balance shows an uneven growth in exports relative to imports.

Chemicals account for about 20 percent of R&D-intensive trade, and have maintained a fairly constant percentage, of manufactured trade, with exports at about 13 or 14 percent and imports at about 7 percent of manufactured trade. The chemicals trade balance rose steadily over the 1960-1977 period, with a sharp increase in 1972.

In looking at U.S. trade, the data show that the United States has performed relatively well in the machinery and chemical industries, which are also those industries in which U.S. firms have invested heavily abroad. It has only been recently that the growth of exports, especially of machinery, has not kept pace with the growth of imports. In those industries in which the United States has invested relatively little abroad, the United States has performed poorly in the past two decades. The trade data, thus, do not show a clear negative effect of technology transfer on the aggregate U.S. trade performance, although we do not have enough information as regards what would have occurred in the absence of such transfers to make definitive statements as to their effects.

An examination of export trade shares with major trading partners does not provide such a sanguine picture. U.S. export shares of world trade for chemicals and machinery have been steadily declining over the 1965-1976 period. Foreign competitors from Germany, Belgium, and the Netherlands have been gaining in the chemical industry, while firms from Germany, France, and Japan increased their trade shares in both nonelectrical and electrical machinery. Hence, it appears that in the industries in which the United States has had large

FIGURE V-12
Trade shares of U.S manufactured goods for selected industries



SOURCE *Science Indicators 1978 Overseas Business Reports*

*Data for nonelectrical and electrical machinery not available separately for 1978 and 1979.

export earnings and also concentrates its technology transactions (into and out of the country), other countries have been competing effectively for world market shares. These data, of course, provide no information about the trade effects of technology transfers or changes in technical capabilities in these countries.

There is a small body of empirical research which provides some information about these effects. Most of these studies have not looked at technology transfers specifically, but have examined the impact of foreign direct investment on trade performance. The assumption underlying these studies is that foreign direct investment out of the United States substitutes for direct investment which would have been made by competitive foreign firms.[33] These studies are reviewed in section 5.4 which examines the effects of foreign direct investment on U.S. trade performance. These studies provide no definitive conclusions about the effects of technology transfer abroad on U.S. trade competitiveness.

5.4. Direct Foreign Investment and U.S. Competitiveness

Direct foreign investment can influence U.S. comparative advantage in several different ways. On the production side, direct foreign investment transfers capital abroad and is the major vehicle for international transfers of technology by the private sector. (See Table V-17). As shown in Tables V-17 and V-18, the United States is a net exporter of both technology and capital. The data on fees and royalties indicate that receipts for technology transferred abroad exceed payments made for imported technology ten-fold. The data on foreign direct investment indicate that the stock of foreign investment held by U.S. residents is four-times the investment stocks in the United States held by foreigners.

Data presented in Tables V-19 and V-20 indicate that production capacity of foreign affiliates is growing more rapidily than domestic capacity. This trend is also illustrated in Figure V-11. Hence, the effects of this investment on U.S. trade flows and production are of growing importance. If the United States has a comparative advantage in high-technology goods or in capital-intensive goods, the transfer of U.S. technology and capital abroad may tend to reduce this comparative advantage by reducing the "technology gap" or by reducing the difference in relative capital intensities of production at home and abroad from what they would otherwise have been.

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[33] Other assumptions can be made about the nature of investments made; that is, foreign investment replaces investment in the United States, or increases total world investment. See Aho and Lipsky (1973) and Hufbauer and Adler (1968).

Table V-17

Fees and Royalties-Payments and Receipts in 1978
(in millions of dollars)

Total Receipts	5,429
From Affiliated Foreigners	4,364
From All Others	1,065
Total Payments	610
To Affiliated Foreigners	396
To All Others	214
Western Europe	
Total Receipts	2,286
From Affiliated Foreigners	1,926
From All Others	360
Total Payments	344
To Affiliated Foreigners	190
To All Others	154
Other Europe	
Total Receipts	340
From Affiliated Foreigners	235
From All Others	105
Total Payments	241
To Affiliated Foreigners	121
To All Others	20
Canada	
Total Receipts	759
From Affiliated Foreigners	698
From All Others	61
Total Payments	137
To Affiliated Foreigners	127
To All Others	10

Table V-17 (cont'd)

Latin American Republics and Other Western Hemisphere	
Total Receipts	412
From Affiliated Foreigners	323
From All Others	89
Total Payments	33
To Affiliated Foreigners	19
To All Others	14
Japan	
Total Receipts	744
From Affiliated Foreigners	401
From All Others	343
Total Payments	-51
To Affiliated Foreigners	-66
To All Others	15
Australia, New Zealand and South Africa	
Total Receipts	252
From Affiliated Foreigners	206
From All Others	46
Total Payments	3
To Affiliated Foreigners	2
To All Others	1
Other Countries in Asia and Africa	
Total Receipts	634
From Affiliated Foreigners	573
From All Others	61
Total Payments	5
To Affiliated Foreigners	4
To All Others	1

Source: Survey of Current Business, January 1980

Table V-18

U.S. Direct Investment Abroad (Stocks)
(in billions of dollars)

Area	Total Year-End 1978
Canada	37.3
Europe	69.7
Other Developed Countries	14.0
Latin America	32.5
Other Developing Countries	8.0
International Organizations and Unallocated	6.9
Total	168.1
Foreign Direct Investment in the United States (total)	40.8

Source: Survey of Current Business, August 1979 and International Economic Report of the President, January 1980

Table V-19
Plant and Equipment Expenditures in the United States
(in billions of dollars)

	1966	1979	Percent Growth
Total	60.6	176.4	291
Manufacturing	22.6	78.3	346
Electrical machinery	1.2	5.1	425
Machinery except electrical	2.9	8.2	283
Transportation equipment	2.0	7.8	390
Food Products	1.4	5.1	364
Paper	1.5	4.8	320
Chemicals	3.0	8.4	280
Rubber	.4	1.9	475
Other Manufacturing	10.2	37.1	364
Other	38.0	86.2	227

Source: Survey of Current Business, May 1967 and January 1980

Table V-20

Plant and Equipment Expenditures Abroad by Majority-Owned Foreign Affiliates of U.S. Corporations
(in billions of dollars)

	1966	1979	Percent Growth
Total	8.7	37.4	430
Manufacturing	4.4	18.6	423
Electrical machinery	.2	13.0	650
Machinery except electrical	.9	5.2	578
Transportation equipment	.9	3.7	411
Food products	.3	1.3	433
Paper	.3	1.1	367
Chemicals	.9	3.0	333
Rubber	.2	.3	150
Other Manufacturing	.7	2.7	386
Other	4.3	16.2	377

Source: Survey of Current Business, December 1973 and September 1979

On the demand side, foreign direct investment may stimulate the demand for U.S. goods and services complementary to those produced abroad by U.S. affiliates. The net effects of foreign direct investment on U.S. trade flows has been a subject of considerable debate. The problem in empirically resolving the debate has been the inability to observe what would have occurred in the absence of the direct foreign investment. Assumptions, or some method of estimation, must be relied upon to determine the counterfactual state. Therefore, estimates of the effects of foreign investment have tended to be speculative.

5.4.1. Review of Previous Studies

Most previous studies of the trade effects of foreign direct investment have used assumptions in order to construct the counterfactual state. Such studies include those done by Stobaugh (1972), Hufbauer and Adler (1968), the U.S. Tariff Commission (1972) and Robert Hawkins (1972)[34].

Although more recent research has attempted to determine the counterfactual states through empirical estimation, the results of these studies, too, have been inconclusive. Frank and Freeman (1975) found a negative effect on U.S. exports, whereas Bergsten, Horst and Moran (1978) found almost no effect. Adler and Stevens (1974) were unable to estimate the critical parameters needed in order to determine the counterfactual state and were forced to rely on assumed parameters.

Most of these previous estimates of the effects of direct foreign investment have looked at the combined effects of technology transfer and capital transfers with no attempt to separate them. Section 5.3 of this report summarized the evidence on the effects of technology transfer alone. We shall only note here that since most technology transfers seem to have been accomplished through foreign direct investment, these studies of the trade effects of foreign direct investment presumably capture the bulk of the effects of technology transfer.

One study which attempted to measure the effects of the capital transfer separately was done by Peggy Musgrave (1975). But Musgrave only estimated the effects of capital transfers on income of U.S. labor and income of U.S. owners of capital, not the effects on U.S. trade flows. In order to estimate the effects on trade flows, one must first estimate the effects of the foreign investment on domestic and foreign capital stocks.

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[34]/For a good review of this literature see Aho and Lipsky (1973).

To date, this has not been successfully accomplished. The second step is to determine the effect of this redistribution of capital stocks on trade flows.

5.4.2. Effects on Exchange Rates

One aspect often overlooked in studies of the effects of foreign direct investment and technology transfer on U.S. trade flows is the effects which occur through effects on the exchange rate. When investment funds go abroad, the outflow of investment funds causes the dollar to depreciate in foreign exchange markets. The decline in the dollar then decreases U.S. imports and increases U.S. exports.35/

When income from these investments is returned to the United States, the reverse procedure occurs, and there is a net negative effect on the U.S. trade balance. Recently, net inflows of investment income and fees and royalties have become significant elements in the overall U.S. balance of payments. In 1979, receipts of income from U.S. direct investments abroad, including fees and royalties, were $44.0 billion, whereas such payments to foreign owners of capital were only $6.6 billion. Also, U.S. investors increased their foreign investment by $24.8 billion in 1979 while foreign investors increased their U.S. investment by $7.7 billion. Hence the net result of these transactions was an inflow into the United States of $21.3 billion. Under a system of flexible exchange rates, this net inflow of dollars would tend to cause an offsetting deficit in the other items of the U.S. balance of payments, including the trade balance.

6. Taxation and U.S. Competitiveness

6.1. Introduction and Summary

Taxation may have different effects on the prices of different goods. Thus the competitiveness of individual industries and the pattern of U.S. trade flows could be affected if these price effects are not uniform, although, over a period of years, exchange rate adjustments should eliminate any effects on the overall trade balance. Furthermore, taxes may systematically change relative prices if their incidence rests more heavily on some factors of production than others, and may therefore affect U.S. comparative advantage. For

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35/Theoretically, there should be no effect on short-term capital flows. Such flows are determined by changes in expectations about future exchange rates, not by actual changes in these rates.

example, a higher tax on capital than on other factors of production would raise the relative prices of those goods which were relatively capital intensive. If the United States had a natural comparative advantage in capital-intensive goods, the effects of the tax would be to reduce this comparative advantage. Finally, taxes may influence international investment flows, or flows of income from existing investment stocks, and may therefore affect the overall trade balance under a system of floating exchange rates. This is true because, in the absence of official intervention in the market for foreign exchange, a net inflow (outflow) of private investment or income from private investment must be matched by an equivalent net deficit (surplus) in the balance of trade.

The purpose of this section is to review the most recent analyses of the effects of various U.S. taxes and potential taxes on U.S. investment and trade flows. It discusses the effects of three taxes most often cited as having important effects on U.S. competitiveness in international trade. These are: (1) The U.S. corporate income tax, including the special provisions for Domestic International Sales Corporations (DISCs) and deferral of taxes on non-repatriated foreign source income; (2) the value added tax, including border tax adjustments; and (3) U.S. income taxes on Americans working abroad.

6.2. The Effects of the U.S. Corporate Income Tax on U.S. Competitiveness

The U.S. corporate income tax can affect trade patterns if it increases the cost of capital to U.S. firms. An increase in the cost of capital would increase the price of capital intensive goods relative to other goods. This would tend to shift U.S. production away from capital intensive goods and cause reduced exports and increased imports of capital intensive goods. Similarly, there would be increased exports and reduced imports of goods in which capital costs are a relatively small share of total costs.

The magnitude of these changes and the industries affected are not known with any degree of precision. In part, this is due to the uncertainty in the extent to which the corporate tax is born by suppliers of saving and, therefore, does not increase the cost of capital to firms. There is evidence of a substantial variation among industries in the ratio of corporate taxes paid to the total value of industry output. This reflects differences in capital intensity and profitability, and special tax provisions affecting particular industries. However, there is no conclusive evidence on the extent to which these differences in the ratio of corporate taxes to total costs are translated into differences in relative prices and changes in trade patterns.

6.2.1. The Effects of Deferral on Competitiveness

Deferral encourages foreign as opposed to domestic investment and export as the means for supplying foreign markets. Deferral may also encourage technology transfer since, with direct foreign investment, technology can be transferred internationally and still remain internal to the firm. The effects of deferral on trade flows have not been estimated. However, calculations have been made of the effects of deferral on U.S. domestic investment and on foreign investment flows. Horst (1977) estimates that elimination of deferral, with no offsetting reduction in the corporate tax rate would increase new domestic investment by U.S. based MNCs from $1.4 to $3.6 billion and decrease new direct foreign investment outflows by from $1.5 to $3.8 billion. Rousslang (1979) has calculated that elimination of deferral, accompanied by an offsetting reduction in the general corporate tax rate, would increase the equilibrium stock of domestic capital by from .2 to .4 percent and reduce the equilibrium stock of foreign investment by from 2 to 4 percent. These latter results indicate that deferral is not likely to have very large effects on trade competitiveness through its effects on foreign production capabilities.)

6.2.2. Effects of the DISC on Competitiveness

DISC was adopted in 1971 as a means of encouraging U.S. exports and also investment in the United States as opposed to abroad. A DISC is a corporation which receives a special (reduced) tax rate on income attributed to it. By giving a tax break to exporters, it was hoped that DISC would both increase exports and cause some additional domestic investment at the expense of new foreign investment. This substitution of domestic for foreign investment was supposed to occur because DISC made exporting more profitable relative to foreign direct investment as the means of supplying foreign markets.

6.3. The Potential Effects on Competitiveness of A Value-Added Tax with Border Tax Adjustments

A value-added tax is a multistage tax on consumer goods and services. Many have expressed the view that a value-added tax would improve the U.S. trade balance. The GATT and Subsidies Countervailing Measures Agreement permit destination principle border tax adjustments for indirect taxes such as value-added or sales taxes, but not for direct taxes such as the corporate income tax or the social security tax. In other words, indirect taxes can be imposed on imports and rebated or not

levied on exports, but no explicit adjustments can be made for direct taxes. Although it is doubtful that the U.S. trade balance would improve significantly from imposing a value-added tax, a value-added tax may affect the export competitiveness of some industries.

A general value-added tax of 5 percent will tend to increase prices by 5 percent. Since the tax would be rebated on exports, just like state retail sales and Federal excise taxes, exports would leave the country tax free. While domestic prices would be 5 percent higher, export prices would remain unchanged. Foreign consumers, therefore, would find U.S. products no more attractive than before; there would be no increase in demand for U.S. exports. Similarly, since imports would be subject to the value-added tax, their prices also would increase by 5 percent, the same as for domestic products. Thus, on both the export and import side, there would be no impact on the U.S. trade balance from imposing a value-added tax.

Substituting a value-added tax for some direct tax, would improve the trade balance only if the price level increased by less than the value-added tax. It is important to recognize, however, that other countries might attempt to offset any trade advantage by substituting higher value-added taxes for their direct taxes. Finally, exchange rate adjustments would eventually eliminate any trade advantage.

Most of the European-type value-added taxes are not uniform; preferential rates apply to necessities and higher rates to luxury items. Although it will not affect the overall level of exports, a non-uniform value-added tax can affect export performance on an industry basis. Suppose a relatively high value-added tax is imposed on the output of one industry and a relatively low value-added tax on the output of another industry. The relatively higher value-added tax will discourage domestic consumption of that industry's output. Given the production capacity of the industry, the reduced domestic consumption will be offset by increased net exports. Similarly, the relatively low value-added tax will encourage domestic consumption and will thereby reduce net exports. Thus, a non-uniform value-added tax will increase net exports of goods taxed more heavily than average and reduce net exports of goods taxed more lightly than average.

6.4. Taxation of Americans Working Abroad and the Effects on Competitiveness

This issue is treated in depth in the report submitted under Section 1110(a).

7. ENERGY AND U.S. TRADE COMPETITIVENESS

7.1. Overview

One implication of the traditional theory of international trade is that a country will have a comparative advantage in those goods requiring intensive use of that country's relatively inexpensive factors of production. If energy is relatively inexpensive in the United States, the theory would predict that the United States would specialize in producing and exporting products which are energy-intensive, all other things equal. This section attempts to assess the impact on U.S. competitiveness of increased energy prices induced from the outside as well as from domestic price decontrol. It must be recognized, however, that the effect of higher oil prices is a highly complex problem. Thus, this section should be taken as only suggestive of the full effects.36/

Before 1973, energy prices in the United States and Canada were much lower relative to their major competitors. Table V-21 presents the 1972 prices of different energy sources for the United States and eight other countries, by sector. While the differential in gasoline prices was substantial, the clearcut advantage for the United States came from the enormous price advantage in the industrial sector.

Table V-22 illustrates one result of the energy-price disparities. The United States and Canada, where energy prices were relatively low, both have a substantially higher intensity of energy use per million dollars of gross domestic product than do the other industrialized countries. A study of U.S. production for foreign markets reflects this same intensity of energy use.

7.2. The Energy Intensity of U.S. Trade

Tables V-23 and V-24, respectively, focus upon the most competitive and the least competitive U.S. manufacturing and agricultural exporting sectors, as measured by share of total OECD exports.37/ The industries covered constitute

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36/A more indepth analysis of the impact of oil (and energy prices in general) on U.S. competitiveness is currently being undertaken by the staff of the Department of Labor's Office of Foreign Economic Research.

37/Manufactures are listed on an SITC basis, and agricultural sectors conform to the 154-sector BLS input-output aggregate catrgories for agriculture.

Table V-21[5]
Energy Prices Deflated by Purchasing Power Parities, 1972
(U.S. cents or dollars)

Sectors	U.S.	Canada	France	West Germany	Italy	Netherlands	U.K.	Sweden	Japan
Transport sector[a]									
Regular gasoline (cents per liter)	9.8	7.2	23.1	17.1	30.8	22.7	22.5	19.7	19.7
Household-commercial sector[a] (dollars per million Kcal)									
Electricity	26.6	32.3	59.7	49.9	51.9	35.3	35.0	25.2	66.6
Gas	4.7	3.8	13.8	12.9	8.0	7.1	10.0	neg.	neg.
Coal	neg.	neg.	11.2	10.4	neg.	neg.	10.7	neg.	neg.
Heating oil	3.1	4.0	5.1	3.7	4.3	4.3	5.5	5.2	4.8
Kerosine	neg.	neg.	neg.	neg.	neg.	8.5	neg.	neg.	9.7
Industrial sector[b] (dollars per million Kcal)									
Electricity	11.0	17.7	21.9	28.7	27.2	26.1	24.9	15.0	25.4
Gas	1.7	1.7	3.1	3.3	3.0	2.1	2.3	neg.	neg.
Coal	1.8	1.9	3.9	3.9	4.7	3.4	3.9	3.6	3.6
Petroleum products	2.8	2.2	3.7	2.9	3.5	2.5	4.3	2.7	3.2

Note: Neg. = negligible.

[a]Prices deflated by consumption purchasing-power-parity rates of exchange.
[b]Prices deflated by GDP rates of exchange.

[5]How Industrial Societies Use Energy, by Joel Darmstadter, Joy Dunkerley, and Jack Alterman, Resources for the Future, The Johns Hopkins University Press, Baltimore, 1977, p. 264 (Hereafter referred to as RFF).

Table V-22

1972 Energy Use per Million
Dollars of Gross Domestic Product

Country	Energy Use[a]
Canada	1,772
United States	1,480
Netherlands	1,272
United Kingdom	1,121
Sweden	1,062
West Germany	1,031
Italy	915
Japan	849
France	795

[a]Tons oil equivalent per million dollars GDP.

Source: RFF, p. 26

Table V-23

U.S. Exports: Large OECD Market Shares

Item	1973 Market Share[a]	1977 Market Share[a]	1977 Net Exports ($1,000,000)	1973 Total[b] Energy Index
Manufacturing				
Aircraft	67.7	59.6	5,261	64.6
Office machines	30.9	32.8	2,055	58.6
Photographic supplies	28.1	27.0	521	70.7
Power machinery, non-electrical	27.5	23.0	1,372.	66.5
Agricultural machinery	26.5	24.5	941	63.1
Other electrical machinery	25.8	24.9	1,795	70.6
Machines for special industries	24.6	24.7	2,367	65.9
Scientific, etc., control instruments	21.1	19.9	911	59.7
Organic chemicals	19.9	19.3	1,692	563.9
Fertilizers, manufac.	19.6	20.6	-11	291.7
Non-electrical machinery	19.2	18.7	5,718	57.4
Chemicals, n.e.s.	19.2	19.5	1,170	213.9
Electrical power machinery	18.2	18.1	1,327	64.1
Road motor vehicles	16.0	15.3	-5,733	79.6
Medicinal & pharmaceutical products	14.7	14.4	761	97.1
Export-weighted group averages	22.6	21.1		99.8
Agriculture				
Cotton	67.1	78.4	1,536	115.8
Food & feed grains	63.8	52.1	8,519	146.3
Export-weighted group averages	64.1	66.0		143.2

[a] U.S. exports as a percent of total OECD exports.

[b] Unweighted average of all 95 manufacturing sectors = 100. See text for details.

Source: Prepared by IIAB/OFER.

Table V-24

U.S. Exports: Small OECD Market Shares

Item	1973 Market Share[a]	1977 Market Share[a]	1977 Net Exports ($1,000,000)	1973 Total[b] Energy Index
Manufacturing				
Universals, plates, sheets of iron or steel	4.6	2.1	-2,558	106.0
Furniture	4.3	5.1	-410	75.8
Leather, manufac.	4.3	6.8	-34	101.4
Cutlery	4.2	4.1	-168	57.7
Clothing, exc. fur	4.1	5.1	-3,503	64.1
Wire products, grills	3.9	5.9	-204	91.3
Bars, rods, angles of iron or steel	3.5	1.9	-1,003	86.7
Zinc	3.3	0.8	-371	102.0
Primary iron & steel, ingots	3.1	1.1	-21	181.1
Lime, cement, bldg. mat.	2.8	2.9	-102	176.7
Iron & steel wire	2.7	3.2	-247	91.3
Ships & boats	2.7	1.8	190	59.6
Watches & clocks	2.4	5.2	-538	53.7
Footwear	0.9	1.0	-1,838	70.5
Pottery	0.8	1.1	-400	105.1
Export-weighted group averages	3.4	2.8		87.4
Agriculture				
Meat & livestock	9.4	7.9	-591	70.7
Dairy & poultry products	1.5	2.5	-47	94.8
Export-weighted group averages	8.8	7.0		72.7

[a] U.S. exports as a percent of total OECD exports.

[b] Unweighted average of all 95 manufacturing sectors = 100. See text for details.

Source: Prepared by ILAB/OFER.

approximately two-thirds of manufactured exports, by value, and one-half of agricultural exports.

The column labeled "1973 Total Energy Index" gives the approximate total 1973 energy value embodiment for a given value of industry output relative to an unweighted average of all 95 input-output (I-O) manufacturing sectors. Total energy value refers not only to the energy used directly by an industry, but also to the energy used by other industries supplying the given industry with inputs. For example, for the aircraft industry it includes not only the electricity used in welding airframes, but also the electricity used in making the aluminum purchased by the aircraft industry. Table V-25 below summarizes the broad categories listed in Tables V-23 and V-24, giving U.S. export-weighted average values for each category.

Other input-output studies of the energy intensity of U.S. international trade have concluded that the United States is a net energy importer, even when omitting some direct energy imports such as crude oil, or when omitting energy-intensive raw material imports.38/ However, Table V-25 suggests that with respect to manufactures and agriculture, many of the products in which the United States had a competitive advantage are energy-intensive products.

Table V-25

Energy Intensiveness Relative to U.S. Competitiveness

Category	1973 Market Share	Total Energy Index
2 Most Competitive Agricultural Sectors	64.1	143.2
15 Most Competitive Manufacturing Sectors	22.6	99.8
15 Least Competitive Manufacturing Sectors	3.4	87.4
2 Least Competitive Agricultural Sectors	8.8	72.7

Source: Prepared by I'\B/OFER

These conclusions are not necessarily contradictory. First, one study was based on 1963 and 1967 trade, another on

38/See Fieleke (1975) and Hillman and Bullard (1978).

1970 trade, whereas the present analysis was on 1973 trade data. Secondly, each study covers different bundles of traded goods, with different definitions and factor intensities. Finally, the figures reported here omit the extractive industries, which can be very energy-intensive. Further, one should note that comparative advantage depends upon all factor costs, not just energy. Because the United States is believed to have an abundance of other factors such as capital and skilled labor, it is difficult to separate out the effects of lower energy costs.

7.3. Decontrol of Oil Prices

The decontrol of oil and natural gas prices, already underway, will be a factor affecting U.S. energy use and supplies. For example, when oil price decontrol began in June 1979, the average barrel of imported crude oil cost approximately eight dollars more than a barrel of domestic crude. When decontrol is complete in October 1981, the two should cost the same, equal to the then-prevailing world price of crude.

Oil price controls in effect since the early 1970s may possibly have given a competitive advantage in world markets to energy-intensive U.S. industries. Whether this is indeed the case must await a full study. But, if so, then once decontrol takes hold and U.S. oil and natural gas prices rise toward world price levels, the energy-intensive U.S. industries could be adversely affected.

The substitution of coal for oil and natural gas as sources of energy would be expected to ameliorate, over time, the impact of rising oil and natural gas prices on energy prices in general. However, this very substitution, in the United States and abroad, will mean increasing domestic and foreign demand for coal impinging upon U.S. coal supplies. This can be expected to bring a parallel rise in coal prices.

7.4. Concluding Remarks

The above findings suggest the following consequences of a continued rise in petroleum prices:

- The continued rise in energy prices will cause a rise in transportation costs which will have an adverse effect on international trade.

- The continued rise in energy prices will impact heavily on direct energy imports and imports of energy-intensive ores and raw materials, possible resulting in a worsening U.S. trade balance.

-As energy price decontrol takes effect, the price of U.S. energy will rise in relation to other countries. This could cause prices of some of the more-competitive U.S. exports to rise relative to its less-competitive goods, possibly resulting in increased competition for U.S. industry.

8. LABOR-MANAGEMENT RELATIONS AND INTERNATIONAL COMPETITIVENESS

8.1. Introduction and Summary

The labor-management relations system of a firm refers to the rules governing the functions, responsibilities and behavior of workers and managers. These relations are often formalized in a contract or collective bargaining agreement which is recognized by law in most countries as binding on both labor and management.

A firm's system of labor-management relations can have an influence on its cost structure, output levels and productivity, and hence can affect a firm's ability to compete in world markets in a number of ways. First, labor-management relations determine, to a large extent, the allocation of resources within the firm (or within each firm in an industry). The assignment of workers to tasks, the length of the working day, week and year, the level of employee performance which can be required, the health and job safety standards of the workplace, career mobility, wages, fringe benefits and other critical aspects of the organization of production within firms are largely determined in labor-management agreements. All of these factors have potentially significant impacts on the firm's productive efficiency, although their net effect is difficult to determine.

A second way in which labor-management relations may affect productive efficiency is the role these relations play in the ability of firms and workers to adapt to changes in the technology of production. The introduction of new techniques of production into a plant normally involves a reorganization of employment, accompanied by a new set of occupations, the hiring of new employees and possibly reductions in employment of experienced employees, the reassignment of tasks, etc. The efficiency with which the new technology can be brought on-line will be related to the built-in flexibility and adaptibility of the firm's labor management relations system.

A third way in which labor-management relations can affect productive efficiency is in their role in developing worker morale and discipline, resolving conflicts and grievances between workers and managers, protecting workers from arbitrary

management behavior and enforcing fairness in the workplace. These factors, however intangible, are critically important for the smooth, efficient operation of a firm.

Substantial differences exist among the labor-management relations systems of industrialized countries, reflecting differences in their economic, historical and cultural settings. Differences also exist in the roles which government policies have historically played in directing or encouraging the formation of particular types of labor-management relations systems within and among nations. The next section compares some of the characteristics of the labor-management relations systems of the major industrialized nations which may have some influence on the international competitiveness of their industries.

8.2. Empirical Measures of Labor-Management Relations Systems

Quantification of the characteristics of a country's labor-management relations system and their effects on the international competitiveness of a nation's firms and industries is difficult for a number of reasons. First, comparative data on many of the dimensions of labor management relations systems, such as employee discipline, morale, and confrontational attitudes of management, do not exist. Further, simple cross-national and cross-cultural comparisons of available characteristics pose problems of interpretation in the absence of a relatively detailed knowledge and understanding of the definition and measurement of labor-management relations concepts and an appreciation for the cultural context in which these variables are observed.

A second difficulty arises from the fact that it is unlikely that dramatic changes and fluctuations in the essuntial elements of the industrial relations system of different nations have occurred which, in and of themselves, have caused or have been largely responsible for the observed changes in competitiveness. Rather, it appears more likely that the importance of labor-management relations systems has been their role in the process of adaptation of firms to changes which have occurred in the technology of production. This is an area where detailed, almost industry-by-industry case studies of the interaction of economic trends and industry labor-management relations are required in order to produce meaningful, disaggregated industry measures.

The following set of tables present data on certain aspects of the labor-management relations of the manufacturing sectors of the major industrialized countries. The data do not purport to explain changes in competitiveness but rather to describe certain features of the systems which further research may or may not show to be important factors in international competitiveness.

8.2.1. Workers Covered by Collective Bargaining Agreements

One measure of the extent to which formal labor-management relations systems prevail throughout a country is the percentage of workers in the country who are covered by collective bargaining agreements. Table V-26 presents data from 1955-1975 at 5-year intervals on the percentages of workers belonging to unions in the non-agricultural sectors of thirteen industrialized countries. These data are presumed to proxy the percentage of workers in each country with formalized labor-management relations.

The data show that, over time, the percentage of workers belonging to unions has varied only slightly for any individual country. The relative ranking of countries has changed little since 1955 with the United States (31) and France (22), consistently having the smallest percentages of their non-agricultural work forces unionized. Sweden (83) and Denmark (74), on the other hand, have consistently had the largest percentages of their work forces unionized.

The degree of unionization measure does not capture the effects which labor-management relations have on competitiveness. Rather the measure simply indicates that there is relatively little variation among countries in the extent to which production is carried out under formalized labor-management relations.

8.2.2. Workers Involved in Industrial Disputes

Table V-27 presents an international comparison of industrial disputes and the number and percentage of working days lost as a result from 1970-77. In comparing these data, one must be sensitive to the extent to which labor-management relations problems lead to industrial disputes and work stoppages in different nations. These data do not characterize labor-management relations. They are one measure of a particular aspect of labor-management relations which result in a temporary reduction in output and possible loss of competitiveness. They also reflect differences in culture and environment national consensus.

Table V-27 includes industrial disputes which result in work stoppages. The number of such disputes ranges from a low of 54 in Germany in 1972 to a high 6,074 in the U.S. in 1974. The number of disputes varies widely both across countries and within countries through time. The annual number of disputes has been relatively constant between 1970-77 in the United States, the United Kingdom, and France while fluctuating rather sharply in Japan, Germany and Italy. The sharply rising trend in disputes in Japan seems to have leveled off after 1975.

Table V-26

Union Membership as a Percent of Non-Agricultural Wage and Salary Earners

	1955	1960	1965	1970	1975
United States	34	32	29	28	32
Australia	64	61	59	53	59
Belgium	NA	62	62	66	71
Canada	32	31	28	32	37
Denmark	70	70	68	66	74
France	23	24	23	22	22
Germany	46	41	38	37	41
Italy	NA	55-60	50	50-55	30-50
Japan	38	34	36	35	35
Netherlands	44	44	NA	NA	45
Sweden	70	68	71	79	83
Switzerland	43	41	33	36	NA
United Kingdom	46	45	45	46	54

Source: International Labor Affairs Bureau.

Note: Percentages for Belgium, France and Italy are from the EEC except for 1976 when data for Italy were reported by the Italian Embassy.

Table V-77

International Comparison Of Industrial Disputes and Working Days Lost

YEAR	JAPAN Number of disputes	JAPAN working days lost (1,000 days)	JAPAN working days lost per 1,000 employees	UNITED STATES Number of disputes	UNITED STATES working days lost (1,000 days)	UNITED STATES working days lost per 1,000 employees	UNITED KINGDOM Number of disputes	UNITED KINGDOM working days lost (1,000 days)	UNITED KINGDOM working days lost per 1,000 employees
1970	2,240	3,915	118	5,716	66,414	895	3,906	10,908	479
1971	2,527	6,029	177	5,138	47,589	671	2,228	13,551	616
1972	2,498	5,147	149	5,010	27,066	372	2,497	23,909	914
1973	3,326	4,604	127	5,353	27,948	357	2,873	7,197	324
1974	5,211	9,663	266	6,074	48,045	619	2,922	14,750	662
1975	3,391	8,016	220	5,031	31,237	406	2,282	6,012	265
1976	2,720	3,254	88	5,648	37,859	477	2,016	3,284	146
1977	1,712	1,518	40	5,600	36,000	438	2,627	9,985	443

YEAR	FEDERAL REPUBLIC OF GERMANY Number of disputes	FEDERAL REPUBLIC OF GERMANY working days lost (1,000 days)	FEDERAL REPUBLIC OF GERMANY working days lost per 1,000 employees	FRANCE Number of disputes	FRANCE working days lost (1,000 days)	FRANCE working days lost per 1,000 employees	ITALY Number of disputes	ITALY working days lost (1,000 days)	ITALY working days lost per 1,000 employees
1970	129	93	4	3,319	1,742	107	4,162	20,887	1,606
1971	624	4,484	198	4,358	4,390	271	5,598	14,799	1,125
1972	54	66	3	3,464	3,755	229	4,765	19,497	1,501
1973	732	563	25	3,731	3,915	233	3,769	23,419	1,769
1974	890	1,051	48	3,381	3,380	205	5,174	19,467	1,429
1975	201	69	3	3,888	3,870	236	3,601	27,189	1,996
1976	1,431	534	25	4,348	5,011	303	2,706	25,378	1,844
1977	81	24	1	-	-	-	-	-	-

Source: Conditions of Labor Economy in Japan, Japan Federation of Employees' Association, September 1978. Data were assembled from the labor dispute statistics of the individual countries.

Comparing the number of working days lost per 1,000 employees, a relative measure of the effect of industrial disputes on output, Italy appears to suffer most, having lost 1,844 days per 1,000 workers (2 days per year per worker) in 1976. Germany, on the other hand lost only one day per 1,000 workers in 1977, and appears to have lost only about 300 days per 1,000 workers from 1970-77. Little difference exists in this measure among the United States, United Kingdom and France.

The data show few emerging trends in the absolute number of industrial disputes or the number of working days lost due to industrial disputes. The data suggest that variations in the structural features of these economies and labor markets, such as strike propensity, management attitudes, right-to-strike legislation, industrial structure, etc., determine the extent to which industrial disputes result in work stoppages. The year-to-year fluctuations which are observed within each country appear to have a strongly cyclical rather than secular component, indicating the likely presence of an interaction between economic conditions and industrial disputes.

8.2.3. Hours Worked per Week

The supply of labor to a firm or industry as measured by the number of hours worked per week reflects, in part, an agreement between labor and management regarding the level of effort required by individual workers on the job. International differences in the average number of hours worked per week thus reflect social, cultural and economic forces which have been institutionalized, either explicitly or implicity, in labor-management agreements. To the extent that costs, productivity or other aspects of productive efficiency vary with the average number of hours worked per week, international differences in this variable may affect a firm's competitiveness in world markets.

Table V-28 presents a comparison of the average weekly hours worked in the manufacturing sectors of 7 countries for the period 1968-1978. Little differences are seen in this variable among the United States, Japan, Great Britain and France where approximately 40 hours are worked by each employee each week. Significantly lower average weekly hours are reported for Sweden (31), Italy (30) and Germany (32). Although a declining number of average weekly hours worked is evident in most countries, the notable exception being the United States, little variation through time is seen in the relative rankings of these countries.

8.3. Labor-Management Relations in Japan

The labor-management relations system of firms in Japan has been asserted to be a factor which has contributed enormously

Table V-28

Average Weekly Hours in Manufacturing, Seven Countries

Year	France	Germany	Great Britain	Italy	Sweden	United States	Japan
1968	44.9	N.A.	41.8	36.2	34.9	40.7	N.A.
1969	44.9	N.A.	41.8	34.6	34.3	40.6	N.A.
1970	44.4	36.4	41.4	34.5	34.2	39.8	N.A.
1971	44.1	35.5	40.7	33.2	33.7	39.8	N.A.
1972	43.6	35.1	40.4	32.2	32.8	40.5	N.A.
1973	43.2	35.0	41.2	31.2	32.2	40.7	42.0
1974	42.6	34.1	40.0	30.4	31.8	40.0	40.0
1975	41.6	33.0	39.6	28.7	31.3	39.5	38.7
1976	41.5	34.1	39.7	30.2	30.9	40.1	40.1
1977	41.1	33.5	40.1	30.5	30.5	40.3	40.1
1978	40.8 1/	32.8	40.0	30.4	N.A.	40.4	40.2

1/ Average for 9 months.

Note: For all countries but France, average weekly hours refer to hours worked. For France, average hours refer to scheduled hours--normally scheduled hours adjusted to include overtime offered collectively and to exclude hours lost because of technical reasons or production cutbacks--of full-time employees. Data cover establishments with 10 or more employees. Annual averages were computed by averaging the figures for April, July, and October, and one-half the sum of the figures for January of the current and following year. For Germany, Great Britain, and Italy, non-production workers were assumed to have the same average hours as production workers.

For Germany, data include mining and cover establishments with 20 or more employees. The data cover all establishments in Great Britain, while only large establishments (those with 500 or more employees) are covered in Italy. The data for Sweden are from the national accounts and cover all wage and salary workers.

For Japan, data include establishments with 30 or more employees.

Prepared by: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, September 1979.

to continued and increasing productivity in Japanese manufacturing. The most important characteristic of the Japanese industrial relations system appears to be the "lifetime employment" system or the committment by firms to maintaining and guaranteeing the employment and earnings of their workers for life. Approximately twenty-seven percent of all workers in Japan are covered by the system of lifetime employment, the majority being employed in the relatively large firms. The practice of lifetime employment grew out of the historical and cultural context of Japanese economic development and contains a number of unique features which appear to be particulary conducive to increasing productivity.

Under the lifetime employment system, a company is committed to a worker for his entire working life (usually through age 55). The employee organization or union is an enterprise union to which the worker automatically becomes a member. The worker is guaranteed of job training and promotion within the company and is virtually immune from lay-off. The employment guarantee remains in effect even in situations where employment reductions are expected to be permanent, with large scale intra-and inter-plant and inter-firm transfers put into effect in periods of declining output. The employee is maintained by the company and, if necessary, is retrained for a new occupation entirely at the expense of the firm.

In such a system, the firm receives a great deal of cooperation from its employees which extends to all aspects of labor-management relations, including, most importantly, high worker morale and a positive attitude toward the introduction of new technology. These attitudes are reflected in a number of ways which increase productive efficiency; including, a reduced propensity to strike, a relatively low employee turnover rate, and low absenteeism rates. In particular, the guarantee against job or earnings loss under almost any circumstance appears to result in an extremely flexible, cooperative, stable system of labor-management relations.

To the extent that the system of labor-management relations in Japan has a positive effect on output and productivity, it may provide firms and industries in Japan a competitive advantage in world markets. The relative importance of each of the features of the system is not known but the degree of internal adaptability and flexibility which the lifetime employment system allows, particularly in the efficient adaptation to new technology, has probably been a significant factor in Japanese economic growth.

8.4. Summary

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 contribute to productivity growth and can enhance the adaptability of the economy to changes in the economic environment. The United States should consider encouraging joint efforts on the part of labor and management to improve productivity. A critical element of such efforts is a policy which smooths the process of adjustment to economic change in order that costs of adjustments are not borne entirely by workers.

9. PRODUCT QUALITY, PRODUCT DELIVERY, MANAGERIAL INITIATIVE

A number of nonprice factors enter into the demand function for a particular country's export goods. While some of these factors have been considered to be of some importance, only one, delivery lags, has been put to any economic tests. In an early survey of British companies, the National Economic Development Council (1965) cited the following nonprice variables as important factors affecting export competitiveness: better marketing, improved design and a change in product mix. For those companies exporting more than fifty percent of their output the key nonprice mechanism was delivery lags. To these firms, delivery lags were considered as important as competitive prices.

Today, fifteen years later, one can read the same kind of testimony in Fortune and Business Week. Most of the evidence presented is based on case studies which may be difficult to generalize. Only with respect to waiting time is there a credible history of evidence. The first study to determine the role of delivery lags on export demand was by Steuer, et. al. (1966) who found delivery lags to be highly significant variables. In more recent work, Gregory (1971) found that a fifty percent increase in waiting time was equivalent to an eight percent increase in actual price. In the same vein, Greene (1975) determined that a one month increase in a country's waiting time, when delivery terms in other countries remain unchanged, is equivalent to an increase in the ratio of quoted prices of up to five percent for most commodities.

As far as product quality and managerial initiative are concerned, one is left to the suggestions made by the popular business press which claims that American businessmen are lacking in initiative and their products likewise lack a certain degree of quality. The extent to which these observations are true across industries is an hypothesis that cannot be tested with existing data.

Diffe.ences in product quality are difficult to quantify and depend largely upon the buyers perceptions of differences. Managerial initiative can refer to managerial attempts to find new markets for the firms products, to service those markets or it can refer to the whole complex of managerial decisions which affect the profitability and price competitiveness of the firm. One aspect of those decisions, labor management relations was discussed earlier in this chapter. Factors which impede managerial attempts to capture new export markets (e.g. size of firm) are discussed in the Section 1110(a) review of export promotion and export disincentives.

10. CONSTRUCTION AND CONSULTING ENGINEERING SERVICES AND U.S. TRADE COMPETITIVENESS IN CAPITAL GOODS

Traditionally, the United States has been a highly competitive exporter of capital goods. In 1979, the value of U.S exports of capital goods was $58 billion, exceeding the value of U.S. imports in this same category by $33 billion. Capital goods accounted for one-third of all U.S. merchandise exports in 1979. Furthermore, the bulk of these capital goods exports (80 percent) was machinery of various types, spanning the range from construction and industrial type machinery to scientific and business machinery and equipment.39/

Regionally, the United States regularly records a surplus in its bilateral trade balance for capital goods with all major areas, except Japan. In 1978, the U.S. surplus with developing regions in capital goods ($16.6 billion) nearly equaled two-thirds of the overall U.S. surplus in capital goods. The comparable figure ($12.5 billion) for U.S. trade in capital goods with developed countries other than Japan was one-half the overall U.S. surplus in capital goods.

Many factors bear on the competitiveness of U.S. producers in capital goods markets, including sales price, tariffs and NTBs, terms of financing, quality control, delivery times, training of operatives, and after sale servicing. Another element which may play an important role in the export of capital goods is the activity of U.S. construction and consulting engineering firms in foreign markets.

The activities of construction and consulting engineering firms abroad range from very small-scale undertakings to multimillion dollar industrial and infrastructure projects. The exports of these firms' services are concentrated in

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39/See Section III-2 for more discussion of U.S. trade in capital goods.

developing countries, primarily because of their demand for plant and equipment. In recent years, the Middle East has been a major foreign market for U.S. construction firms.

The export earnings of such firms result partly from the provision of services. In the case of major industrial complexes, the average proportion of total contract value accounted for by expenditures on capital equipment have been estimated to be at least 60 percent.

The importance of contractors and consulting engineers[40/] in the international competition for capital goods stems from their major role in developing contract specification for industrial plant and equipment purchases. In addition to design and engineering, consulting engineers are likely to influence other aspects of plant construction such as the provision of financing, technical know-how, patent rights, construction services (and, hence, the supply of construction equipment), the training of personnel, the commercialization of product, and most importantly, the selection of capital equipment suppliers.

In the packaging of a project for a major industrial complex, consulting engineering firms can be expected to draw heavily on U.S. produced equipment. The consulting engineering services are provided both by independent firms and by those firms which are linked commercially or even fully integrated with equipment supplying domestic firms. To the extent that consulting engineers' recommendations about where to purchase equipment reflect commercial ties with producers in their home market, strong preference may be created in favor of domestic firms. More importantly, the fact that plant designers and contractors are likely to be more familiar with domestic equipment and more experienced in its application and use, could provide an edge for the selection of U.S. capital goods. As a result, consulting engineering firms in the United States, and several other countries active in this market, are believed to provide important support to the trade competitiveness of their home country capital goods sectors, contributing to the export of equipment, whose contract value usually exceeds the contract value of the export of design or construction services.

Statistical data on the contribution of construction and consulting engineering firms to the export of domestic equipment are sparse in all the major exporting countries. What is available may nevertheless be suggestive. An analysis of a sample of contracts for the export of major industrial plants by French consulting engineering firms was recently

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40/The term consulting engineers includes here architects and other design personnel in addition to engineers.

conducted by France's Ministry of Trade.41/ One hundred and fifty billion francs (approximately $32 billion) worth of French contracts for the export of major industrial plant for the period 1974 to 1977 were reviewed by the Ministry.

The French study found that, on average, two-thirds of the value of these contracts were constituted by the purchases of plant and equipment, of which some 85 to 90 percent was of French origin. This implied the export of nearly $19 billion of French equipment. Furthermore, the study found that the winning of 40 percent of these contracts was directly imputable to the foreign involvement of French firms in engineering contracts. These contracts won by engineering firms thus implicitly led to the export of an estimated $7-1/2 billion of plant and equipment. In another French study,42/ it was reported that the exports of plant and equipment had risen from 8 percent of total French exports of capital equipment in 1971 to 44 percent in 1977, contributing greatly to the rapid growth in overall French exports of capital goods. The consulting engineering sector was characterized in the study as the motor behind this expansion of French plant and equipment exports.

Similar data for other major exporting countries outside the United States are not readily available. No study comparable in detail to the French one discussed above was found to exist for U.S. exports of industrial plants and the impact of the foreign activities of the consulting engineering sector.

In the case of the United States, international transactions data for the construction and engineering industries are limited. According to industry estimates recently reported by the Department of Commerce, the 400 largest U.S. construction contractors recently received anywhere from one-fifth to one-third of their business from overseas with the corresponding figure for consulting engineers placed at about one-sixth. Rough estimates based on industry data put the goods component of U.S. contracts at two-thirds of total contract value and the proportion of the goods component

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41/Les Usine Clefs en Main - Realite et Perspective pour la France. Etudes de Politiques Industrielle No. 18. Ministere de l'Industrie, du Commerce et de l'Artisanat, Paris, France. (Translation: Turnkey Plants - Current Situation and Outlook for France, Studies in Industrial Policy, No. 18, Ministry of Industry, Trade and Artisan Affairs.

42/"Ingenierie: Atout Majeur de l'Exportation Francaise," Mensuel de Commerce International, No. 326, December 25, 1978. (Translation: Engineering: "The Trump Card for French Exports").

actually purchased in the United States at 44 percent of the value of contracts.[43] On the basis of these figures, it is possible to estimate that the $18.3 billion in foreign contracts won by U.S. construction firms in 1978 would give rise to $5.4 billion of goods exports from the U.S. in 1978. Comparable data for 1979 (using 1978 ratios of U.S. goods to total contract value) are $22.2 billion in foreign construction contracts and an estimated $6.5 billion is U.S. goods exports. Most of these merchandise exports presumably fall within the capital goods sector and would have represented over 11 percent of the total value of U.S. exports of capital goods in 1979.

The above estimates of the volume of U.S. capital goods exports supported by the construction and consulting engineering sector are based on an analysis of construction contracts only and do not include consulting engineering contracts. These estimates may well understate the total contribution to U.S. exports of plant and equipment. U.S. consulting engineers also work on projects abroad which employ foreign rather than U.S. contractors. Although construction contractors used for such projects may be foreign, U.S. designers and engineers are still likely to specify the use of U.S. equipment. Such equipment sales, depending solely on the activities of U.S. consulting engineering firms, would not be included in the above estimates.

It was the consensus of government, industry and trade association officials consulted that such engineering contracts for projects not employing U.S. contractors do, in fact, result in the export of substantial amounts of U.S. equipment, although at the present time, there is no information available about the magnitude of these additional sales of U.S. equipment. Furthermore, the specification of U.S. plant and equipment for use abroad is likely to lead to later purchases of U.S. equipment for repair and maintenance purposes.

A good deal of controversy has recently centered around the question of the international standing of U.S. construction firms. International competition for foreign contracts has intensified. Some industry data have been collected which purport to show large losses of foreign market shares for U.S. construction firms in recent years. An industry survey published in the International Construction Week Newsletter shows U.S. construction firm's foreign market share falling from 16 percent in 1975 to 5 percent in 1979. As reported by the Engineering News Record, U.S. construction firms had a relatively good year in foreign sales in 1979. The value of

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43/Other industry data reported in Engineering News Record make this U.S. component share of 44 percent appear to be a low-side estimate.

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foreign contract awards reported by the 400 largest firms rose by 24 percent from its 1978 level , a rate of increase twice as fast as that for domestic contract awards. Given the importance of foreign contract awards in recent years, it will be important for U.S. contractors to maintain and regain, where possible, traditional U.S. shares of foreign construction contracts.

For consulting engineering firms, as opposed to contractors, the relative position of the United States appears stronger. A survey by Engineering News Record concluded that the 49 U.S. firms among the 100 largest international design firms accounted for 42 percent of the group's total professional fees.

Internationally, dynamic U.S. construction and consulting engineering sectors, operating on a fair competitive footing with major competitors abroad, add important support to U.S. merchandise trade performance in the capital goods sector. Industry representatives argue, however, that U.S. disincentives (e.g., tax laws) and foreign government practices provide competitive advantages to foreign construction and consulting engineering firms as compared with U.S. firms. U.S. taxation of Americans working abroad is considered to be particularly burdensome and costly in maintaining U.S. employees abroad. These arguments are discussed extensively in the report on Section 1110(a).

VI. Policies to Improve the Competitiveness of U.S. Producers

1. Objectives

In considering possible policy approaches to improve the competitiveness of U.S. products in world markets, there is a basic assumption that the current level of exports is less than desirable because of certain artificial or non-economic obstacles to U.S. trade (e.g., trade barriers, disincentives, lack of information), which impair the ability of U.S. producers to realize greater export levels.

The actual overall volume of U.S. exports could be raised for several reasons: (1) the accelerated rate of U.S. price inflation that originated in the mid-1960s has contributed to a reduction in incentives for long-term investment in equipment and research and development that are required to maintain productivity growth and are, therefore, basic determinants of U.S. competitiveness in world markets; (2) restrictive foreign barriers (many of which were dealt with for the first time in the Tokyo Round) have limited U.S. exports; (3) important disincentives exist to U.S. exports; and (4) there is a lack of adequate information on the part of firms, especially smaller ones, concerning export opportunities. The report submitted under Section 1110(a) covers the policy topics relating to the problems (3) and (4) above. This section discusses the first two areas of concern and their general policy implications.

2. Domestic Policy Considerations

2.1. Paramount Priorities on Domestic Problems and Inflation and Investment

The analysis in this report showed that 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 experienced a relative decline in its trade performance even though the level of U.S. exports has increased substantially in recent years.

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 R&D will enable them to develop newer products and processes with which U.S. firms will have to compete. Although depreciation of the dollar could make U.S. products look more attractive in world markets, this will reduce our 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 should do more to encourage investment and innovation. One factor which retards both investment and innovative activity is inflation.

The Administration has given first priority in its domestic economic policy to reducing inflation. To deal with the fundamental causes of domestic inflation is to deal, at the same time, with those aspects of the present structure and functioning of the domestic economy which have stimulated inflation and have required exchange rate changes to offset the tendency to weaken the competitive position of the United States economy in world markets. Many of the policies designed to achieve modifications in the domestic economy necessary to counter inflation will simultaneously address problems that also have important implications for the international competitiveness of U.S. products (e.g., the increase in domestic energy supplies and the restoration of higher productivity growth). To these ends, among other things, the share of national output devoted to capital formation will have to be increased. With a larger and more efficient capital stock, not only is the international competitiveness of U.S. producers likely to be improved, but so are the Nation's foreign-trade balance and the relative strength of the U.S. dollar in foreign exchange markets.

A strong trade performance contributes to healthy domestic economic performance, and an improved domestic economic performance strengthens the nation's external position. Stronger export performance, (assuming it reflects a shift in export orientation rather than a weakened dollar) tends to strengthen the dollar and raise productivity. With a strengthening dollar, import costs decline and there is downward pressure on the prices of domestically produced import-competing goods. Over time, stronger export performance, and the concommitant growth in imports, would tend to reallocate resources to sectors in which productivity is higher, away from lower-productivity sectors; thus, overall U.S. productivity would rise.

A substantial improvement in the export performance of the United States will normally, by the mechanisms operating through higher national income and, possibly, adjustment in exchange rates, lead to increased imports. This will result in

increased foreign competition for some U.S. industries. However, efforts to protect the domestic industries would tend to weaken the competitive check on price-raising behavior, thereby increasing domestic inflationary pressures; further, market signals for resource reallocation would become distorted and attempts to improve productivity may be hindered.

On the other hand, reduced domestic inflation itself contributes to improved international performance for, at least, three reasons. First, interest rates and other costs of production would be reduced. Second, reduced inflation would induce a shift toward investment in plant and equipment that promotes productivity growth, and away from unproductive and speculative investments. Third, reduced inflation and dampened inflationary expectations facilitate longer-term planning, which in turn encourages greater research and development efforts.

Higher rates of productivity growth in the U.S. would improve our trade performance. Improved productivity itself yields lower inflation for given increases in nominal wage levels, helping to reconcile the objectives of a stable dollar, strengthened export growth and higher domestic income. Moreover, higher productivity in the U.S. tends to be associated with more rapid innovation and the development of new products -- a traditional source of U.S. dynamic comparative advantage. Here, too, increased domestic capital formation, modernizing the capital stock and diffusing innovation, are key factors in restoring productivity growth.

To achieve a reduced rate of inflation, various policy tools must be used, including a limitation on the growth of federal expenditures. The need to control federal spending was incorporated in the President's 1981 budget proposals. He indicated at that time that continued control of Federal spending would make possible tax reductions in the future that are consistent with the maintenance of an appropriate degree of fiscal restraint. Considering the importance and need for additional domestic investment incentives, the President's Annual Economic Report stressed that the design of future tax reductions should give a high priority to measures which strengthen investment.

2.2. Adjustment Problems

It is imperative that our policies be directed toward enhancing the competitiveness and flexibility of U.S. industry so that we can respond to the challenge of foreign competition. Enhancing the competitiveness of 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.

In order to export the nation has to import. If policies were to be adopted to encourage exports, the increased imports arising from such policies may impose additional adjustment problems. Workers in more traditional, import-competing industries are on average less skilled, less educated, lower paid, older, more likely to be female or members of minority groups, and least occupationally mobile.[1]

These characteristics contrast sharply with the characteristics of workers in export-oriented industries who tend to be higher skilled and better educated. This implies that training and adjustment programs may be necessary to facilitate the transfer of displaced workers into the expanding sectors of the economy. Up until now, the United States has relied largely upon private sector forces for adjustment. This contrasts with some foreign countries where training of workers is more institutionalized in society and where more is done to supplement market forces in providing adjustment services.

Idle workers or underemployed workers mean less output and less income for the nation as a whole. The United States needs to do more to retrain and to help these workers to adapt their skills to new occupations. The alternative to a program which assists workers to adjust to international competition is higher unemployment and more resistance to the structural changes in the economy that are necessary if the United States is to maintain and increase its competitiveness in world markets.

3. Trade Policies to Strengthen U.S. Competitiveness

3.1. Full Implementation of Tokyo Round Agreements

The Tokyo Round tariff and, particularly, nontariff barrier (NTB) agreements provide an excellent beginning for attacking government trade intervention and restrictions.

The NTB agreements will assist in enlarging and maintaining foreign market access for U.S. exports. Particularly with respect to technologically advanced products, foreign governments in recent years have used public procurement, standards and subsidy policies to stimulate the development of

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[1] For an analysis of the characteristics of workers in trade sensitive industries, see Aho and Orr (1980).

alternatives to U.S. products. Agreements relating to these practices mark an important step in limiting their trade-distorting effects. Nevertheless, vigilance will be necessary to ensure that the principles agreed to in the NTB codes are strictly adhered to by signatory countries and that the mechanism of the General Agreements on Tariffs and Trade (GATT) is utilized effectively to resolve disputes in cases brought before it.

One of the Administration's goals, in reorganizing the trade activities of the Executive Branch, has been to strengthen this implementation effort. Trade policy coordination has been centralized in the Office of the United States Trade Representative which has also been expanded in size, and a permanent USTR office has been established and staffed in Geneva to handle all United States GATT activities, including Tokyo Round agreement implementation.

In addition to implementation of the Tokyo Round agreements, there are efforts underway to expand the range of those agreements. These include:

(1) increasing the number of developing countries that sign the Tokyo Round agreements;

(2) broadening the coverage of the government procurement code to include more products of major export interest to the United States; and

(3) obtaining a code governing safeguard actions that will establish conditions for government actions that restrain imports.

The first of these is important because the markets of the more advanced of the developing countries with their rapid growth represent the greatest potential for U.S. export expansion; yet they maintain many policies that restrict trade. Multilateral negotiations on product coverage in the government procurement code will begin in 1983. In the interim, the U.S. Government is pursuing bilateral negotiations to further this goal, an example of which is the pressing of Japan to include the Nippon Telephone and Telegraph (NTT) Company in the product coverage of the code. Finally, discussions of the safeguards code are underway; the recent European actions to restrain U.S. exports of chemical fibers reinforce the need for such a code as all other industrial and developing countries recognize its importance to the long-term durability and expansion of the international trading system.

Important consideration also must continue to be given to the trade-distorting effects of foreign investment incentives and export performance requirements. The U.S. Government is giving high priority to the effort to negotiate rules of restraint on government intervention in the investment process and to develop a case for initiating countermeasures under existing international rules. The United States, therefore, has undertaken initiatives bilaterally and in multilateral fora to obtain agreement on rules to restrain governmental intervention in the international investment process. We have also begun to consider the possibility of taking countermeasures under existing GATT rules.

3.2 Further Examination of U.S. Trade Interests and Trade Policy Implications

Extensive and detailed studies of the long-term trends in the competitive position of individual U.S. industries should be undertaken. Such sectoral studies would attempt to identify the sectors which would benefit, in terms of increased exports, from trade agreements to further liberalize trade barriers. Further, these studies should identify the most important foreign barriers to export growth. Special attention should be paid to government barriers to trade in high-technology products. Following a comprehensive review, a new U.S. negotiating initiative could be considered on a bilateral or plurilateral basis to deal with the important post-Tokyo Round foreign trade obstacles. A number of areas that can be expected to benefit from further trade liberalizing initiatives include capital and high-technology items and various agricultural products.

In the future, more attention should be paid to sectoral approaches to negotiating trade barriers. Reciprocal agreements can be difficult to achieve when only one or two sectors are being negotiated; however, an important sectoral agreement was negotiated in the Tokyo Round which confirms that a sectoral approach can be useful and productive. Furthermore, because of the political and organizational difficulties of initiating future large-scale multilateral negotiating efforts such as the Tokyo and Kennedy Rounds, a new round may not be undertaken for another ten years. Thus, efforts to deal with trade barriers on an individual or sectoral basis may be useful.

4. A Fundamental Structural Concern

Even if these policy initiatives can enhance U.S. export performance, there are some influences on the competitive position of the United States which lie outside the immediate realm of federal policy operating alone. One of these areas is labor, management-government relations. Differences among nations in the degree to which these parties cooperate with one another can have an effect on the international competitiveness of their firms and industries.

Close cooperation can contribute to productivity growth and can enhance the adaptability of the economy to changes in the economic environment. 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 the competitiveness in world markets. Joint efforts could also help to smooth the process of adjustment to economic change.

A new initiative in this regard has been begun by the Steel Tripartite Advisory Committee which is concentrating labor, management and government efforts on a domestic program of community adjustment, productivity growth, and industrial modernization. The creation of the Automobile Industry Committee as part of the President's economic program for that industry will address some of the same issues. These programs may provide the experience necessary in order to assess the applicability and adaptability of cooperative approaches for American industry.

Annex

THE COMPETITIVENESS OF U.S. EXPORTS IN WORLD MARKETS: PRIVATE SECTOR VIEWS

The United States Trade Representative issued a notice in the Federal Register on April 29, 1980, requesting private sector representatives to give their views on factors influencing the competitiveness of U.S. exports in world markets. Respondents were also encouraged to express their views on policies and programs that might improve the competitive position of U.S. exports.

In the responses received there were four areas of concern regarding factors bearing on the competitiveness of U.S. industry:

1) The general health of the domestic economy;
2) Limitations on access of U.S. goods to foreign markets;
3) U.S. export disincentives; and,
4) U.S. assistance to exporters, including export credits, trade promotion, and other governmental incentives to export.

The Domestic Economy

Domestic economic conditions were frequently cited as among the most important factors affecting U.S. export competitiveness. Comments by Lawrence Fox of the National Association of Manufacturers exemplified this common viewpoint. Fox contended that the high proportion of national income expended on private consumption in the U.S. economy has led to low savings and investment, to aging plant and equipment, and to reductions in industrial innovation, R&D, and the rate of productivity growth. In contrast, many of the U.S. foreign competitors have maintained relatively high levels of saving which have been invested in modern plant and equipment, embodying advanced technology and permitting rapid increases in productivity.

Such differences in investment and productivity growth levels will tend to make it increasingly difficult for the United States to compete effectively with foreign industry in both the international and domestic markets. These differences, according to Fox, help to account for the large trade deficits experienced by the United States in the 1970s. Private sector representatives, in general, expressed the view that the United States must adopt policies to encourage capital formation and increased productivity if the nation is to reduce inflation and improve its trade balance.

Access to Foreign Markets

A second major concern of private sector respondents were limitations of U.S. firms' access to foreign markets. The types of impediments to foreign markets cited include restrictive foreign government procurement policies, restrictive standards procedures and requirements, and high tariffs. The recently concluded Tokyo Round trade agreements deal with many of these barriers to trade; hence, many of the private-sector responses encouraged the strong enforcement of the new trade codes. Several writers favored additional negotiations to further strengthen the nontariff codes of the Tokyo Round. The National Electrical Manufacturers Association expressed particular interest in expanding the government procurement code to include electrical products.

Several writers also encouraged the United States to pursue bilateral trade agreements with developing countries, in order to promote a positive environment for investment in and trade with these countries.

Export Disincentives

Export disincentives were also cited as a major impediment to U.S. exports. Those mentioned most frequently were policies and regulations in the areas of antiboycott, foreign corrupt practices, antitrust, export licensing, environmental review, and human rights. Many of those submitting responses expressed concern about what they felt to be the general subordination of export interests to other policy objectives, and expressed the view that such export disincentives often fail to achieve the desired domestic, foreign, or national security policy objectives. The writers noted that goods or services whose export from the United States is restricted can, in most cases, be supplied by foreign competitors; hence, the objectives for which exports are sometimes limited are often not achieved. In addition, many of respondents were concerned that the United States is becoming regarded as an unreliable supplier in international markets because of excessive use of export controls. Such a reputation could result in the United States losing many foreign contracts. The respondents contended that involved administrative procedures, export licensing delays, and even occasional license revocations encourage foreign buyers to make their purchases in countries where export controls pose less of a problem to transactions. The respondents also contended that such costly and time-consuming obstacles discourage U.S. small business from entering the export market.

Incentives to Export

There was also general agreement among the writers that U.S. exporters are at a competitive disadvantage relative to foreign competitors in regard to export financing and tax incentives to promote exports. Many letters encourage the United States to authorize more funds for the Export-Import Bank, and to expand the Bank's authority for short-term financing, small loans and political risk insurance to match the export programs available to foreign competitors. Many replies also encouraged the United States to eliminate some of the loan restrictions which have been instituted by the Eximbank to achieve foreign policy, national security, or other policy objectives. These restrictions include labor-impact statements, environmental impact statements, cargo preference requirements, lack of flexibility in loan rates and terms, and limitations on trade with certain countries.

As for taxes, many writers stated that U.S. tax regulations should be modified to promote exports or, at least, to avoid impairing the ability of U.S. firms to export. According to several writers the tax laws of Japan and many European countries provide extensive incentives to export, while the U.S. incentives are limited. The export tax incentives provided through the Domestic International Sales Corporation (DISC) were characterized by many writers as being less than fully effective. The Emergency Committee for American Trade has contended that "reductions in the (DISC) program, complex procedures and, in particular, the persistent threat of its revision have hindered its use..."

Many letters also commented on U.S. practices for taxing the earned income of U.S. employees working abroad. Many felt that the U.S. practice puts U.S. firms at a competitive disadvantage since most countries do not tax foreign earned income. Because the tax is ultimately borne by the firm, it becomes relatively difficult for firms to maintain American representatives abroad, thus adversely affecting U.S. exports.

Other tax practices which were frequently criticized are the Internal Revenue Code section 861 rules. It was argued that these rules have the effect of imposing a tax penalty for U.S.-based R&D activity, and thereby encourage U.S. firms to conduct their R&D activities abroad. Many respondents recommended that the 861 rules be changed so as not to discourage domestic R&D activity.

Finally, many letters encouraged the Congress and the Administration to clarify U.S. antitrust laws in regard to international business activities. They contended that the uncertainty of application of extraterritorial antitrust laws inhibits U.S. businessmen from entering international consortia to bid on large foreign projects. Many replies also criticized

the Webb-Pomerene Act, which provides some antitrust exemptions for domestic firms combined in an association for the export of goods. The statutory vagueness of the Act, according to several writers, leads to its under-utilization, and, in addition, the Act does not apply to the export of services. Finally, many letters recommended the passage of legislation to provide for the establishment of trading companies, in order to provide small and medium sized firms the opportunity to gain effective access to foreign markets.

APPENDIX TABLE A-1

SITC	DESCRIPTION
512	ORGANIC CHEMICALS
513	INORGANIC CHEMICALS, ELEMENTS, OXIDES AND HALOGEN SALTS
514	OTHER INORGANIC CHEMICALS
515	RADIOACTIVE AND ASSOCIATED MATERIALS
521	MINERAL TAR AND CRUDE CHEMICALS FROM COAL, PETROLEUM AND NATURAL GAS
531	SYNTHETIC ORGANIC DYESTUFFS, NATURAL INDIGO AND COLOUR LAKES
532	DYEING AND TANNING EXTRACTS, AND SYNTHETIC TANNING MATERIALS
533	PIGMENTS, PAINTS, VARNISHES AND RELATED MATERIALS
541	MEDICINAL AND PHARMACEUTICAL PRODUCTS
551	ESSENTIAL OILS, PERFUME AND FLAVOUR MATERIALS
552	PERFUMERY AND COSMETICS, DENTRIFICES AND OTHER TOILET PREPARATIONS (EXCLUDING SOAPS)
554	SOAPS, CLEANSING AND POLISHING PREPARATIONS
561	FERTILIZERS, MANUFACTURED
571	EXPLOSIVES AND PYROTECHNIC PRODUCTS
581	PLASTIC MATERIALS, REGENERATED CELLULOSE AND ARTIFICIAL RESINS
599	CHEMICAL MATERIALS AND PRODUCTS, N.E.S.
611	LEATHER
612	MANUFACTURES OF LEATHER OR OF ARTIFICIAL OR RECONSTITUTED LEATHER, N.E.S.
613	FUR SKINS, TANNED OR DRESSED (INCLUDING DYED)
621	MATERIALS OF RUBBER
629	ARTICLES OF RUBBER, N.E.S.
631	VENEERS, PLYWOOD BOARDS, "IMPROVED" OR RECONSTITUTED WOOD AND OTHER WOOD, WORKED, N.E.S.
632	WOOD MANUFACTURES, N.E.S.
633	CORK MANUFACTURES
641	PAPER AND PAPERBOARD
642	ARTICLES MADE OF PAPER PULP, OF PAPER OR OF PAPERBOARD
651	TEXTILE YARN AND THREAD
652	COTTON FABRICS, WOVEN (NOT INCLUDING NARROW OR SPECIAL FABRICS)
653	TEXTILE FABRICS, WOVEN (NOT INCLUDING NARROW OR SPECIAL FABRICS), OTHER THAN COTTON FABRICS
654	TULLE, LACE, EMBROIDERY, RIBBONS, TRIMMINGS AND OTHER SMALL WARES
655	SPECIAL TEXTILE FABRICS AND RELATED PRODUCTS
656	MADE UP ARTICLES, WHOLLY OR CHIEFLY OF TEXTILE MATERIALS, N.E.S.
657	FLOOR COVERINGS, TAPESTRIES, ETC
661	LIME, CEMENT AND FABRICATED BUILDING MATERIALS, EXCEPT GLASS AND CLAY MATERIALS
662	CLAY CONSTRUCTION MATERIALS AND REFRACTORY CONSTRUCTION MATERIALS
663	MINERAL MANUFACTURES, N.E.S.
664	GLASS
665	GLASSWARE
666	POTTERY
667	PEARLS AND PRECIOUS AND SEMI-PRECIOUS STONES, UNWORKED OR WORKED
671	PIG IRON, SPIEGELEISEN, SPONGE IRON, IRON AND STEEL POWDERS AND SHOT AND FERRO-ALLOYS
672	INGOTS AND OTHER PRIMARY FORMS (INCLUDING BLANKS FOR TUBES AND PIPES) OF IRON OR STEEL
673	IRON AND STEEL BARS, RODS, ANGLES, SHAPES AND SECTIONS (INCLUDING SHEET PILING)
674	UNIVERSALS, PLATES AND SHEETS OF IRON OR STEEL
675	HOOP AND STRIP OF IRON OR STEEL
676	RAILS AND RAILWAY TRACK CONSTRUCTION MATERIAL OF IRON OR STEEL
677	IRON AND STEEL WIRE (EXCLUDING WIRE ROD)
678	TUBES, PIPES AND FITTINGS OF IRON OR STEEL
679	IRON AND STEEL CASTINGS AND FORGINGS, WORKED, N.E.S.
681	SILVER, PLATINUM AND OTHER METALS OF THE PLATINUM GROUP
682	COPPER

SITC	DESCRIPTION
683	NICKEL
684	ALUMINIUM
685	LEAD
686	ZINC
687	TIN
688	URANIUM AND THORIUM AND THEIR ALLOYS
689	MISCELLANEOUS NON FERROUS BASE METALS EMPLOYED IN METALLURGY
691	FINISHED STRUCTURAL PARTS AND STRUCTURES, N.E.S
692	METAL CONTAINERS FOR STORAGE AND TRANSPORT
693	WIRE PRODUCTS (EXCLUDING ELECTRIC) AND FENCING GRILLS
694	NAILS, SCREWS, NUTS, BOLTS, RIVETS AND SIMILAR ARTICLES OF IRON, STEEL OR OF COPPER
695	TOOLS FOR USE IN THE HAND OR IN MACHINES
696	CUTLERY
697	HOUSEHOLD EQUIPMENT OF BASE METALS
698	MANUFACTURES OF METAL, N.E.S
711	POWER GENERATING MACHINERY, OTHER THAN ELECTRIC
712	AGRICULTURAL MACHINERY AND IMPLEMENTS
714	OFFICE MACHINES
715	METALWORKING MACHINERY
717	TEXTILE AND LEATHER MACHINERY
718	MACHINES FOR SPECIAL INDUSTRIES
719	MACHINERY AND APPLIANCES (OTHER THAN ELECTRICAL) AND MACHINE PARTS N.E.S
722	ELECTRIC POWER MACHINERY AND SWITCHGEAR
723	EQUIPMENT FOR DISTRIBUTING ELECTRICITY
724	TELECOMMUNICATIONS APPARATUS
725	DOMESTIC ELECTRICAL EQUIPMENT
726	ELECTRIC APPARATUS FOR MEDICAL PURPOSES AND RADIOLOGICAL APPARATUS
729	OTHER ELECTRICAL MACHINERY AND APPARATUS
731	RAILWAY VEHICLES
732	ROAD MOTOR VEHICLES
733	ROAD VEHICLES OTHER THAN MOTOR VEHICLES
734	AIRCRAFT
735	SHIPS AND BOATS
812	SANITARY, PLUMBING, HEATING AND LIGHTING FIXTURES AND FITTINGS CENTRAL HEATING APPARATUS AND PARTS THEREOF
821	FURNITURE
831	TRAVEL GOODS, HANDBAGS AND SIMILAR ARTICLES
841	CLOTHING (EXCEPT FUR CLOTHING)
842	FUR CLOTHING (NOT INCLUDING HEADGEAR) AND OTHER ARTICLES OF FURSKINS; ARTIFICIAL FUR AND ARTICLES THEREOF
851	FOOTWEAR
861	SCIENTIFIC, MEDICAL, OPTICAL, MEASURING AND CONTROLLING INSTRUMENTS AND APPARATUS
862	PHOTOGRAPHIC AND CINEMATOGRAPHIC SUPPLIES
863	DEVELOPED CINEMATOGRAPHIC FILM
864	WATCHES AND CLOCKS
891	MUSICAL INSTRUMENTS, SOUND RECORDERS AND REPRODUCERS AND PARTS AND ACCESSORIES THEREOF
892	PRINTED MATTER
893	ARTICLES OF ARTIFICIAL PLASTIC MATERIALS, N.E.S
894	PERAMBULATORS, TOYS, GAMES AND SPORTING GOODS
895	OFFICE AND STATIONERY SUPPLIES, N.E.S.
896	WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES
897	JEWELLERY AND GOLDSMITHS' AND SILVERSMITHS' WARES
899	MANUFACTURED ARTICLES, N.E.S.

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