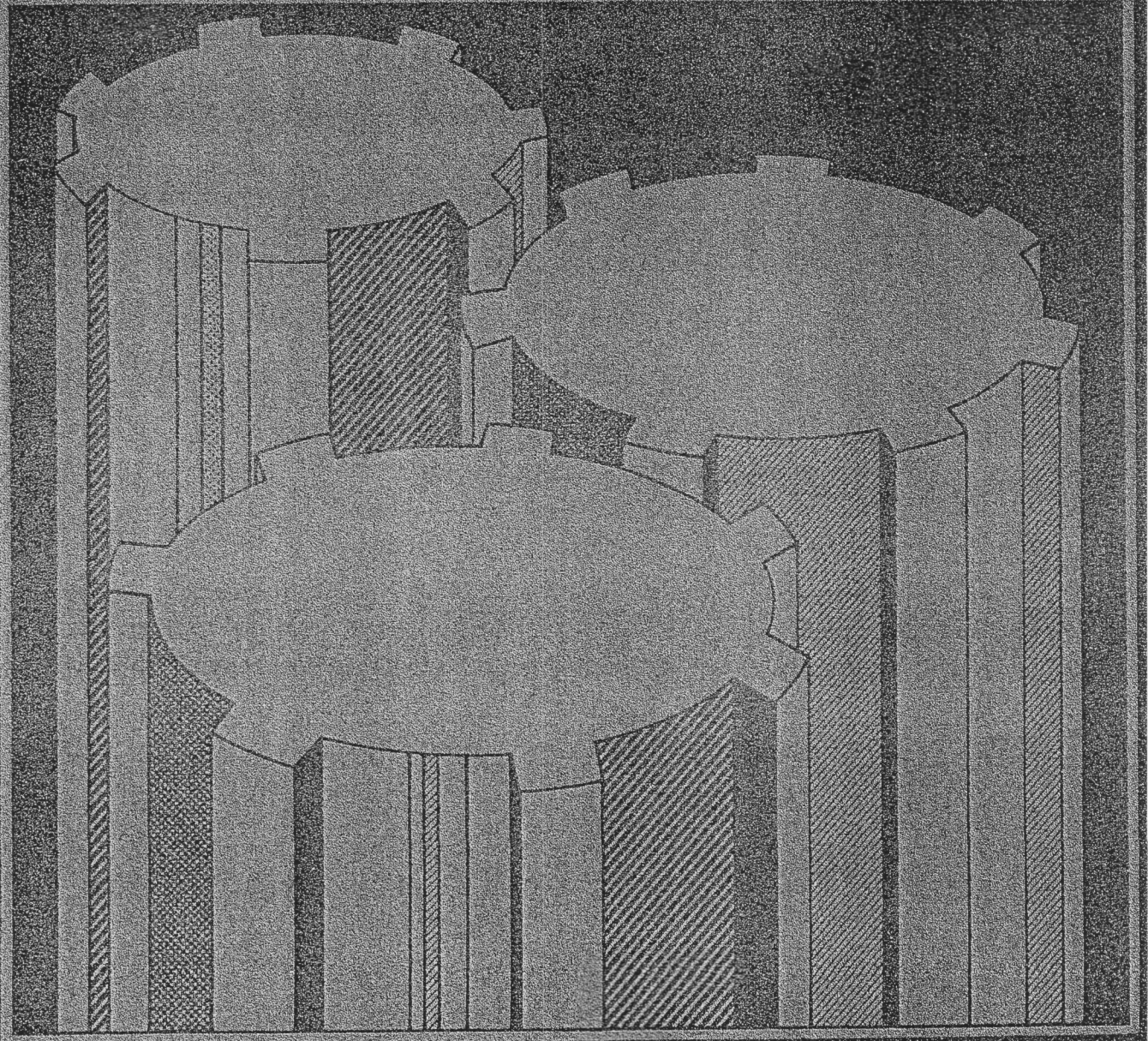




The GATT Negotiations and U.S. Trade Policy



CBO STUDY

**THE GATT NEGOTIATIONS
AND U.S. TRADE POLICY**

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PREFACE

In September 1986, the member nations of the General Agreement on Tariffs and Trade (GATT) inaugurated a new round of negotiations aimed at further opening the world trading system. The Congress must provide U.S. representatives at these negotiations with negotiating authority and policy direction, and will be asked to ratify the final results when talks end, several years from now. These negotiations come at a time when trade imbalances have become a source of tension in the world economy and when governments are playing a growing and important role in determining the flow of commerce. This report, requested by the Subcommittee on International Trade of the Senate Finance Committee, provides an overview of this round of trade talks and examines how they might affect four sectors of the U.S. economy--high-technology goods, agriculture, mature industries, and services. In keeping with the mandate of the Congressional Budget Office to provide objective analysis, no recommendations are made.

This report was prepared in CBO's Natural Resources and Commerce Division, under the direction of Everett M. Ehrlich and Elliot Schwartz. Stephen Parker made valuable contributions to the content and structure of the report throughout its development. The overview and historical material was written by Stephen Parker and Elliot Schwartz. Chapters on specific sectors were written by Daniel P. Kaplan, Stephen Parker, Elliot Schwartz, and Philip C. Webre. Roger Hitchner, David Trechter, and James G. Vertrees contributed to the chapter on agriculture; Gwyn Adams and Jerrold Abrahams to the chapter on services. Kristen Galles, Peter Glick, Julie Goldman, and Pam Pritchard provided research assistance. Valuable comments were received from Victoria Farrell, Neil Fisher, George Iden, Andrew Horowitz, James Kiefer, and Eileen Manfredi of CBO, and from Robert Baldwin, Thomas Dorsey, Harry Freeman, Robert Hudec, Gary Saxonhouse, Nancy Schwartz, and Lee Tuthill. Helpful suggestions were also made by the Office of the U.S. Special Trade Representative. The report was edited by Francis Pierce, assisted by Nancy H. Brooks, and prepared for publication by Kathryn Quattrone, assisted by Pat Joy.

Edward M. Gramlich
Acting Director

June 1987





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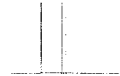
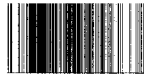


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SUMMARY AND CONCLUSIONS

The General Agreement on Tariffs and Trade (GATT) is both a multilateral agreement and an organization that administers the agreement among the 93 signatories. Seven rounds of GATT-sponsored multilateral trade negotiations have progressively lowered postwar tariff barriers, and an eighth round--the "Uruguay Round"--is now taking place.

The Uruguay Round is occurring at a critical juncture in international trade relations. The GATT rules and procedures that have successfully guided four decades of trade liberalization show signs of breaking down. Unless confidence in GATT is renewed, present difficulties could lead to a costly global trade war.

IMPORTANCE OF THE URUGUAY ROUND

Governments are increasingly resorting to policies that are not regulated by GATT, and that conflict with its principles of open and nondiscriminating trade. Such government actions are often felt to be essential to maintaining the competitiveness of national industries. As tensions rise, this tendency may escalate into retaliatory measures and countermeasures. The importance of the Uruguay Round lies not so much in how any one of the items on its agenda is resolved as in the recognition by governments of the need to modernize the GATT framework so as to reflect the increasing importance of international markets, and to accept the resulting changes in their own policies.

Many hope that new GATT agreements will work to reduce the huge U.S. trade deficit. Such a hope is probably misplaced. Most of the aggregate trade deficit can be attributed to divergent macroeconomic policies among the major industrialized countries. In particular, high U.S. government budget deficits have been a major cause of the recent surge in the U.S. trade deficit.

The Uruguay Round requires attention from the Congress for several reasons. Most immediately, the Congress must provide new authority for these negotiations, along with policy direction. In addition, it must consider



the possible effects of the Uruguay Round on federal programs that are sensitive to international trade--most obviously in agriculture. Through their effects on such programs, new trade agreements could ultimately have an impact on the federal budget.

Trade negotiations take time. This round of talks--preliminary negotiations have already begun--is not scheduled to end until 1991, although some interim agreements may be reached before then. After Congressional approval, more time will be required to phase in the new policies. Whatever the outcome of the trade talks, then, most of the direct effects on U.S. policy and economic activity will not occur until well into the 1990s.

The Uruguay Round could nevertheless have an immediate impact on the way governments deal with their trade problems. If the talks were to deadlock, governments might resort to actions outside the realm of GATT to serve their national interests. On the other hand, indications that the talks were moving toward a successful resolution of key problems would lessen pressure for immediate and possibly harmful government actions. In this sense, the talks will succeed in the short run if they foster an atmosphere of cooperation that reduces current tensions among countries.

The main focus of these negotiations, however, will be on the long term. The benefits of open trade are well known: trade expands the range of goods available for consumption and increases productivity by allowing producers to specialize according to their resources and technology. But opening up trade creates problems, such as how to address the unequal distribution of benefits and losses among different groups in a country, and how to react when another country attempts to promote some of its own industries at the expense of its trading partners.

One way of analyzing the Uruguay Round is to examine its possible consequences for particular sectors of the U.S. economy. This report looks at four broad sectors--high-technology goods, agriculture, mature industrial products, and services--to see how they might be affected by trade liberalization.

THE URUGUAY ROUND IN PERSPECTIVE

The Uruguay Round will be judged largely on how well it addresses issues related to nontariff barriers. Examples of nontariff barriers (NTBs) range from direct quantitative controls on imports to the less visible effects of national economic policies on trade flows. GATT has been unable to regu-

late the use of NTBs for a number of reasons: they are inherently less "transparent" in their effects than tariffs, which makes them difficult to evaluate; and they are often linked directly to national policies that are based on domestic rather than international priorities.

The General Agreement on Tariffs and Trade

The GATT was created following the Second World War as one of three international organizations intended to oversee postwar economic relations, the other two being the International Monetary Fund and the World Bank. GATT's members today account for over 80 percent of world trade.

Four key principles underlie the General Agreement:

- o Member countries should work for the steady reduction of trade barriers and the elimination of quotas.
- o Trade policies among member countries should be applied on a nondiscriminatory (most-favored-nation) basis.
- o A tariff concession, once made, cannot be rescinded without compensation to affected countries, and other forms of protection cannot be substituted to circumvent the concession.
- o Trade conflicts should be settled by consultation.

These principles are not inviolate; exceptions to them have always been tolerated. In fact, many of GATT's current problems stem from both old and new evasions of these principles. Examples of current exceptions include:

- o The Multifiber Agreement governing trade in textiles and apparel;
- o Voluntary export restraints, such as the recent U.S. limits on automobile imports from Japan;
- o Escape-clause actions, such as the recent protection given the motorcycle industry;
- o Agricultural import quotas and agricultural subsidies;
- o Barriers to trade in services, and the failure to protect intellectual property rights;



- o Free trade areas, such as the European Community;
- o Preferential treatment for developing countries;
- o Nontariff barriers to trade; and
- o Retaliatory trade actions.

This list of exceptions to GATT's general principles will comprise much of the agenda for the Uruguay round of multilateral trade negotiations. In essence, the agenda aims to strengthen GATT discipline and expand it to cover all trade in goods and services. If successful, most nontariff policies would come within its purview, which would extend to all major trading countries of the world. The primary concern, however, is not so much strengthening the role of GATT as resolving fundamental disagreements among countries over the role of government in economic activities.

IMPLICATIONS OF THE URUGUAY ROUND FOR U.S. GOVERNMENT PROGRAMS

A distinguishing feature of the Uruguay Round is its emphasis on liberalizing trade barriers--especially NTBs--that are integrally linked to national economic policies. Foreign trade can no longer be dealt with apart from other domestic economic policy concerns. Governments often employ trade policies less for commercial ends than to achieve other goals--economic, political, and social. Significant trade liberalization thus means changing these national programs, and for this reason domestic policies will increasingly be the focus of trade negotiations.

The following is an illustrative, but not comprehensive, list of U.S. government policies that are effectively on the Uruguay Round bargaining table:

- o Farm programs (including export subsidies, import quotas, and domestic price and income support programs);
- o Federal support for research and development;
- o Tax policies that favor domestic producers;
- o National security regulations;

- o Trade Adjustment Assistance and the Job Training Partnership Act;
- o Various trade policy procedures (notably, escape-clause actions);
- o Antitrust regulations;
- o Import quotas (or voluntary export restraints) for various manufacturing goods;
- o All import tariffs;
- o Government procurement practices that favor domestic goods;
- o Federal and state regulations governing banks and other financial institutions;
- o Immigration laws;
- o Transportation regulations (including airlines and shipping);
- o Patent and copyright law, and other intellectual property rights laws;
- o Technical standards and health and safety rules;
- o Bilateral economic agreements;
- o Rights of establishment for foreign firms;
- o U.S. economic policies toward developing countries; and
- o U.S. acquiescence to GATT enforcement powers.

The length of this list illustrates the deep ramifications of foreign trade in the U.S. economy. Similarly lengthy lists could be made for most other countries. Although the Uruguay Round is not likely to require substantial changes in all of these programs, those included in the list will increasingly become the focus of future trade policy negotiations. The United States and other countries have already started reforming several of these policies on a unilateral basis in response to internal economic and political pressures.

The following discussion shows the bearing of the trade negotiations on domestic policies in four sectors. ^{1/}

High-Technology Products

Trade in high-technology products is already covered by the GATT, but numerous disputes have arisen because many governments subsidize production of these goods in an attempt to gain a competitive advantage. An underlying issue is the extent to which governments can, and should, enhance the competitiveness of domestic producers; and how the spillover effects of such policies can be controlled.

Discussions of intellectual property rights will bear directly on high-technology goods. If an agreement can be reached that tightens the penalties against unauthorized use of patents, copyrights, and trademarks, U.S. firms holding those rights--most generally in high-technology industries--should gain.

Trade liberalization should in general benefit most U.S. producers of high-technology products--in aerospace, computers, electronics, pharmaceuticals, and scientific instruments.

Agriculture

Most barriers to trade in agricultural products have been erected to accommodate domestic farm policy programs. In this country, for example, such restraints often serve to protect domestic farm price supports. Many other developed countries use import barriers and export subsidies in much the same way: to stabilize and nurture the domestic farm sector, not to achieve export or import goals. Such trade barriers cannot be significantly reformed without changing the domestic farm policies they serve. The negotiations will focus on the agricultural policies of developed countries, most importantly those in the United States, the European Community, Japan, Canada, and Australia. Although major policy reforms are likely to benefit the economies of all countries, some farmers may be made worse off by reductions in farm support programs, especially over a transition period. Efforts to compensate farmers for losses may be necessary. For each

1. No attempt is made here to summarize fully the sectoral analyses contained in Chapters III-VI. A short precis appears at the beginning of each of those sectoral chapters.

country, however, the adjustment costs may be lessened if all countries concurrently open their agricultural markets, which should expand world trade and bolster prices, and if agreements are phased in over a long period of time.

Mature Industries

These industries, such as steel, textiles, apparel, and--increasingly--automobiles, have declined in the advanced industrial countries, even as they have grown in some developing countries. They are technically covered by the GATT, but many countries have sought to develop special protective arrangements for them through formal and informal agreements. Abolishing such practices would force governments to confront the consequences of economic change, such as unemployment, and to revise policies that often impede, rather than promote, adjustment. GATT negotiations over subsidies, escape-clause procedures, and the GATT dispute settlement process will be of particular importance for mature industries. Negotiations in these sectors often take on a North-South polarization, since developing countries are rapidly becoming major suppliers of such goods to developed countries.

Agreements that liberalize trade and reduce trade barriers will have a direct impact on those mature industries that are now accorded special protection. The negative effects would be lessened if the liberalization was truly multilateral. The U.S. automobile industry, for example, might benefit from a reduction of European barriers to Japanese autos, since those barriers have diverted Japanese auto exports from Europe to the United States.

Services

An agreement on services trade would bring a new set of national policies under international scrutiny. All countries regulate service activities to some degree--with the added complication that much of this occurs at the state or provincial level. Many of the regulations embody long-standing social values, such as consumer and producer rights, that are generally considered well within the bounds of national sovereignty. But the spillover effects can be stifling to international trade. The United States, in particular, has untapped export growth potential in many kinds of services, particularly those employing large amounts of high-skilled labor (such as construction, telecommunications, financial services, and skilled professional business services). On the other hand, the United States stands to lose from greater imports of lower-skilled, labor-intensive services (in construction, shipping, and personal services).

KEY ISSUES UNDERLYING THE NEGOTIATIONS

The Uruguay Round agenda covers most of the current issues in international trade. But underlying these issues are a number of more subtle questions. How can trade policy be made more transparent? When does a national economic policy become an internationally unacceptable nontariff barrier to foreign trade? To what extent are governments willing to relinquish their sovereignty and shift their national priorities to accommodate international agreements? Should discriminating trade practices of any kind be allowed? If nontariff barriers are to be liberalized, how can this best be done? Would bilateral or multilateral agreements be preferable? When does a developing country graduate to become a full-fledged member of the international trading community?

Need for Policy Transparency

It is difficult to measure the relative benefits and costs of trade reform unless the effects of national policies can be compared for different countries and industrial sectors. This can be done easily for ad valorem tariffs, which apply a tariff rate in percentage terms to the value of a traded good. For nontariff barriers, however, there is no such "transparent" measure of protection. To negotiate the liberalization of nontariff barriers, ad valorem equivalents of their protective impact must be measured in a way that can be consistently compared between countries, types of policies, and economic sectors. Producer subsidy equivalents, which are being employed for this purpose in the agricultural sector, are one such measure. Another way to achieve transparency is to convert nontariff barriers to equivalent ad valorem tariffs. Not only are ad valorem tariffs more transparent than nontariff barriers such as import quotas, but they also have a less distorting effect on economic decision making.

Introducing transparency requirements should favor U.S. interests by providing U.S. negotiators and firms with a much clearer picture of how foreign governments influence trade flows. Trade policy procedures in the United States are relatively open compared with those in other countries. The United States does employ several nontariff barriers to trade, and converting these to tariff equivalents would show the extent to which import quotas often represent high levels of protection. It would lessen the negative impacts of protection on the economy, and if the tariff-equivalent amounts could be collected by the government (either directly or by auctioning quota rights to the highest bidders), the Treasury would gain the quota rents that otherwise accrue to foreign exporters.

Rules, Enforcement, and Trade Liberalization: the Role of GATT

Considerable effort will be exerted during the Uruguay Round to devise rules to control better the use of various nontariff barriers to trade. New rules, however, require general acceptance of underlying principles. Disagreement among GATT members as to what those fundamental principles should be is a major stumbling block to improving GATT rules.

GATT's previous success in reducing tariffs was accomplished by developing a set of rules that discouraged increases in tariff rates, and then gradually reducing existing tariffs--on a most-favored-nation basis--through reciprocal bargaining during multilateral negotiations. The rules reinforced, but did not lead, the liberalization process.

A first step in liberalizing nontariff barriers will be to develop rules that clearly identify NTBs and demarcate those NTBs that are improper. Then the rules must be implemented. The Tokyo Round codes of conduct--a set of rules applying to several NTBs--relied primarily upon the good-faith compliance of signatories of the code. GATT enforcement procedures for the codes were cumbersome and ineffective. Although these codes may have restrained some governmental actions, there is little evidence that they have led to significant changes. The experience with tariffs suggests that reciprocal bargaining, involving coordinated concessions among trading partners at either the policy or the industry level, may be a more effective medium for liberalizing NTBs.

GATT dispute procedures play an important role in the trade liberalization process by encouraging countries to resolve their conflicts in an orderly manner without confrontations. Streamlining and enhancing the GATT dispute settlement process will be a major priority for the Uruguay Round. Establishing a nonpartisan standing panel of experts and applying stringent procedural deadlines can prove beneficial. But efforts to strengthen GATT's power to enforce its rules will encounter the reluctance of most governments to yield sovereignty over control of their national policies. It is unlikely that GATT will ever be the primary enforcer of its rules. Rather, in liberalizing NTBs, it will most likely rely on the adherence to mutually accepted standards of behavior by governments; its role will be to facilitate dispute settlements and other negotiations.

The Uruguay Round and Developing Countries

More vigorous participation by developing countries in the trade talks will require concessions by the United States and other developed countries in



several ways. For example, developing countries want long-term guarantees of access to developed-country markets for their exports. Better access would involve loosening such barriers as the Multi-Fiber Agreement, along with promises by developed countries to refrain from erecting similar barriers in the future. This would force the developed countries to cede some of their existing markets to developing countries, and to adjust their domestic economies accordingly--involving difficult economic and political decisions.

Developing countries now have almost one-quarter of total world exports, and about one-eighth of world manufactured goods exports. Economic growth in developed countries is increasingly linked with the economic future of the developing countries. Yet most trade policy actions by developing countries are not regulated by GATT. Just as developing countries argue that it is not fair for developed countries to erect trade barriers that penalize them for their industrial success, so the developed countries complain of the self-serving trade policies employed by many of the most successful developing countries. Clearly, the advanced developing countries must be more fully integrated into the GATT system. The question is not so much whether this will happen as when and how it will be accomplished. Underlying the negotiations on many of the key issues in the Uruguay Round will be compromises over this graduation process.

Product and Country Trade Policy Discrimination

Countries increasingly resort to bilateral agreements, involving quotas and other nontariff arrangements, to solve trade disputes. Such agreements introduce two forms of trade policy discrimination: the application of policies unevenly across countries, and their application unevenly across industries. Although most forms of trade policy discrimination are discouraged by GATT, exceptions have always existed, and some observers question whether the principle of nondiscrimination will remain the basis for future trade agreements.

Most-Favored-Nation Treatment. Unconditional most-favored-nation (MFN) treatment--the application of a trade policy equally across all countries--is a cornerstone of GATT. Trade policies that discriminate by country not only complicate international trade relations and negotiations, but also may divert trade from low-cost producers to higher-cost producers. Such policies invariably induce countries not covered by an agreement to alter their behavior, often offsetting the original intent of the agreements and leading to further discord.

Violation of the MFN principle usually occurs for three reasons: a small group of countries may be able to work out an agreement more easily than a broader group (as in free trade agreements); a country aims specifically to penalize another country for what are perceived to be unfair trade practices (by retaliating against dumping, or applying countervailing duties in response to export subsidies); and a country places restrictions on imports causing injury to specific domestic interests. In certain of these situations, discriminatory practices may prove beneficial: free trade areas can create trade among the members; retaliation can force trading partners to halt unfair trading practices; and the selective application of trade remedies for the relief of threatened industries can limit the negative effects of suppressing competition. The danger, though, is that discriminatory practices may become the norm rather than the exception.

Specific Product Agreements. GATT does not explicitly require that protection be applied evenly across industries within an economy. But its general thrust is to limit the use of quantitative trade barriers--which are commonly used to provide higher levels of protection to some industries than to others--and to encourage reductions in trade barriers across all industries. Uneven protection that favors some industries relative to others can limit economic growth if low-productivity sectors are favored over higher-productivity sectors.

The case for special treatment of specific products is made on several grounds, namely: that temporary restraints provide an effective way of handling temporary market disruptions (as in autos); that specific exemptions are necessary to save the general rule of free trade, since without the ability to make exceptions the whole structure would fall; that different products have different characteristics, requiring somewhat different trading rules (as in textiles and various services); and, in the extreme, that some products (as in the steel, agriculture, and high-technology industries) are so vital to national interests that administrative solutions are preferable to market results.

Alternatively, it can be argued that most restraints to trade are detrimental to world economic growth, and often to the countries enforcing the restraints. It can also be argued that the proliferation of sectoral protection and managed-market agreements breeds more protection, as it becomes difficult to justify protection for some sectors and not for all.

The Uruguay Round will specifically address the most serious case of sectoral discrimination--that in the agricultural sector. It will also take up other specific sectoral actions, including barriers to trade in services, the

Multifiber Agreement and other voluntary export restraints in various industries, and the "safeguard" procedures that are used to implement many of these policies. The United States has been an active user of discriminatory trade policies, and the results of these trade talks may limit the flexibility of U.S. trade policy in the future.

IS GATT WORTH SAVING?

The strongest defense of GATT is based more on what it has prevented rather than on its explicit accomplishments. Since the creation of GATT, world economic growth has not been fettered by nationalistic policies. Instead, it has been stimulated by expanding international trade.

GATT was created primarily to reduce the possibility of another debilitating trade war similar to that which followed the Smoot-Hawley Tariffs at the beginning of the depression. It was also intended to undo much of the damage caused by those actions. By this test, GATT can be judged quite successful. Although trade relations have suffered numerous crises over the last 40 years, these have not set back world economic growth. And GATT-sponsored multilateral negotiations have helped to reduce the Smoot-Hawley-era tariffs by over 90 percent: the average tariff rate for most developed countries is now less than 5 percent.

The value of GATT lies not only in its rules, but in the fact that it also provides a forum where countries can resolve disputes over national policies. GATT is one of the few policy forums where long-run goals guide the resolution of short-term crises. No comparable framework exists for settling other key international problems--such as how to coordinate macroeconomic policies or to lighten the burden of debt.

GATT needs to be modernized, however, and this means rethinking the principles that should guide trade policy for the rest of the century. GATT has little independent power; it merely reflects the will of its members. To revitalize it, the members will need to reexamine many long-standing domestic policies and reassess their national priorities, given increasingly important economic linkages among countries. The problem is not the inadequacy of GATT, but rather how governments are going to mesh their policies with the requirements of the world economy. Opening up the potential of international trade represents one of the great challenges facing governments today.

CHAPTER I

INTRODUCTION

Over 90 countries joined together to launch the Uruguay Round of multi-lateral trade negotiations during a meeting of trade ministers in Punta del Este, Uruguay, last September. The Uruguay Round is the eighth sponsored by the General Agreement on Tariffs and Trade (GATT). It continues the process of adapting the GATT framework of trade agreements to ever-changing international economic conditions. Formal negotiations to determine the procedural format for the talks have already begun, and a four-year deadline has been set to complete the talks.

The United States has led the drive for new multilateral trade negotiations. Other governments have joined in--some enthusiastically, some reluctantly. Although the United States has been the prime motivator for trade liberalization since World War II, the intensity of its push for a new round reflects concerns about the economic and political ramifications of recent record trade deficits. Even though the U.S. trade deficits are primarily a response to macroeconomic policies, certain U.S. industries have suffered heavily from foreign competition.^{1/} The result has been political pressure to redress the balance by establishing quotas or tariffs on certain imports as well as by taking aggressive actions to reduce foreign barriers to U.S. exports. Other countries have responded by pointing to the protective trade policies of the United States. Some that are reluctant to enter a new round of trade negotiations have done so rather than face the prospect of a retaliatory trade war with this country.

Negotiators in the Uruguay Round will focus on extending the GATT framework in two dimensions: to goods and services that are now not included, and--perhaps more crucially--to nontariff barriers to trade (that is, the broad range of nontariff national policies that have sizable impact on international trade). Priority will be given to the following agenda: liberal-

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1. For a clear analysis of the relationship between trade policy and the aggregate trade deficit see Rachel McCulloch and J. David Richardson, "U.S. Trade and the Dollar: Evaluating Current Policy Options," in *Current U.S. Trade Policy: Analysis, Agenda, and Administration*, Robert E. Baldwin and J. David Richardson, eds., National Bureau of Economic Research Conference Report (1985).

izing both tariff and nontariff barriers to trade in agricultural products, in tropical and natural resource products, in textiles and apparel, in steel, and in services; strengthening GATT rules and enforcement procedures, especially those related to subsidies; establishing GATT rules to protect intellectual property rights; and standardizing safeguard (escape clause) procedures across countries. Since many of these issues deal specifically with policies employed by developing countries, expanding the GATT framework in this way will force a reassessment of the role of developing countries' policies in the world trading system. And given the importance of international trade as a stimulus to economic growth, the results of these talks will help shape U.S. and worldwide economic prospects throughout the rest of this century.^{2/} They may also affect the federal government's economic and budget policies for many years to come.

WHAT IS AT STAKE?

The Uruguay Round comes at a time when governments are increasingly intervening in world trade to try to manage world markets for key products: in some cases allotting national market shares and inhibiting competition; and in other cases aggressively pursuing policies to enhance the competitiveness of particular industries. Many recent government actions--especially in the form of export subsidies, voluntary export restraints and other nontariff barriers to imports, and bilateral agreements--contradict the GATT principles that have successfully supervised international commerce since World War II. As government intervention increases worldwide, additional protective measures become more easily justifiable, especially for defensive purposes. Such a spiral of trade restraints could jeopardize world economic growth and the welfare of nations.

Benefits of Free Trade

Economists have long extolled the benefits of free trade. Free trade is a positive-sum activity--those who trade do so because of mutual benefit.

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2. A number of books and articles have been written recently that deal with the Uruguay Round of trade talks. Three that have been useful for the preparation of this report and which are not specifically quoted in the text are: Michael Aho and Jonathan Aronson, *Trade Talks; America Better Listen!* (New York: Council on Foreign Relations, 1985); Gary Hufbauer and Jeffrey Schott, *Trading for Growth: The Next Round of Trade Negotiations* (Washington, D.C.: Institute for International Economics, 1985); and William Cline, ed., *Trade Policy in the 1980s* (Washington, D.C.: Institute for International Economics, 1983).

Free trade expands the range of products available for consumption; broadens the markets for a country's producers; and increases a country's productivity by encouraging greater specialization.

International trade can be a stimulus to economic growth in both developed and developing countries. While larger countries can sometimes grow for a time by exploiting their own internal economic diversity and market size, as a rule a country cannot maintain high domestic economic growth rates for long without increasing its foreign trade. The importance of trade can be seen in the fact that the total volume of international trade increased by 1.6 percent for every 1 percent increase in world economic growth over the high-growth period 1950 to 1973. As worldwide economic growth began to stagnate in the period 1973 to 1984, this ratio fell to 1.1 percent.^{3/}

Foreign trade has played an increasing part in the U.S. economy over the last 20 years. The ratio of imports or exports to total output (GNP) has almost doubled over the last two decades. Sectors such as agriculture, electronics, aircraft, certain types of machinery, and chemicals rely heavily on foreign markets for sales, while many domestic producers and consumers gain from the purchase of imports.

Difficulties with Free Trade

The strong argument for free trade summarized above ignores the fact that free trade raises serious problems for governments. First, although free trade improves the overall standard of living in a country, the benefits are not distributed equally. The benefits are received by the most competitive productive groups, who are often already relatively well off, while the costs are borne by the least competitive groups. While gains to consumers more than outweigh losses to producers, their gains are normally spread thinly among many buyers. Moreover, if the shift of resources toward the more competitive sectors leads to unemployment during the adjustment process (and individual firms and workers lose some capital or skills specific to their former employment), then the private loss for some groups in the economy may be considerable. Unemployment introduces some social loss to the economy as a whole. Rather than attempting to compensate the losers by drawing upon the benefits of trade, governments often try to protect these weaker segments of the economy from foreign competitors at a net cost to the economy as a whole. Such protection generally forces consumers to pay

3. Annual Report of the General Agreement on Tariffs and Trade, 1984/85, p. 18.

higher prices, and retards structural changes in the economy that can lead to higher productivity over time.^{4/} There may be much less costly and more equitable ways to achieve these distributional goals than using trade policies.

Another problem arises when one country uses trade policies to gain advantage at the expense of its trading partners.^{5/} Beggar-thy-neighbor policies can succeed if other countries do not retaliate. Retaliatory trade wars reduce the overall standard of living of all countries involved. A better course is to try to modify the unfair trading policies of other countries through negotiation rather than by retaliatory measures.

Government's Role in "Competitiveness". A new development in trade policy is the recognition that governments can fabricate comparative advantage. The traditional economic model explained trade flows between countries as the result of differences in resource endowments. But an increasing proportion of world trade now consists of the exchange of similar products between countries with comparable resource endowments and production technology. Success in this "intra-industry" trade relies more on such factors as economies of scale, business acumen, research and development, and product innovation than on differences in wages and capital stock. Maintaining market share becomes essential for the long-run viability of this type of trade. Since the margin of competitiveness is so narrow, traditional government policies such as education, scientific and research grants, and credit allocation can tip international competitiveness in favor of one country's producers against another's. The use of active government policy as a fundamental determinant of dynamic comparative advantage muddles the concept of "fair" trade policies. Just how far governments may or should go to support their nations' industries is an important question underlying many of the topics that will be discussed during these negotiations.

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4. Instead of protecting industries from foreign competition, government can try to assist them in adjusting to changes in demand. Theoretically, adjustment programs lower many of the costs related to changes in trade flows, but such efforts in practice have met with mixed success. The economics of the adjustment process are obscure. For example, the many factors that influence a family's decision to change jobs or move to another region have not been adequately modeled. In fact, there is a shortage of information on even the magnitude of the problem. The most thorough examination of labor displacement is: U.S. Congress, Office of Technology Assessment, *Technology and Structural Unemployment: Reemploying Displaced Adults*, OTA-ITE-250 (February 1986).
 5. Under certain conditions, optimal tariffs and other trade policies can be used to increase the welfare of one country relative to its trading partners, but the loss in welfare to its trading partners exceeds the gain to the country.

THE NEGOTIATING ENVIRONMENT

Multilateral negotiations allow countries to develop a common framework for approaching trade problems and afford the opportunity for reciprocal bargains that can make all parties better off. But negotiations often take several years, and outcomes are generally phased in over time. Multilateral talks rarely solve immediate trade conflicts.^{6/} Instead, negotiations develop an enduring set of guidelines that moderate trade policy responses to various economic and political pressures, while gradually reducing restrictive trade policies already in place. GATT rules operate in a fashion similar to domestic laws that regulate social relationships. During periods of well being, GATT maintains a low profile and its negotiations encourage steady, but rarely dramatic, trade policy reform. During periods of economic stress, as is the case now, the GATT framework works to restrain governments from employing policies that they may later regret.

Previous rounds have induced developed countries to reduce dramatically tariffs on most manufactured goods imports: the average tariff rate on dutiable imports into developed countries is now around 5 percent, compared with much higher average tariff rates (almost 60 percent for the United States) when tariff liberalization talks first began in the early 1930s. The negotiations, especially the most recent Tokyo Round, have also begun the process of controlling the spread of nontariff barriers.

But a large proportion of international trade is still encumbered by various governmental policies. Many kinds of nontariff barriers have been erected that are not effectively controlled by GATT rules. These barriers are especially high in agriculture and in services. Even where GATT discipline is well established (for example, GATT rules designed to discourage dumping of manufactured products such as semiconductors), member governments have been increasingly unable to resolve their differences.

The broad task facing participants in the Uruguay Round, therefore, is to modernize the GATT framework of rules and procedures to cope better with the new realities of international trade, and to use these rules to achieve more liberal policies. This involves strengthening GATT authority where it already exists, and establishing GATT rules and enforcement pro-

6. A major effort of the Uruguay Round, as discussed more fully in Chapter II, will be to enhance GATT's institutional ability to handle day-to-day trade disputes.

cedures for trade in nonmanufactured goods, for trade with developing countries, and for many nontariff trade barriers, none of which are now covered adequately by GATT. Better rules, though, must be implemented to be effective. Although previous rounds produced rules to govern the use of several nontariff barriers, compliance with them relied mainly on the good faith of members. GATT enforcement procedures are passive and weak. There is little evidence that these procedures have significantly liberalized trade. One specific task, therefore, will be to strengthen GATT's powers to enforce compliance. If experience with tariff reduction is a reliable guide, however, governments will be most likely to reduce trade barriers when a tangible concession by one country can be roughly offset by a reciprocal concession from a trading partner.

Negotiating Procedures

Deliberations leading to the Punta del Este Declaration and the initial talks in Geneva have been dominated by jockeying to establish favorable positions for the start of the substantive negotiations. Partly as a compromise to achieve the broadest possible agenda, the Punta del Este agreement assigned most of the major items on the agenda to separate working groups.^{7/} Although the mandate for many of these groups stresses rule-making and enforcement procedures, concessional bargaining to liberalize existing policies may occur in a number of cases. Negotiations in most groups, at least initially, are to be self-contained, thus limiting demands for reciprocal concessions across groups. This arrangement, by impeding cross-issue reciprocity, means that there will be less incentive to compromise, and thus less likelihood of major concessions on some key issues (see box). Activities in each group will be coordinated by a Trade Negotiations Committee consisting of representatives from various participating governments. How reciprocity is to be measured for a final agreement involving the many issues on the agenda has yet to be determined.

7. All decisions in GATT must be approved by consensus. As more countries with diverse interests participate in GATT activities, consensus forces administration by compromise. To obtain the approval of several key developing countries to the Punta del Este Declaration, developed countries agreed to separate negotiations on services and manufactures trade. The developing countries demanded this in order to weaken any reciprocity link between increased access by developing countries to manufactured product markets in developed countries and reductions in trade barriers for service trade by developing countries.

RECIPROCITY IN GATT NEGOTIATIONS

A hallmark of GATT negotiations is that each country enters voluntarily with the prospect that nothing must be yielded unless matched by reciprocal actions from its trading partners. Generally, each major negotiating team tries to achieve a roughly equivalent level of multilateral reciprocity in any final agreement, ensuring that each country can claim success when the deal is brought home. Designing a scoring method that tallies reciprocity across thousands of tariff classifications and numerous nontariff issues while remaining agreeable to the many negotiating parties is not a simple matter. Different measures of reciprocity may favor different countries. GATT does not specify how reciprocity is to be measured. Rather, the terms of reciprocity are an integral part of each negotiation process.

During the early rounds, when tariff reductions dominated the agenda, multilateral reciprocity was measured by the value of trade covered by tariff concessions, which were made on a most-favored-nation basis. In recent rounds, the average depth of tariff cut also was employed to measure reciprocity. The ultimate, but far too complex, criterion of equalizing gains in national welfare was at best indirectly relevant. By the Tokyo Round, data became available that allowed some countries to use economic models to estimate the effect of tariff concessions on trade flows, domestic output and employment, and economic welfare. More sophisticated reciprocity criteria, especially some allowing the summation of national benefits and costs over numerous nontariff agreements, may be used by many countries during the Uruguay Round.

Multilateral reciprocity was not used during the Tokyo Round negotiations concerning codes of conduct for nontariff barriers. Instead, reciprocity was defined independently for each code. Code reciprocity allowed a country to choose whether to sign a code without prejudicing its bargaining power in other parts of the negotiation. Limiting cross-issue reciprocity in this way made it easier for like-minded groups to enter into agreements. But it introduced two problems. Since the agreement required that signatories apply the discipline of the code only to trade with other signatories, it could potentially breach the principle of nondiscriminatory treatment, which has been a cornerstone of GATT. Also, parties often have unbalanced demands. One country may have little to gain by reciprocally reforming policies in one particular issue, but much to gain from concessions on another issue. By limiting trade-offs between issues, considerable bargaining leverage is wasted.

As in previous rounds, each country accepts a "standstill and rollback commitment." This commits negotiating governments not to initiate any new trade policies inconsistent with GATT rules over the course of the talks and to phase out by the end of the talks any trade policies currently in place that are not consistent with GATT rules. The purpose of the standstill commitment is to provide some order to the negotiations by stopping a country from altering its trade policies so as to enhance its bargaining power. In past rounds, however, both commitments served more as statements of intent than enforceable promises. Various countries introduced new protection during the Tokyo Round--the U.S. trigger price policy for steel, for example--and any policy rollback occurred as a result of reciprocal bargaining.

The Economic and Political Environment

Trade issues are always politically sensitive, especially during periods of economic stress. Economic performance in one country is increasingly linked through international trade and monetary flows to activity in other economies. These linkages have recently been under great strain, as witnessed by large swings in exchange rates, prolonged weakness in world commodity markets, huge trade account imbalances, and the developing-country debt problem. World economic growth has been moderate at best over the last several years, and seems likely to continue that way.

Macroeconomic Policies and International Markets. Most of the instability in international markets can be explained by divergent macroeconomic policies in the United States, Japan, and the European countries.^{8/} During the early 1980s, emphasis shifted abruptly toward deflationary monetary policies, as key central banks refused to accommodate the second round of oil price increases. Generally weak economic growth ensued. World commodity prices plummeted, precipitating a crisis for many developing countries that had borrowed heavily and that depended on commodity exports. At the same time, U.S. fiscal policies produced record federal budget deficits, and key foreign governments moderated their fiscal deficits. Together, these trends contributed to a substantial appreciation of the dollar and a massive increase in the U.S. merchandise trade deficit (see box). Although recent changes in macroeconomic policies have reversed these trends to some degree, the world economy is still faced with huge trade imbalances and prospects in most countries for no better than moderate growth.

8. See Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1986-1990* (February 1985).

Foreign governments face the counterpart of the massive U.S. trade deficit problem. Many of them have relied on large trade surpluses with the United States to bolster their economies. High rates of unemployment exist throughout Europe. The rapidly growing Asian developing countries depend on trade surpluses with the United States, as do many debt-ridden Latin American countries. Japan, despite its enormous U.S. trade surplus, has lost its formerly high growth rate and is encountering problems characteristic of a mature economy. Improvement in the U.S. trade balance will therefore require a process of adjustment on the part of other countries, and the stresses of this adjustment will complicate bargaining positions in the Uruguay Round over the next several years.

Fundamental Shifts in Industrial Competitiveness. The industrial world has undergone far-reaching changes over the last several decades. Dramatic reductions in natural barriers to trade, such as communication and transportation costs, and the emergence of developing countries as competitive producers have increased the pace of international specialization. Many products from maturing and standardized industries in developed countries can be produced more cheaply in low-wage developing countries. Lower costs from large-scale production facilities encourage specialization even among developed countries, as in the case of high-technology products.

The resulting changes in trade flows have forced many economies to undergo major restructuring. Some workers, firms, and communities have improved their economic positions; others have lost. In almost all cases, though, there have been political repercussions.

Governments can seek to alter the situation with short-run policy responses, either unilaterally or through agreements with other countries. But such limited actions frequently do not resolve the causes of the root problem, and often create new problems with third countries or in other domestic sectors.^{9/} Multilateral negotiations can take account more directly of the many interactions between different countries and different economic sectors that are inherent in the application of trade policies. But as more parties participate in the negotiations, a wider range of interests must be satisfied. The reciprocal concessions involved in multilateral negotiations may cause additional dislocation in some sectors of each economy.

9. See Congressional Budget Office, *Has Trade Protection Revitalized Domestic Industries?* (November 1986).



THE U.S. TRADE AND BUDGET DEFICITS

The record foreign trade deficits experienced by the United States have focused attention on what causes them and how they can best be reduced. There have been proposals to use trade policy to change the export-import balance, or alternatively to try to negotiate a solution during the Uruguay Round.

Trade policy has had little to do with the emergence of the huge trade deficits, and it cannot be expected to reduce them significantly. Governments can effectively use trade policy to alter the composition of imports and exports by favoring certain industries at the expense of other industries. But the large aggregate trade deficits were caused primarily by macroeconomic conditions, and can be substantially curtailed only by changing those conditions.

International trade at the product level depends primarily on the relative price of a domestic product relative to similar foreign products and the real income of potential consumers. When the price of a good falls relative to those of close substitutes, or when real income increases, the demand for that product increases. Demand for traded goods and services depends both on industry-specific factors, such as changes in technology or the use of trade policies, and on economywide factors, such as exchange rates and differences in inflation and real income growth among countries, including those disruptions caused by the developing-country debt crisis. Confusion sets in when the determinants of foreign trade at the product level are used to explain net trade flows between countries.

The foreign accounts of an economy are directly linked to its saving and investment relationships with other countries. These relationships can be characterized by three sets of ratios, each defined relative to GNP: domestic and foreign private saving as ratios of GNP in each country; domestic and foreign private investment as ratios of GNP in each country; and domestic and foreign government budget deficits as ratios of GNP. When these ratios diverge among countries, domestic or international forces must respond to bring the relationships underlying them back into equilibrium. Trade policy can affect the aggregate trade balance only if it can affect these macroeconomic constraints--that is, only if it can alter the net capital flow into an economy.

Each of the three macroeconomic constraint ratios may change in response to various economic forces. Recent years have seen a dramatic increase in the U.S. government budget deficit ratio coupled with significant, although less dramatic, declines in many foreign government budget deficit ratios. The large U.S. government deficits expanded U.S. demand for investment funds (savings) at the same time as many foreign governments were creating new excess supplies of savings by reducing their

THE U.S. TRADE AND BUDGET DEFICITS

deficits. In a closed economy, excess domestic demand for savings would cause interest rates to rise, crowding out some domestic investment and encouraging new savings (and less consumption) until a new balance would be achieved. But in the current environment, where international financial transactions costs are negligible and exchange rates are flexible, the excess demand for savings in the United States attracted massive net inflows of financial capital from abroad, tempering any increase in U.S. interest rates. The increase in demand for dollars as foreigners purchased dollar-denominated assets raised the value of the dollar, causing the prices of U.S. goods and services to increase relative to foreign goods and services. To satisfy the balance of payments constraint, the exchange rate had to increase by enough to force the U.S. trade (current account) deficit to equal the net capital inflow from abroad. In essence, access to international markets shifted the domestic adjustment burden of the U.S. budget deficits away from interest-sensitive segments of the economy to traded-goods segments.

Government budget deficits are not the only cause of trade deficits. Divergences in private savings and private investment ratios across countries can also induce changes in international trade and capital flows. U.S. calls for more vigorous foreign growth are aimed at raising foreign private investment, which would both sop up foreign savings and increase foreign demand for U.S. goods and services. A major objective of the effort to relieve the developing-country debt crisis is to reduce pressure on the U.S. trade balance. The debt crisis, manifested mostly in Latin America, has forced these countries to limit imports severely, and to expand exports, in order to service their foreign debts. Private investment ratios in these countries have fallen, causing economic growth to deteriorate. The economic disruption associated with the debt crisis has been aggravated by significant private capital outflows from many of these countries, forcing them to produce even higher merchandise trade surpluses. Since the United States is the major trading and financial partner for most of the debt-constrained countries, the debt crisis has been a major contributor to the U.S. merchandise trade deficit.

Recognition of the myriad factors affecting international trade and capital flows has led some to call for expanding the scope of international economic cooperation by conducting parallel negotiations that would seek to coordinate macroeconomic policies, and thus stabilize exchange rates; remedy the debt crisis; and improve the conduct of trade policy. Such coordinated actions face formidable obstacles. Although GATT trade talks play a vital role in providing conditions that are conducive to expanding international trade and economic growth over time, they cannot be expected to offer a solution to the current U.S. trade deficit crisis.

THE URUGUAY ROUND AND THE CONGRESS

The nature of the new trade talks raises a number of important issues for the Congress. Most immediately, Congressional authority for the President to negotiate tariff reductions expired in 1982 and authority for nontariff barrier negotiations, with an expedited approval procedure, expires in January 1988. The bills now before the Congress would extend the President's negotiating authority. Such an extension will be necessary before a Uruguay Round agreement is completed. In the past, the Congress has provided the President with authority to reduce tariffs up to a specified amount over a fixed period of time without further Congressional approval. Authorizing bills have also indicated the priorities of the Congress for the negotiations. The Congress has always retained the right of final review for nontariff agreements, but does so on a fast-track basis--meaning that no amendments are allowed, and that a final vote on all the provisions as a package must be conducted within 90 days of submission.^{10/} Since the actual negotiating process is largely controlled by the Administration, and since subsequent changes are limited by the fast-track procedure, the authorizing bill will represent an important opportunity for the Congress to influence the outcome of the Uruguay Round.

Because the Uruguay Round will focus more than ever before on the impact of broad national policies on foreign trade, the final agreements reached during the talks may require changes in these national policies and may limit future Congressional policy options. For example, any major reform in European agricultural policies is likely to involve a demand for reciprocal reforms in U.S. farm policies. Reductions in barriers to services trade by foreign governments may require lower U.S. protection for manufactured goods such as apparel and steel; or they may require the United States to change immigration laws or reorder traditional state and federal responsibilities over the regulation of some services. Agreements limiting the subsidizing or "targeting" of industries may impede science and competitiveness policies; Sematech, the proposed consortium of semiconductor producers, for example, may be jeopardized by such an agreement. In any event, closer attention will be paid to the foreign-trade ramifications of national policies, both in the United States and abroad.

10. The crafting of a final GATT agreement involves a series of compromises between countries toward reaching an acceptable level of final reciprocity. In order to limit the unraveling of this process, fast-track authority prevents the Congress from changing the specifics of any part of the agreement.

This report is designed to provide an overview of the key factors affecting the role of the United States in the Uruguay Round of multilateral trade negotiations and to examine how these talks may influence domestic policy choices. It surveys the role of GATT in international trade relations, placing the Uruguay Round in perspective as the most recent stage of an ongoing process of trade liberalization. It then examines the potential effects of further liberalization on four key sectors of the U.S. economy: high-technology industries, agriculture, mature industries, and services. A study of these sectors shows some of the constraints upon the U.S. negotiating team. Some sectors may gain, and others may lose during multilateral negotiations. These distributional consequences of multilateral trade policy negotiations, though, are not likely to outweigh the overall benefits to the national interest resulting from a more open world trading system.



CHAPTER II

GATT NEGOTIATIONS IN PERSPECTIVE

Every round of multilateral trade negotiations represents a milestone in an evolving process of trade policy liberalization. The agenda and procedures for a new round of talks, therefore, are based on the legacy of previous rounds. This chapter surveys the history of the General Agreement on Tariffs and Trade (GATT), concluding with an overview of the key agenda items established for the Uruguay Round.

Over the last four decades, GATT has played a key role in helping developed countries reduce significantly their tariffs on imports: the average U.S. tariff on dutiable imports has fallen from almost 60 percent following the Smoot-Hawley Tariff Act in 1930 to around 5 percent currently. Partly because of this success, though, nontariff policies have replaced tariffs as the prevalent form of protection throughout the world. Member countries have not provided GATT with the tools to liberalize nontariff barriers to trade. This often reflects fundamental disagreements among key governments over what are acceptable nontariff trade policies--disagreements that are aggravated because many controversial nontariff barriers are directly linked to national policy packages aimed primarily at domestic instead of international policy goals. Whether the Uruguay Round can successfully prod governments to reduce such barriers depends fundamentally on the willingness of key governments, including some advanced developing countries, to reform national policies that are harmful to international trade.

THE GENERAL AGREEMENT ON TARIFFS AND TRADE

GATT is both a multilateral agreement (the General Agreement) and a corresponding international organization (the GATT Secretariat). Currently 93 countries, accounting for over four-fifths of world trade, are members of GATT, and another 31 countries abide by its rules. ^{1/}

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1. The Soviet Union, Taiwan, and the Peoples Republic of China are the only major trading countries that are not members of GATT. The Peoples Republic has applied for membership and will be allowed to participate on an equal basis in the Uruguay Round. A recent application by the Soviet Union was rejected by GATT.



The General Agreement--including not only the original articles but additions to them, as well as a number of protocols and the tariff schedules of each member country--is a legal document that spells out the underlying principles and operating rules agreed upon by the contracting parties to regulate their conduct of trade policy.^{2/} Encouraging growth in international trade based on economic factors rather than on government policies is the unifying premise of the General Agreement. The GATT Secretariat, which acts on behalf of the contracting parties and their Council of Representatives, helps to administer the General Agreement by sponsoring multi-lateral trade negotiations, by monitoring trade flows and trade policies, and by hosting consultations to help countries resolve trade disputes.

GATT has little independent power. Rather, it provides a forum in which governments can reconcile trade policy conflicts, as well as a set of principles that the members have agreed to be mutually beneficial. It plays a passive role, reinforcing the desires of its members but rarely initiating action. When member governments agree on the need for policy reform, GATT helps facilitate the reform. But GATT cannot coerce countries to change their policies against their will. Member countries have yet to agree to yield sovereignty over national policy actions to an international body.

Although the General Agreement clearly states certain general principles, so many exceptions are allowed in qualifying articles that a wide-range of policy actions--many of them contradicting the spirit, if not the letter, of the GATT principles--can be justified. GATT enforcement procedures rely mainly on suasion, ultimately depending on good faith and the fear of retaliation.^{3/}

The Origin of GATT

GATT originated in 1947 as a relatively minor element of an ambitious post-war plan to promote peace and economic well-being by limiting political and economic tensions among countries. The World Bank and the International

2. See Kenneth W. Dam, *The GATT: Law and International Economic Organization* (Chicago: University of Chicago Press, 1970), for a detailed examination of the General Agreement.

3. Reciprocity, a cornerstone of GATT, is double edged--one country can offer a trade policy concession in return for an equivalent concession by its trading partner, or a country can implement a trade barrier in retaliation for an increase in another country's trade barriers. GATT has been much more successful in encouraging the former than in discouraging the latter.

Monetary Fund were designed to address developmental and international monetary problems. An International Trade Organization (ITO) was proposed to regulate trade relations among countries and to encourage trade liberalization. The General Agreement was devised as a provisional document to hasten the start of multilateral tariff negotiations while the relevant governments were ratifying the ITO charter. Despite the support of President Truman, however, the charter encountered opposition in the U.S. Congress and failed to win enough votes for ratification. But Congressional approval was not required for the General Agreement, which Truman approved through an Executive Agreement. Most of the ITO charter dealing with commercial trade policy was incorporated into the General Agreement, and it has remained the internationally accepted standard for the conduct of trade policy.

As a weak substitute for the envisioned ITO, a GATT Secretariat, with a very small staff, was created to oversee the General Agreement and to manage multilateral trade negotiations. Since this modest inception, the prestige and responsibility of the GATT Secretariat (now consisting of over 300 employees) has grown steadily as it has led the drive to liberalize trade policies.

Fundamental Principles of the General Agreement

Literally, the General Agreement is a detailed legal document that defines the responsibilities and operating rules agreed upon by member governments to guide their conduct of international trade relations (see box). As stated in its preamble, the goal of the General Agreement is to raise living standards through "reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment in international commerce."

Four key principles underlie the General Agreement:

- o Member countries should work to lower trade barriers in general, and to eliminate the use of quotas in particular.
- o Any barrier to trade should be applied on a nondiscriminatory basis to all member countries (most-favored-nation treatment).
- o Once a tariff concession is made, it cannot later be rescinded without compensating affected trade partners. Also, other forms of protection cannot be employed to circumvent the effect of the concession.



THE GENERAL AGREEMENT IN BRIEF

The Preamble of the General Agreement proposes to raise living standards by reducing trade barriers and, in particular, by eliminating discriminatory trade practices. Part I states the basic principle of nondiscrimination and legally binds members to comply with their tariff concessions. Part II calls for the elimination of nontariff barriers, subject to several qualifications. Part III contains procedural rules, most importantly condoning the formation of free trade areas. Part IV, added in 1965, addresses the special needs of the developing countries.

Part I

MFN. Article I provides that a tariff on an imported product should be applied equally to all members. This affirmation of nondiscrimination is called most-favored-nation (MFN) treatment.

Binding tariff schedules. Article II legally binds members to their tariff concessions. It states that tariffs should not be increased above the rates in each country's tariff schedule.

Part II

National treatment. Article III prohibits members from circumventing tariff concessions by employing nontariff policies to offset the effect of a tariff reduction. National treatment requires that internal taxes apply equally to domestic and imported products and that regulations treat imported goods "no less favorably" than similar domestic goods.

Customs regulations. Articles V and VII through X curb customs procedures that impede imports. Such activities include rules of transit (article V), customs valuation (article VII), customs fees and formalities (article VIII), and marks of origin (article IX). Article X states that all laws and regulations regarding trade should be formulated and applied in a transparent manner, which requires public disclosure and the uniform and impartial administration of trade laws.

Antidumping and countervailing duties. Article VI defines dumping, states that both dumping and injury to domestic producers must be proved in order to merit an antidumping duty remedy, and specifies that antidumping duties should not exceed the dumping margin. It provides similar rules for the countervailing duty remedy to offset foreign government subsidies.

Quantitative restrictions. Article XI calls for the general elimination of quantitative restrictions (QRs) to trade, subject to several qualifications. Most importantly, QRs can be used to safeguard the balance of payments (article XII) and to provide temporary escape clause relief for domestic industries (article XIX). Developing countries can also use QRs to further developmental goals (article XVIII and Part IV). Article XIII states that QRs, when employed, must be applied on a nondiscriminatory basis, with some exceptions listed in article XIV. Article XV regulates the use of currency controls to evade QR restrictions, and coordinates GATT and IMF interests during balance-of-payments emergencies.

Part II
(Continued)

Subsidies. Article XVI discourages the use of subsidies in general, and calls for the elimination of export subsidies for nonprimary products in particular. Export subsidies for primary products should not cause a country to achieve more than an equitable share of world export trade in that product.

State-owned enterprises. Article XVII asserts that state-owned enterprises should choose among potential buyers and sellers according to normal business considerations, especially in terms of prices, quality, and procurement.

Government assistance in developing countries. Article XVIII affords developing countries exemptions to most of the requirements of the General Agreement, subject to rigorous criteria. Because of its strict standards, these exemptions have rarely been employed. Instead, developing countries have justified their use of policies such as nontariff barriers and export subsidies as safeguards for balance-of-payments problems.

Escape clause and other exceptions. Articles XIX through XXI provide additional exceptions to the general rules. Article XIX, the escape clause, allows countries to protect, through withdrawal of concessions or other measures, domestic producers from injury resulting from increases in imports. Articles XX and XXI identify other essentially noneconomic justifications for trade restrictions, such as for national security protection.

Consultation and dispute settlement. Articles XXII and XXIII lay out the dispute settlement process of GATT. Consultation between countries is emphasized, but panels of experts can also be asked to review cases on a nonbinding basis.

Part III

Procedural issues. Procedural and other administrative matters are taken up in articles XXIV through XXXV. Most notably: article XXIV addresses how free trade areas are to be established; article XXVIII sets rules for modifying tariff schedules, including a call for periodic tariff negotiations; and article XXXIII establishes criteria for accession of new members.

Part IV

Trade and development--treatment of developing countries. Article XXXVI acknowledges the special problems confronted by developing countries, and states that developed countries should not expect reciprocity from developing countries. Article XXXVII contains a statement of the intent of developed countries to encourage developing country exports by unilaterally lowering trade barriers, and article XXXVIII includes encouragement to stabilize and improve market conditions for primary products.

Sources: General Agreement on Tariffs and Trade; International Trade Commission; and Congressional Budget Office.

- o Trade conflicts should be settled by consultation whenever possible, using as a guide a set of codified and mutually accepted rules for the conduct of trade.

Trade Liberalization and the Elimination of Quotas. The General Agreement has always championed an open trading system. Consequently, it has favored tariffs over quotas, and has sought to reduce tariffs over time. Quotas are discouraged for two reasons: by limiting import quantities, their protective effect can vary as market conditions change; and their impact on prices cannot be directly observed. Their lack of "transparency" makes it difficult to measure the protective impact of a quota and to compare its effect with trade policies applied in other sectors or countries.

Most-Favored-Nation Treatment. Tariffs, or any other form of protection, should be applied on a nondiscriminatory basis across all member countries. Each country should be treated as a "most-favored nation." Nondiscrimination insures that imports will be supplied at the lowest cost by the most competitive foreign suppliers. If domestic suppliers must be protected from foreign competition, the form of that protection should not introduce additional distortions to trade. Discrimination may lead to wasteful trade diversion; it also complicates trade negotiations and enhances the possibility of retaliation.^{4/} Unconditional most-favored-nation treatment reflects the ideal of full nondiscriminatory treatment of all import suppliers. It precludes bilateral and preferential agreements that favor one or a group of countries.

Insuring the Integrity of Tariff Concessions. To legitimize trade negotiations, governments must not be able to circumvent the effect of tariff reductions they have agreed to during reciprocal bargaining. The General Agreement confronts this in two ways. First, during tariff negotiations, countries promise to bind tariff rates for particular products at a certain level--that is, promising not to increase those tariff rates in the future. If a country decides to increase a tariff above the bound rate, it must notify GATT and is liable for compensation to affected trading partners. Second, no other type of government policy can be employed to offset the impact of

4. A policy is trade diverting if, in favoring one country over another, it diverts trade from low-cost to higher-cost producers. Under competitive conditions, consumers in the home market are not affected by trade diversion in the short run since landed import prices remain the same, but resources are misallocated, inhibiting worldwide growth in the long run. Where policies stimulate trade, policies can be trade creating, improving both resource allocation and consumer benefits. Trade suppression results when policies reduce total trade flows, injuring consumers and misallocating resources.

the concession. The General Agreement requires national treatment of imported goods, meaning that a country's internal taxes must be applied equally to both imports and domestic goods and that its regulations must treat imports "no less favorably" than similar domestic products. Additionally, the General Agreement discourages the dilution of another country's tariff schedule by the use of government subsidies or through actions by private firms (dumping) that cause exports to be sold at less than normal prices. Effectively, countries are not allowed to gain through export subsidies or nontariff barriers to imports what they could not gain through tariff negotiations.

Dispute Settlement. GATT plays a passive enforcement role, relying primarily on the good faith of its members to abide by its rules. Instead of actively policing compliance, GATT responds only to complaints initiated by members. When trade policy disputes arise, the GATT dispute settlement process encourages members to employ consultation procedures to reconcile the problem among themselves, using GATT rules as a guideline. If consultation fails, disputants have the right to call together a panel of third-party representatives for a ruling on the case. Although the panel ruling is not legally binding, it can be made binding if approved by the GATT Council. If all else fails, a party can submit an argument to the GATT Council for approval of retaliatory action. GATT Council approval of rulings and retaliatory actions requires a unanimous vote. As a result, any ruling or retaliatory action can be vetoed by any party to a dispute. Thus, there is currently no coercive enforcement mechanism short of sanctioned retaliation, and even this can be vetoed by the offending party.^{5/}

Exceptions to the Principles of the General Agreement

As in any general body of rules, some exceptions are needed to handle special circumstances. When the General Agreement was conceived in 1947, exceptions to the basic principles were made to allow countries to join GATT without immediately negating existing domestic policies or limiting

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5. Rulings by GATT, although generally not enforceable, carry some weight as citations of improper behavior. For example, GATT ruled that the U.S. program of tax relief for exports, the Domestic International Sales Corporation (DISC), violated GATT rules. Although the United States refused to acknowledge the validity of the GATT ruling, after a long process it replaced DISC with a new program - - the Foreign Sales Corporation (FSC) - - that conforms with GATT. For a detailed discussion of the history and structure of the FSC, see Joint Committee on Taxation, *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984* (December 31, 1984), pp. 1037-1070.



key future policy options. Several additional exceptions have been added. These exceptions have now become so numerous and broad-reaching that, in practice, few trade policy targets are hindered by the General Agreement. ^{6/}

Exceptions to the Trade Liberalization Principle. GATT's goal of trade liberalization in general and the elimination of quotas in particular is limited to trade in manufactured goods, excluding textiles and apparel, among developed countries that do not have serious balance-of-payments problems and in industries where imports do not cause serious injury to domestic producers. Various national policies with foreign trade ramifications, such as health and safety regulations, and policies justified by national security interests, are also excepted.

Trade coverage is limited because the General Agreement does not cover trade in services and intellectual property, nor trade related to foreign investment regulations and performance requirements. The General Agreement, weakened by a 1955 waiver that permitted broad U.S. agricultural import quotas, allows nontariff barriers for many primary products. Additionally, a multilateral system of import quotas on textiles and apparel trade (the Multifiber Arrangement) has been permitted, and voluntary export restraints and orderly marketing agreements are not formally covered. Developing countries are excluded from most of the rigor of the GATT principles in recognition of their special need to fashion self-serving policies that may speed development. Safeguards permit the use of quantitative restrictions during balance-of-payments emergencies and for temporary protection of sectors that have been seriously injured by increases in imports (the escape clause). ^{7/}

Exceptions to the Most-Favored-Nation Principle. The General Agreement sanctioned discriminatory actions by permitting countries to continue colonial preference schemes that existed before GATT's establishment; to

6. As explained in more detail later in this chapter, codes of conduct were established during the Tokyo Round to fortify GATT rules and procedures for several types of nontariff policies. In practice, though, these codes have not significantly strengthened GATT's role.
7. Safeguards were established initially to accommodate the widespread use of these policies following World War II. Except for the United States, quotas were used liberally to conserve and allocate foreign exchange during postwar balance-of-payments emergencies. The escape clause was included mainly at U.S. insistence, since U.S. law required the government to show that tariff concessions would not cause serious injury to domestic producers.

develop programs for preferential tariff treatment for developing countries (such as the Generalized System of Preferences in the United States); and to form free-trade areas or customs unions such as the European Economic Community. The Multifiber Arrangement uses bilateral quotas rather than a nondiscriminatory global import quota. In addition, the safeguard actions mentioned above often employ discriminatory remedies, as exemplified by the recent rash of voluntary export restraints and orderly marketing agreements applied by several countries, especially the United States.^{8/}

Exceptions to Defending the Integrity of Tariff Concessions. GATT's weak restrictions on subsidies and other nontariff barriers allow countries to offset the effects of tariff concessions. Increasingly, escape clauses and unfair trade actions are used to this end.

Ineffective Dispute Settlement Procedures. GATT's enforcement procedures lack clout. It has very limited authority to penalize governments that break the rules. Moreover, its dispute settlement procedures are notoriously slow, often taking several years for a final, yet still nonbinding, ruling. When good-faith compliance to GATT rules fails, it is the threat of retaliation, not the GATT dispute settlement process, that looms as the main restraint to abuse.^{9/}

Rules, Procedures, and Nontariff Barriers

As Kenneth Dam has pointed out, an effective body of law is more than "a set of substantive rules. It is also a set of procedures, adapted to the subject matter and designed to resolve disputes that cannot be foreseen at the moment when those procedures are established."^{10/} For a legal system to be

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8. The United States has recently negotiated voluntary export restraints (VERs) for steel, autos, and machine tools. Orderly marketing arrangements (OMAs) were used by the United States during the 1970s for non-rubber footwear and televisions. Although not all of these policies were directly related to a safeguard action, each policy did set different quota limits for different countries. Many European countries have also employed these types of policies; most notably, many European countries have a VER on automobiles with Japan. VERs and OMAs as trade policy options are not currently covered by GATT rules, but they clearly violate the spirit of the GATT principles.
 9. For a more thorough examination of this issue, see U.S. International Trade Commission, *Review of the Effectiveness of Trade Dispute Settlement Under the GATT and the Tokyo Round Agreements*, Publication 1793 (Washington, D.C., December 1985).
 10. Kenneth W. Dam, *The GATT: Law and International Economic Organization*, p. 4.

effective, rules and procedures must be compatible, and adaptable to circumstances. Strong rules limit procedural flexibility, but weak rules that vaguely differentiate permissible activities hamper the most vigilant enforcement efforts.

The General Agreement is not a set of strong, substantive rules and viable enforcement procedures. Rather, it provides a loose conceptual and procedural framework that encourages countries to identify common interests so they will have a basis for entering into mutually advantageous agreements. In retrospect, a weak but flexible GATT has proved quite successful in promoting tariff reduction and integrating a broad range of countries into the world trading system. At the same time, frustration has mounted over the inability of GATT to control nontariff barriers (NTBs), which are replacing tariffs as the primary mode of protection.

Nontariff barriers introduce a number of new problems for GATT. They are inherently less transparent than tariffs, making it harder to identify those government policies that restrain trade. Even when NTBs are applied in a straightforward manner, as in the case of import quotas, their protective impact cannot be measured directly. To make NTBs more transparent, it will be necessary to develop common techniques for reporting and quantifying NTBs that are consistently applicable across products, countries, and types of trade policies.^{11/} Before liberalization of NTBs can even be addressed, considerable effort will be needed just to place them on a commonly accepted tariff equivalent basis. Transparency can be achieved most quickly by converting all nontariff barriers to ad valorem tariffs (or in some cases by auctioning the quota rights).^{12/}

Rules must also be developed, and adapted over time, to delineate national policies that constitute nonpermissible trade barriers. This task is complicated by several factors. As economies become increasingly open to international influences, a broader range of national economic policies influence foreign trade flows. But most countries do not want to invite international scrutiny of what they consider to be domestic policies. Moreover,

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11. As examined more fully in the chapter on agriculture, producer and consumer subsidy equivalents have been estimated for many countries' nontariff agricultural policies in an attempt to achieve greater transparency.
 12. See Everett M. Ehrlich and Raymond C. Scheppach, *New Directions in Economic Policy: An Agenda for the 1980s* (New York: Praeger, 1984), pp. 183-188, for an overview of the role of transparency in the trade liberalization process.

many regulations that affect trade, especially those related to services, are controlled not by national governments but by state, local or provincial governments. Defining "fair trade," then, places a premium on rules. Without more concrete rules, cheating cannot be well defined and therefore cannot easily be corrected.

But even the most precise rules must be backed by suitable enforcement procedures and penalties to be effective. Otherwise the principal sanction will be the threat of retaliation, which inherently favors the strong over the weak. Current GATT procedures have not dealt adequately with enforcement of NTB rules. Designing more effective enforcement procedures will be complicated by the lack of transparency inherent to NTBs and because strong international enforcement ultimately infringes on national control over key policy actions. Thus, a major focus of the Uruguay Round will be the difficult task of sharpening and extending GATT rules and procedures that deal with a wide array of nontariff barriers.

PREVIOUS ROUNDS: STAGE-BY-STAGE LIBERALIZATION

The Uruguay Round is the eighth GATT-sponsored multilateral trade negotiation since World War II and the first since the conclusion of the Tokyo Round in 1979. Previous negotiations produced steady, if rarely dramatic, progress toward the goal of trade liberalization. Over time, import tariffs in developed countries have been significantly reduced and initial attempts have been made to regulate the use of nontariff barriers. The agenda for the Uruguay Round reflects the accomplishments, and failures, of these previous rounds.

The Early Rounds

The Smoot-Hawley Tariff Code of 1930 raised the average tariff rate on U.S. dutiable imports to almost 60 percent (Table 1).^{13/} Most major U.S. trading partners quickly retaliated by raising their own tariffs, further stifling world trade. With the change in administration in 1933, the United States reversed policies. The Reciprocal Trade Agreements Act of 1934 broke new ground by shifting most authority over tariffs from the Congress

13. For a good overview of U.S. trade policy through the Kennedy Round, see John W. Evans, *The Kennedy Round in American Trade Policy: The Twilight of the GATT?* (Cambridge: Harvard University Press, 1971).

TABLE 1. U.S. TARIFF RATES, 1789 THROUGH 1984
(In millions of dollars and percentages)

Year	Imports	Percent Duty-Free	Calculated Duties	Ratio of Calculated Duties ^{a/}		
				Total Imports	Dutiable Imports	Federal Revenue
1789-1791	n.a.	n.a.	4	n.a.	n.a.	99.5
1800	91	n.a.	9	9.9	n.a.	83.7
1810	85	n.a.	9	10.6	n.a.	91.5
1820	74	n.a.	15	20.3	n.a.	83.9
1830	50	8.0	28	57.3	61.7	88.2
1840	86	48.8	15	17.6	34.4	69.3
1850	164	9.8	40	24.5	27.1	91.0
1860	336	20.2	53	15.7	19.7	94.9
1870	426	4.7	192	44.9	47.1	47.3
1880	628	33.1	183	29.1	43.5	55.9
1890	766	33.7	227	29.6	44.6	57.0
1900	831	44.2	229	27.6	49.5	41.1
1910	1,547	49.2	327	21.1	41.6	49.4
1915	1,648	49.2	206	12.5	33.5	30.1
1920	5,102	61.1	326	6.4	16.4	4.8
1925	4,176	64.9	552	13.2	37.6	14.5
1930	3,114	66.8	462	14.8	44.7	14.1
1932	1,325	66.9	260	19.6	59.1	16.3
1935	2,039	59.1	357	17.5	42.9	9.0
1940	2,541	64.9	318	12.5	35.6	5.9
1945	4,098	67.1	381	9.3	28.2	0.7
1950	8,743	54.5	522	6.0	13.1	1.0
1955	11,337	53.3	633	5.6	12.0	0.9
1960	14,650	39.5	1,084	7.4	12.2	1.2
1965	21,283	34.9	1,643	7.7	11.9	1.2
1970	39,756	34.9	2,584	6.5	9.9	1.2
1975	96,516	32.2	3,780	3.9	5.8	1.3
1980	244,007	43.8	7,535	3.1	5.7	1.4
1984	322,990	31.9	12,042	3.7	5.5	1.4

SOURCE: Stephen L. Lande and Craig VanGrasstek, *The Trade and Tariff Act of 1984: Trade Policy in the Reagan Administration* (New York: Lexington Books, 1986), p. 4; adapted from Bureau of the Census, *Statistical Abstract of the United States* (various editions).

n.a. = not available.

- a. Trade-weighted average tariff rates can change not only because of changes in tariff policy, but also as the composition of imports shifts among products with different tariff rates and as inflation lowers the ad valorem equivalent rate of specific tariffs. Also, trade-weighted averages of tariffs are biased downward because trade flows tend to be lower where the protective effect of a tariff is highest.

to the President, who was authorized to cut most rates by up to 50 percent in exchange for reciprocal cuts by major trading partners. All tariff cuts were to be extended on a "most-favored-nation" basis. The Presidential authority was limited, though, by an agreement with the Congress to negotiate tariff cuts on a product-by-product basis, with no tariff to be cut if this threatened serious injury to a domestic industry. Over the next 11 years, a series of bilateral negotiations with major U.S. trading partners succeeded in reducing the average Smoot-Hawley tariff by about one-third.

The first GATT-sponsored multilateral trade negotiation (MTN) convened in 1947. Although most of the negotiations remained bilateral and product-by-product in nature, the interplay among the many partners resulted in significant further reductions in tariffs.^{14/} On average, the existing U.S. tariff structure (scheduled rates) was cut by about one-third (see Table 2, which includes only the impact of various negotiations on scheduled tariff rates). By 1950, the average tariff on dutiable imports had fallen by about 75 percent compared to Smoot-Hawley tariff levels (see Table 1, which includes the impact of all factors on average realized tariff rates). Although much of this drop can be attributed to the various tariff negotiations, changes in the composition of imports and the impact of inflation on specific tariffs also helped to lower realized tariff rates over this period.

The Kennedy Round

GATT sponsored four more MTNs over the next 15 years. Little additional tariff reduction was accomplished during this period, partly because of political pressures in the United States against further cuts, but also because considerable energy was spent on forming the European Community (EC) and integrating it into the world trading system. Significant progress

14. In these early negotiations, the United States generally made larger cuts than did its trading partners. Often, the main concessions by others were to bind their rates at then current levels, rather than reducing them. The United States accepted this as reciprocal treatment because many U.S. tariffs were considerably higher than those of its trading partners at the time. In fact, in many cases, U.S. tariffs were so high that reductions had little impact on trade flows. Since the United States ran a trade surplus in almost every major industrial sector following World War II, it had little to lose and much to gain in both economic and political terms by encouraging worldwide trade and economic growth. The lack of a strong leader in the current international political environment may retard liberalization efforts. See Robert E. Baldwin, "The Changing Nature of U.S. Trade Policy since World War II," in Robert E. Baldwin and Anne O. Krueger, eds., *The Structure and Evolution of Recent U.S. Trade Policy* (Chicago: University of Chicago Press, 1984).

TABLE 2. DUTY REDUCTIONS SINCE 1934 UNDER
THE U.S. TRADE AGREEMENTS PROGRAM
(In percents)

GATT Conference	Proportion of Dutiable Imports Subjected to Reductions	Average Cut in Reduced Tariffs	Average Cut in All Duties	Remaining Duties as a Proportion of 1930 Tariffs ^{a/}
Pre-GATT, 1934-1947	63.9	44.0	33.2	66.8
First Round, Geneva, 1947	53.6	35.0	21.1	52.7
Second Round, Annecy, 1949	5.6	35.1	1.9	51.7
Third Round, Torquay, 1950-1951	11.7	26.0	3.0	50.1
Fourth Round, Geneva, 1955-1956	16.0	15.6	3.5	48.9
Dillon Round, Geneva, 1961-1962	20.0	12.0	2.4	47.7
Kennedy Round, Geneva, 1964-1967	79.2	45.5	36.0	30.5
Tokyo Round, 1974-1979	n.a.	n.a.	29.6	21.2

SOURCE: Real Phillippe Lavergne, *The Political Economy of U.S. Tariffs* (Ph.D. thesis, University of Toronto, 1981).

n.a. = not available.

a. These percentages do not take account of the effects of either structural changes in trade or of inflation on the average tariff level.

on lowering tariffs was accomplished in the sixth GATT-sponsored MTN, the Kennedy Round, which lasted from 1964 to 1967. Not only were duties cut on average by 36 percent, but the cuts were spread over the broadest set of products to date--some cut in tariff being made on almost 80 percent of all dutiable imports. Much of the success of this round is attributable to the employment of a negotiating procedure that initially cut all tariff rates automatically by 50 percent.^{15/} After that, the parties negotiated sectoral and product-by-product exemptions.

The Kennedy Round was also important because, for the first time, an agreement was reached to resolve conflicts over nontariff barriers. It took the form of an Antidumping Code and an agreement to eliminate the U.S. system of American Selling Prices.^{16/} Although the Congress blocked both of these, they were accepted in the next MTN.

One major economic sector, agriculture, was not a part of these liberalization efforts. A waiver that permitted broad quantitative restrictions on agricultural products was granted the United States in 1955, and this served as a precedent for other countries to protect their agricultural sectors as well. Also, developing countries, which have played a minor role in GATT negotiations, did not reduce their trade barriers over this period.

The Tokyo Round

During the late 1960s, economic growth abated and inflation surged. Relatively high U.S. inflation, along with fixed exchange rates, caused the dollar to appreciate significantly in real terms. The resulting deterioration in the U.S. trade accounts led to the breakdown of the fixed exchange rate system

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15. A 50 percent linear cut emerged after a spirited debate about the merits of a linear versus a harmonized formula for cuts. Harmonization cuts higher tariff rates by a greater percentage than lower rates, pushing overall rates toward the average. Representatives of the European Community argued that the U.S. tariff schedule included a larger amount of above-average tariffs than did that of the EC, yielding significant protection to these products. EC tariffs tended to be more even because, during the formation of the EC, the common external tariff was calculated by averaging the tariffs of each member country.
 16. The American Selling Price (ASP) system applied a tariff rate for certain imports to a dutiable value set artificially high to equal the price of a competing good produced domestically instead of to the import's actual invoice price. ASP was applied to a relatively small portion of total imports, mainly benzenoid chemicals and rubber footwear.

in 1971. The high real value of the dollar exacerbated a U.S. decline in world markets as Europe regained competitiveness and as Japan and developing countries became competitive. U.S. producers lost ground not only in foreign markets, but also in many domestic markets.

The economic and political environment during this time, especially after the tripling of oil prices by OPEC in 1973, was more conducive to expanding protection rather than reducing it. Nevertheless, in 1974 the Congress provided the President with authority to enter the Tokyo Round of multilateral negotiations to liberalize trade policy.^{17/} This act gave the President power to cut all tariffs by up to 60 percent (and to eliminate rates under 5 percent). The Congress also directed the President to negotiate agreements with other countries on nontariff barriers, recognizing their increasing use throughout the world. Unlike tariff reductions, though, any agreement on nontariff barriers had to be approved by majority votes in both the House and the Senate.

The major accomplishment of the Tokyo Round may have been to restrain major increases in protection. Nevertheless, the negotiations succeeded in lowering tariff rates for many goods and in producing a number of agreements on codes of conduct for nontariff barriers.

Tariff Reductions. Average U.S. tariff rates were again reduced by almost one-third, from about 6 percent to about 4 percent on dutiable imports, using a compromise automatic formula with some harmonization effect^{18/}. Average U.S. tariff rates for industrial products were cut from 6.4 percent to 4.4 percent, while average tariffs on industrial products in the European Economic Community and Japan were cut from 6.6 percent to 4.7 percent, and from 5.5 percent to 2.8 percent, respectively (see Table 3). Nevertheless, each country excluded a number of key products from any tariff reduction. Table 4 shows the average Tokyo Round tariff cuts by broad industrial groups for the United States, the EC, and Japan. Although it is

17. The 1974 Trade Act followed a failed attempt to produce a trade bill with GATT authorization in 1972. The compromise that generated the 1974 act included provisions that made it easier for industries to receive trade adjustment assistance benefits and to obtain affirmative rulings for escape clause actions. Also, a new trade policy tool, provided under Section 301 of the act, gave the President the power and obligation to initiate unilaterally negotiations to reduce foreign trade barriers that restricted U.S. exports. Reciprocity in the form of retaliation could be employed if foreign governments did not appropriately cooperate.

18. As had been done in most previous rounds to reduce domestic adjustment costs, these cuts were phased in over time. In this case, the phase-in period was eight years, beginning in 1980.

TABLE 3. TOKYO-ROUND TARIFF CUTS BY STAGE OF PROCESSING FOR THE UNITED STATES, THE EUROPEAN COMMUNITY, JAPAN, AND CANADA (In percent)

Country and Period	All Industrial Products	Raw Materials	Semi-Manufactures	Finished Manufactures
United States				
Rates Before Tokyo	6.5	0.9	4.5	8.0
Rates After Tokyo	4.4	0.2	3.0	5.7
Percent Cut	31	77	33	29
European Community				
Rates Before Tokyo	6.6	0.2	5.1	9.7
Rates After Tokyo	4.7	0.2	4.2	6.9
Percent Cut	29	15	27	29
Japan				
Rates Before Tokyo	5.5	1.5	6.6	12.5
Rates After Tokyo	2.8	0.5	4.6	6.0
Percent Cut	49	67	30	52
Canada				
Rates Before Tokyo	13.6	1.0	14.8	13.8
Rates After Tokyo	7.9	0.5	8.3	8.3
Percent Cut	42	48	44	40

SOURCES: Director General of GATT, *The Tokyo Round of Multilateral Trade Negotiations, Volume II Supplementary Report* (Geneva, 1980), p. 33; and the Congressional Budget Office.

hard to estimate the protective impact of changes in nominal tariffs, post-Tokyo Round tariffs remain above 7 percent for a number of industries in each country, most notably for textiles, apparel, and footwear. ^{19/}

19. Nominal tariffs increase the price of imports relative to domestically produced goods. The protective impact, however, is measured by how the quantity and price of imported and domestically produced goods change in response to a change in tariffs. This response depends most importantly on the reaction of consumers to changes in the relative prices of the imported goods and their domestic substitutes (price elasticities) and on the levels of tariffs on final goods compared to the levels of tariffs on intermediate inputs (the effective rate of protection).

TABLE 4. TOKYO-ROUND TARIFF CUTS BY INDUSTRY FOR THE UNITED STATES,
THE EUROPEAN COMMUNITY, AND JAPAN (In percent)

	Pre-Tokyo-Round Tariff Rates			Post-Tokyo-Round Tariff Rates			Percent Cut		
	U.S.	EC	Japan	U.S.	EC	Japan	U.S.	EC	Japan
Agriculture, Forestry, and Fisheries	2.2	7.1	18.4	1.8	4.9	18.4	-18	-31	0
Food, Beverages, and Tobacco Products	6.3	12.4	25.4	4.7	10.1	25.4	-25	-19	0
Textiles	14.4	9.8	3.3	9.2	7.2	3.3	-36	-27	0
Wearing Apparel	27.8	16.8	13.8	22.7	13.4	13.8	-18	-20	0
Leather Products	5.6	3.7	3.0	4.2	2.0	3.0	-25	-46	0
Footwear	8.8	11.7	16.4	8.8	11.6	15.7	0	-1	-4
Wood Products	3.6	3.3	0.3	1.7	2.5	0.3	-53	-24	0
Furniture and Fixtures	8.1	8.5	7.8	4.1	5.6	5.1	-49	-34	-35
Paper and Paper Products	0.5	7.3	2.1	0.2	5.4	2.1	-60	-26	0
Printing and Publishing	1.1	3.2	0.2	0.7	2.1	0.1	-36	-34	-50
Chemicals	3.8	11.5	6.2	2.4	8.0	4.8	-37	-30	-23
Petroleum and Related Products	1.4	1.2	2.8	1.4	1.2	2.2	0	0	-21
Rubber Products	3.6	5.3	1.5	2.5	3.5	1.1	-31	-34	-27
Nonmetallurgical Mineral Products	9.1	5.2	0.6	5.3	3.7	0.5	-42	-29	-17
Glass and Glass Products	10.7	9.9	7.5	6.2	7.7	5.1	-42	-22	-32
Iron and Steel	4.7	6.2	3.3	3.6	4.7	2.8	-23	-24	-15
Nonferrous Metals	1.2	2.6	1.1	0.7	2.1	1.1	-42	-19	0
Metal Products	7.5	7.9	6.9	4.8	5.5	5.2	-36	-30	-25
Nonelectrical Machinery	5.0	6.5	9.1	3.3	4.4	4.4	-34	-32	-52
Electrical Machinery	6.6	9.9	7.4	4.4	7.9	4.3	-33	-20	-42
Transport Equipment	3.3	10.2	6.0	2.5	8.0	1.5	-24	-22	-75
Miscellaneous Manufactures	7.8	7.7	6.0	4.2	4.7	4.6	-46	-39	-23

SOURCES: Alan Deardorff and Robert Stern, "The Effects of the Tokyo Round on the Structure of Protection," in Robert Baldwin and Anne Krueger, eds., *The Structure and Evolution of Recent U.S. Trade Policy* (Chicago: University of Chicago Press for the National Bureau of Economic Research, 1984), pp. 370-375; and the Congressional Budget Office.

NOTE: Average tariff rates are calculated using own-country import weights over each country's detailed tariff schedule. Post-Tokyo-Round rates are being phased in over an eight-year period that began in 1980.

Even though the average tariff across all imports is relatively low for the major developed countries, grouping average tariffs by stage of processing (see Table 3) shows that tariff rates are significantly higher for final products than for raw materials. Such "tariff escalation" provides protection to manufacturing processes often far in excess of the nominal tariff rate on the good in question.^{20/} Although average tariff rates have been reduced steadily over the last two MTNs, tariff escalation remains an important distortion of trade for several major sectors in the developed countries, an issue of particular interest to developing countries.

Codes of Conduct for Nontariff Trade Policies. The Tokyo Round was distinguished most clearly from previous MTNs by its success in negotiating a series of agreements (codes of conduct) to regulate how governments apply a number of nontariff trade policies. Many of these codes extend or refine obligations implied in GATT articles, but which were the subject of dispute as governments interpreted the GATT rules to their own advantage. Codes of conduct were established for the following government policies: anti-dumping rules, subsidies and countervailing measures, government procurement practices, customs valuation, technical standards, and import licensing. Additionally, nontariff barriers were liberalized in two product categories--civil aircraft and several types of agricultural trade, mainly for meat and cheese. Dispute settlement procedures were installed for each of the major codes. After much debate, no agreement was reached on safeguards for domestic industries (the U.S. escape clause). Late-starting negotiations on commercial counterfeiting policy were not concluded.

The Tokyo Round grappled with many of the problems associated with unfair trade practices and other impediments to "trading on a level playing field." Most prominent was the issue of subsidies, especially export subsidies. Almost all governments subsidize domestic producers to some degree. Most domestic subsidies--such as those for education, for assistance to low-income regions of a country, or for research and development--attack internal social and economic problems. Other subsidies explicitly favor exports or domestic producers of import substitutes. As economies become more open

20. For example, if the tariff on a final good is 5 percent, but the tariff on intermediate inputs to the production of that good is zero, then (assuming that intermediate goods make up about 50 percent of the total production cost of the final good) the effective rate of protection for the production of the domestic good is 10 percent. That is, domestic producers can produce--add value to--at up to 10 percent higher costs than foreigners because of the above structure of protection. Note that consumers still pay only 5 percent more for the final good. See W.M. Corden, *The Theory of Protection* (New York: Oxford University Press, 1971), for the classic examination of effective rates of protection.

to foreign trade, the distinction between domestic and foreign trade subsidies becomes increasingly blurred.

The subsidy code clarified and modestly strengthened GATT rules, stated in articles III, VI, XVI, and XXIII, which permit subsidies "for the promotion of social and economic policy objectives," but which discourage those that impinge on trade. The code established criteria to help differentiate between a domestic and an export subsidy. Export subsidies for non-agricultural products were prohibited.^{21/} Almost any domestic subsidy that treats domestic and export activities equally is allowed, but policies that injure foreign producers should be avoided.^{22/}

When export subsidies are found to injure producers in another country, countervailing duties can be applied by the offended country to offset the impact of the subsidy. The code established two criteria--validation of an export subsidy and proof of material injury to a domestic industry--that must be satisfied before countervailing duties can be implemented.^{23/} The size of the countervailing duty cannot exceed the amount of the subsidy. It is not meant to be retaliatory, but only to offset the export subsidy.

The subsidy code extends GATT's prohibition of export subsidies to include not only trade in manufactured goods but also, for the first time, raw material trade. The rules are to be applied fully for trade in minerals. For agricultural trade, export subsidies are tolerated, but should not allow the exporting country to gain "more than an equitable share of world export trade," and subsidized products should not be sold below the going market price.

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21. Subsidized export financing arrangements are not covered by GATT. Such actions by developed countries are covered by agreements of the Organization for Economic Cooperation and Development. Also, input subsidies for downstream export industries, often for natural resources, are not covered by GATT.
 22. Once it is agreed which subsidies are prohibited by GATT, the use of these actions must still be halted. Distinction is made in this debate between prohibiting the use of illegal nontariff trade barriers, and stopping only those illegal practices that cause injury to offended countries. By requiring injury tests, many insignificant cases (especially from small developing countries) can be filtered out of the process so that attention is concentrated on the most onerous actions. By sanctioning petty offenses, however, overall GATT discipline is threatened. For a thorough examination of subsidies in international trade, see Gary Hufbauer and Joanna Shelton Erb, *Subsidies in International Trade* (Washington, D.C.: Institute for International Economics, 1984).
 23. This subsidy code forced the United States to add an injury test for its countervailing duty cases. Injury tests now consider changes in both the quantity and prices of imports and similar domestic products ensuing from the foreign subsidy. The prohibition of export subsidies should have the greatest impact on other countries, which tend to use export subsidies more aggressively than the United States.

The Tokyo Round antidumping code sharpened article VI of the General Agreement by clarifying the standard for determining injury and by establishing an international dispute settlement procedure. The antidumping code, like the subsidies code, allows antidumping duties matching the dumping margin when foreign firms sell their products below normal prices in foreign markets. ^{24/}

The government procurement code requires that firms of other signatory countries be treated no less favorably than domestic firms when governments purchase goods. The equal treatment obligation applies only to those government entities specified in the Agreement, and governments bargained over which entities were to be included. Most importantly, national defense purchases were excluded. Also, procurement should be conducted in an open and transparent way.

Many countries apply technical standards to products before they can be sold. These standards, such as labeling, safety, pollution, and quality requirements, are also applied to imports. The standards code states that governments should apply these standards in a way that does not discriminate against imports.

The customs valuation code dictates that the dutiable value of imports be based in general on their actual transactions prices. This updates obligations spelled out in article VII of the General Agreement (on Valuation for Customs Purposes). One important aspect of this code is that it forced the United States to stop using the American Selling Price technique. The import licensing code makes the process of obtaining import licenses transparent and not overly burdensome.

Codes of Conduct Procedures. In negotiating the codes of conduct for non-tariff barriers, the Tokyo Round also established a set of guidelines for administering them. The codes stress the regulation of specific government policies; they do not provide a framework for actually liberalizing these trade barriers on a product-by-product basis. In this sense they differ fundamentally from the approach used successfully to reduce tariffs. GATT's

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24. The technicalities of determining when firms sell products below normal prices are notoriously complicated. Common definitions of dumping include selling in foreign markets at lower prices than in domestic or third-country markets, or charging prices below production costs. Dumping by exporters from non-market economies, or state-owned enterprises in general, poses special problems, since the relationship between costs and prices is often not known.

tariff reductions emphasized product-by-product liberalization on a reciprocal basis across all products, using rules to reinforce, but not lead, the liberalization process. Implementation of the codes, however, relies mainly on good-faith compliance by the signatories to each code.

When one country questions the good-faith compliance of another country in nontariff issues, the codes set forth dispute settlement procedures to help resolve the differences. These procedures operate along the same principles as those generally available under the provisions of the General Agreement, stressing passive oversight and adjudication of legal issues by panels.

During the Tokyo Round, negotiations on nontariff barriers were separated from the negotiations on tariffs. Separate working groups were established for each nontariff issue, most taking several years to complete their work. Final agreement on each code was based on code reciprocity, a restricted form of conditional most-favored-nation treatment. Under code reciprocity, each country could choose whether to sign the code and agree to abide by the code's discipline. Countries that did not sign a code were sometimes excluded from the benefits of the code, but they were not generally penalized in other parts of the negotiations. Almost all developed countries signed these codes, while most developing countries did not.^{25/}

It is difficult to assess the effectiveness of the codes of conduct, since this depends on changes in policies and government actions that are hard to monitor or quantify.^{26/} The prevailing level of conflict between countries over these nontariff barriers suggests that the codes have not significantly

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25. In order to induce developing countries to sign the various codes, those countries were exempted from the immediate prohibition on export subsidies and from limitations on many other nontariff barriers, including government procurement rules. But these exemptions were contingent on guarantees that such practices would be phased out over time. Most developing countries opted not to sign the codes initially, though many subsequently signed the subsidies code. They signed that code because, since an injury test was not required for the application of countervailing duties to export subsidies of nonsignatories, they were not protected when the United States threatened to place countervailing duties against export subsidies for textile and apparel products, even though most developing country exports were not large enough to cause material injury to the U.S. industry.
 26. See Robert M. Stern, John H. Jackson and Bernard M. Hockman, *An Assessment of the Implementation and Operation of the Tokyo Round Codes*, Thames Essay No. 55 (Aldershot, New York: Gower for the Trade Policy Research Centre) for an assessment of the Tokyo Round Codes.

restrained the use of such barriers. The Tokyo Round codes probably can be best viewed as the beginning stage in a long process of developing common ground, and eventually some discipline, in this area. Most of the codes, especially the subsidies code, will be reassessed in the Uruguay Round.

LOOKING AHEAD: THE URUGUAY ROUND AGENDA

Trade ministers from over 90 countries joined in consensus last September to issue the Punta del Este Declaration, launching the Uruguay Round of trade negotiations. Included in this declaration are a list of agenda items and several negotiating procedure agreements. To a greater degree than in the past, this declaration stresses the need to control better the use of nontariff barriers and to expand GATT discipline to nonmanufacturing products, most importantly to trade in agriculture and services.

Each of the major negotiating groups will approach the Uruguay Round from a different perspective. The United States has been the driving force behind the negotiations, seeking to open foreign markets to its exports and to limit foreign subsidies of imports into its home market. Consequently, the United States has insisted that the agenda include efforts to open agricultural and service markets, protect intellectual property rights, and limit export subsidies. These goals would require major concessions by the European Community, Japan, and many developing countries. For any concession in agriculture, the EC wants equivalent reductions in what it perceives as U.S. farm subsidies. Japan, which has manufacturing trade surpluses with almost every trading partner, has taken a much more defensive stance, attempting to maintain the status quo.

Care was taken in the Punta del Este Declaration to maintain the developing countries' traditional nonreciprocal role. But since many of the issues concern policies frequently used by developing countries, especially newly industrialized countries, those countries are expected to become more involved than they were in past negotiations. Developing countries demand more open access to U.S. markets for natural resources and manufacturing, especially for many labor-intensive products such as apparel and electronics.

The Uruguay Round is expected to be the most difficult of all the rounds. Most nuisance trade barriers (that have little impact on trade flows) in developed countries have been eliminated. Significant trade policy reform now implies changes in national policies that have often been in place for many years and have strong domestic constituencies. The agenda can be separated into three groups of issues: those that have been discussed in previous GATT rounds; those being negotiated for the first time; and issues of concern to developing countries.



Agenda Items With a Negotiation History

The dimensions of problems previously addressed are likely to be reasonably clear early in the negotiations, although the legacy of unresolved conflict presents difficulties. Hope for breakthroughs arises from the burdens that many of these policies impose on governments and consumers. Multilateral reforms, offering reciprocal benefits, may make major domestic policy reforms more palatable.

Barriers to Agricultural Trade. Despite considerable effort, previous rounds have done little to reduce government interference in the production and trade of agricultural products. As described in Chapter IV, import barriers or export subsidies in agricultural trade are often associated with domestic policies to support farm prices and incomes. Thus, any reform in agricultural trade implies changes in those domestic policies. For this reason, the negotiations will focus on the farm policies of the three largest agricultural markets in the free world, the United States, the European Community, and Japan. The United States and the EC, at great expense, subsidize and protect domestic production. All three restrict agricultural imports, most notably Japan. Other exporters, such as Canada and Australia, have relatively open agricultural policies, and complain that GATT does not recognize the rights of agricultural exporters who are seriously affected by the policies of rival exporters such as the United States and the EC.

Barriers to Trade in Tropical and Natural Resource Products. Trade in tropical and natural resource products receives special attention in the GATT negotiations because commodities such as coffee, rubber, tin, and copper make up a large proportion of total exports for many developing countries. Previous rounds have reduced developed-country tariffs on many of these products, but protection remains in some areas, especially for sugar and for commodities in the early processing stages. Developing countries see the elimination of all trade barriers on tropical and natural resource products, both raw and semiprocessed, as essential to their continued development.

Tariff Reductions. While average tariff rates in developed countries have been reduced dramatically in past rounds, they are still significant in a number of sectors, especially when the protective impact of tariff escalation is taken into account. (Table 4 shows the current, post-Tokyo Round average tariff rates by economic sector for the United States, the EC, and Japan.) Moreover, tariff protection in many developing countries is exten-

sive. The major goal of the tariff negotiations will be to reduce tariff rates that are disproportionately higher on final products than on the raw materials used by domestic manufacturers (to harmonize tariff schedules) while continuing to reduce overall tariff rates in developed countries.^{27/} In many cases, major tariff reductions in particular sectors may be addressed in conjunction with efforts to lower nontariff barriers in those sectors. Considerable pressure will be exerted on newly industrialized countries to offer some tariff concessions in return for tariff cuts by developed countries.

Nontariff Barriers to Trade. Some nontariff barriers are relatively straightforward, as in the case of explicit import and export quotas, orderly marketing agreements, and voluntary export restraints. Others--including various financial subsidies, government procurement practices, and export targeting--are often less obvious. By basic GATT principles NTBs are recognized as particularly damaging forms of protection, but GATT has been unable to persuade member governments to discontinue them.^{28/}

At a minimum, the negotiations will attempt to make nontariff barriers more transparent and to hold existing ones at current levels. In some cases, new rules will be devised to regulate such practices. Since many existing NTBs are used to protect certain industries, meaningful reform of these will likely depend on sectoral negotiations and some tradeoff of reciprocal concessions across sectors. On a more technical level, rules may be developed to regulate the use of orderly marketing arrangements and voluntary export restraints, which are currently outside the purview of GATT discipline.

A Code of Conduct for Escape-Clause Procedures. Escape-clause actions, a type of safeguard, allow governments to suspend GATT rules temporarily in order to protect domestic producers from injury resulting from surges in imports. Qualification for escape-clause relief requires proof that a domestic industry has sustained serious injury from increases in imports. No proof of unfair trade practices is needed. GATT rules acknowledge the right of

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27. The negotiations to lower tariffs may be limited until a major effort to harmonize tariff classifications among countries is completed in 1988.
28. For a good survey of nontariff barriers employed by the United States, Canada, and Japan, see Gary Saxonhouse and Robert Stern, "An Analytical Survey of Formal and Informal Barriers to International Trade and Investment in the United States, Canada and Japan," paper presented at the Conference on U.S.-Canadian Trade and Investment Relations with Japan, Ann Arbor, Michigan, April 2-3, 1987.

countries to use the escape clause to justify increases in protection, but offer little guidance on how escape-clause actions should be administered. As a result, escape-clause standards and procedures vary considerably among countries. Many governments--especially those of developing countries--claim that escape-clause actions in developed countries substitute protection for market adjustment, particularly in response to chronic shifts in comparative advantage. Also, the increasing use of such remedies as voluntary export restraints and orderly marketing agreements raises the fear that developed countries will increasingly resort to managed market schemes instead of competition to determine trade flows in key sectoral markets.

During the Tokyo Round, efforts to put together a code of conduct for escape-clause procedures were unsuccessful.^{29/} Standardizing the escape-clause process will require rules for determining when imports are the cause of injury; what constitutes serious injury; what should be the appropriate length and form of the remedy (including whether remedies can be applied selectively to some, but not all importers of a product); whether the domestic industry should be required to make any adjustments; and how such determinations are to be made.

A Reassessment of the Tokyo Round Codes of Conduct. Several of the codes of conduct for nontariff barriers that were instituted during the Tokyo Round will be reassessed during the Uruguay Round. Governments perceive that many of the trade policies that these codes were designed to eliminate have continued unabated. They complain about the vagueness of the rules and the general impotence of the GATT dispute settlement process. Dissatisfaction is most apparent over the subsidies code.^{30/} Part of this frustration is directed at subsidies in sectors that the codes were not intended to affect, most importantly agriculture and services. More funda-

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29. The major stumbling block to an agreement was whether trade policy remedies mandated by safeguard procedures could be applied selectively to some, but not all, exporters of a product. Selectivity violates the GATT principle of most-favored-nation treatment. The EC favored selectivity, but Japan and many developing countries feared that they would be the countries most often selected against. Current United States policy uses some selective remedies. For an overview of current U.S. import procedures, see U.S. International Trade Commission, *Summary of Statutory Provisions Related to Import Relief*, USITC Publication 1972 (Washington, D.C., April 1987).
30. It is this frustration that has led the United States to increasingly use the powers provided by Section 301 of the 1974 Trade Act, which authorizes the President to open negotiations to stop foreign trade barriers to U.S. exports. Section 301 actions generally operate outside of GATT's jurisdiction.

mentally, though, there is disagreement over when permissible domestic subsidies, including government procurement and state-owned enterprise activities, cross over to become detrimental export subsidies and import barriers. ^{31/}

Generally stricter rules for these government actions may resolve some problems, but general rules are not likely to be flexible enough to take account of special conditions in some sectors. To overcome this deficiency, sectoral negotiations may be most productive. Product-by-product negotiations would also offer the potential for tangible concessions negotiated on a reciprocal basis across sectors and countries. ^{32/}

Institutional Strengthening of GATT. The primary role of GATT in the world trading system is to facilitate trade liberalization over time. The rules and principles in the General Agreement represent consensus agreements by members on how governments should carry out trade policy. By most accounts, GATT has been a successful forum for major reductions in tariff protection. The Uruguay Round will debate how GATT can evolve into its next stage--when it can come to grips with nontariff barriers. A strengthening of GATT's role in regulating such trade practices will depend fundamentally on the member countries. To change the present system of passive enforcement into a more aggressive policing of stricter rules would require a significant transfer of power from member countries to GATT. An intermediate position would be for member countries to enact some GATT rules into domestic law.

New Issues

New issues in the Uruguay Round pose many of the same problems as the others, but with the additional burden that the dimensions of these problems

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31. Governments subsidize domestic producers in many ways. Increasingly, though, a broad range of government programs--including educational, manpower, and financial assistance and regulation--affect foreign trade flows. As international competitiveness depends more and more on technological innovation and highly skilled work forces, many infrastructural policies that have been traditionally considered purely domestic matters now are viewed as matters related to international competitiveness. Moreover, consolidated government programs targeted at specific industries can affect competition between countries even where these programs do not explicitly subsidize exports.
 32. See Robert E. Baldwin, "Alternative Liberalization Strategies," Working Paper No. 2045, National Bureau of Economic Research, October 1986, for a more detailed examination of the benefits of product-by-product multilateral negotiations to reduce nontariff barriers.



are not well understood, both because of inadequate data and for lack of clear analysis. In many cases, the parties have not yet formulated detailed positions. Negotiations on some of these issues should be expected to take at least several years.

Barriers to Trade in Services. At the insistence of the United States, barriers to international trade in services will be dealt with for the first time by GATT during the Uruguay Round. Regulating government policies that affect trade in services introduces a number of new problems. Data on service trade flows are inadequate to guide negotiators. Barriers to service trade are closely linked to domestic federal and state regulation in such politically sensitive areas as labor (immigration); investment, finance, and banking; national security; and health and safety rules. Finally, services span such a broad range of economic activities that liberalization can have very uneven effects on different types of services.

Intellectual Property Rights. These rights involve most importantly copyright, patent, and counterfeiting protection for both goods and services. Since intellectual property, such as new technologies or artistic work, is often easy to duplicate, such rights can be protected only by laws.

Among developed countries, a series of agreements exist outside of GATT protecting most intellectual property rights. Efforts will be made during the Uruguay Round to incorporate these arrangements into the GATT framework. Much of the conflict over this issue relates to actions by developing countries, which have resisted such limitations on the ground that they are an unfair deterrent to the transfer of technology.

Investment Restrictions and Trade. Laws restricting foreign investment often affect international trade in goods and services. A firm's ability to compete in a foreign market sometimes hinges on the opportunity to establish subsidiary operations in that market, especially where close buyer-seller relationships are required. National restrictions on foreign investment commonly include: provisions limiting foreign ownership participation or prohibiting the establishment of foreign operations altogether; performance requirements that force subsidiaries to export certain amounts of their output, or to use certain amounts of domestic inputs; and prohibitions on currency conversion. Both developed and developing countries restrict foreign investment. Governments, both bilaterally and in bodies such as the Organization for Economic Cooperation and Development, have negotiated agreements monitoring policies that inhibit foreign investment flows. But such restrictions remain commonplace. Since the Uruguay Round will represent the first GATT-sponsored attempt to deal with investment-related trade issues, much of the initial effort will likely be in cataloging and analyzing the problem, and then developing some common ground for negotiations.

The Uruguay Round and Developing Countries

An important set of issues concerns developing countries, especially the newly industrializing countries (NICs). Although the integration of developing countries into GATT negotiations and discipline is not a formal issue on the agenda for the Uruguay Round, it may prove to be one of its most important contributions. ^{33/}

Special Treatment for Developing Countries. Developing countries generally face constraints on growth that are different from those of developed countries. They may need to develop their economic, social, and political infrastructures concurrently, making them both reliant on and vulnerable to foreign influences. To pay for the financial and physical capital, and the technology, that are vital to the development process, they must earn foreign exchange by exporting commodities and (increasingly) manufactured goods to developed countries. To overcome this foreign exchange constraint, developing countries often seek to stimulate exports and manage imports as an integral component of their development strategies. As a result, they tend to rely more on aggressive trade policies and access to foreign markets than do developed countries. ^{34/}

The General Agreement takes account of these special circumstances by its treatment of developing countries, effectively exempting them from most of the discipline of GATT. ^{35/} Developing countries have not been expected to provide reciprocal concessions for tariff reductions by developed countries, and have not been seriously penalized for government policies that violate GATT rules. Since developed countries have less incentive to reduce trade barriers on products supplied principally by developing

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33. For a good overview of problems facing the United States and developing countries in new trade negotiations, see Ernest Preeg, ed., *Hard Bargaining Ahead: U.S. Trade Policy and Developing Countries* (Washington, D.C.: Overseas Development Council, 1985).
 34. The debt crisis has exacerbated the foreign exchange problem for many developing countries. In order to earn the foreign exchange needed to satisfy debt-servicing requirements, the countries must increase their trade surpluses. The International Monetary Fund has made this a key condition for loans to debtor countries. Trade surpluses can be achieved either by increasing exports or reducing imports, almost always requiring active trade policies. Since imports can be more easily manipulated than exports, many developing countries have been forced to curtail key imports from developed countries. These actions have tended to lower economic growth rates, and they have stimulated domestic production of import substitutes. The debt crisis will thus have shaped future trading patterns between developing and developed countries long after the crisis itself has been resolved.
 35. An entire section dealing with developing countries was added to the General Agreement in 1966. This section, Part IV, laid out the basis for the special treatment of developing countries.

countries if the latter do not respond with reciprocal concessions, the General Agreement included a unilateral commitment by developed countries to reduce trade barriers to imports from developing countries.

Developing countries have played a minor role in previous rounds. They have looked to the United Nations Conference on Trade and Development, rather than GATT, to express their demands for more stability in commodity markets, for preferential treatment of their exports to developed countries, and for improved access to developed-country markets in general. Some developing countries actually fought the tariff reductions achieved by the developed countries during the Tokyo Round on the ground that lower tariffs to everyone eroded the advantages of the Generalized System of Preferences (GSP) that were applied only to imports from developing countries.^{36/} Developing countries see GATT's acceptance of trade restrictions by developed countries on textiles and apparel, and on agricultural products such as sugar, as proof of a bias against developing countries. Consequently, most developing countries have not actively participated in previous rounds, even though this has inhibited their ability to secure tariff reductions for their exports and to influence codes of conduct for nontariff barriers to their benefit.

A New Role for Developing Countries in GATT? Developing countries, led by the newly industrializing countries, are now fully competitive in a broad range of manufactured goods markets and are sometimes the principal suppliers of such goods. They also provide important markets for the developed countries' exports. But not all developing countries have shared in this success. Increasingly, the interests of the poorer developing countries differ from those of the more successful. The latter are being drawn into the GATT system, somewhat against their will, by the force of their success in world trade. The poorer developing countries, on the other hand, still require substantial assistance and special treatment.

In principle, a key task of the Uruguay Round should be to integrate the more successful developing countries into the GATT system. Although

36. Baldwin and Murray estimated that the significant cuts in tariffs achieved during the Tokyo Round, applied on a most-favored-nation basis, provided benefits to developing countries that far outweighed their losses from the erosion of the GSP preference advantage. The authors found, however, that this result held more strongly for newly industrializing countries than for the poorer developing countries, who were rarely restrained by GSP import limitations. See Robert E. Baldwin and Tracy Murray, "MFN Tariff Reductions and Developing Country Trade Benefits Under the GSP," *The Economic Journal*, no. 87 (March 1977), p. 30-46.

the Punta del Este Declaration emphasizes that reciprocity is not required for developing countries, clearly the successful resolution of many of these issues will require some concessions from them. In fact, a number of issues on the agenda--including intellectual property rights, trade in tropical and natural resource products, and various nontariff barriers to trade in goods and services--are predominately conflicts between developed and developing countries as blocs. The first step, then, is for the newly industrializing countries to agree to abide more fully by the basic GATT rules and to enter the Uruguay Round negotiations as peer participants willing to make at least some reciprocal concessions.

Numerous practical problems must be overcome to integrate the more successful developing countries into the GATT system. They must be persuaded to forgo their present privileges as developing countries. It will be necessary to define the point at which a developing country qualifies for the rigor of graduation. Must graduating countries abide immediately by the full force of GATT, or will the rules be applied more leniently to them--possibly in different degree across products or types of policies--with some transitional phase-in period? Should special consideration be provided for those countries that bear particularly vexing foreign debt burdens? Should developing countries be able to shelter infant industries, especially service industries, until they become internationally competitive? How can GATT most effectively target benefits toward the most needy developing countries? Although not all of these issues will be dealt with explicitly in the Uruguay Round, most will arise during negotiations on the many agenda items in which developing countries are important players.



CHAPTER III

HIGH-TECHNOLOGY TRADE

The Uruguay Round is unlikely to see major breakthroughs in high-technology trade, most of which already falls within the scope of GATT. Discussion will focus on reducing the nontariff barriers that hamper trade in this field. U.S. negotiators will emphasize three such barriers: targeting by governments of particular industries for development; restrictions on the access of foreigners to domestic markets; and failure to protect rights to intellectual property such as patents and copyrights.

Targeting is the coordination of government policies to encourage the development of particular industries. This often includes subsidies for research and development, restrictions on government procurement, protection of markets, and restraints on investment. The extent to which governments ought to engage in R&D will require further definition. The European Community's use of substantial R&D subsidies as a development vehicle for its high-technology industries is likely to be a negotiating point.

Restrictions on market access are often used to favor domestic manufacturers of high-technology goods. Technical standards often function as import barriers, as do "buy national" requirements in government procurement. So do laws that restrict investment by requiring a firm to export a certain amount of its output, or to use a certain proportion of local materials. The Uruguay Round will have to strengthen GATT's technical standards and government procurement protocols to resolve these problems. Japan is likely to be pushed to expand access to its markets, while the EC and the United States will be pressed to phase out their restrictions on government procurement.

Intellectual property rights are most often breached by producers in the developing countries, where patent and copyright protection is uneven or nonexistent. A major focus will be on bringing existing intellectual property rights procedures into the GATT and strengthening them.

High-technology manufactures include the following industries, in whole or in part: computers, communications equipment, electronic components, pharmaceuticals, aerospace, and instruments. This list should be considered illustrative rather than exhaustive. ^{1/}

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1. For a detailed discussion of the definition of high technology, see Congressional Budget Office, *Federal Financial Support for High-Technology Industries* (June 1985) and references therein.

High-technology industries tend to be fast-growing and highly productive, qualities that are vital to economic development. Competition in the intensely innovative market environment places a premium on product research and development, as well as on flexible and efficient production techniques. When world markets for high-technology products are expanding, firms from many countries can share in the benefits of large-scale production. When demand slumps, as has been the case recently, the battle for market share intensifies.

CURRENT PROBLEMS IN HIGH-TECHNOLOGY TRADE

The recent deterioration in the trade performance of U.S. high-technology industries has been attributed by many to the policies of foreign governments that seek to aid their industries by stimulating exports or inhibiting imports. U.S. negotiators have made reducing barriers to trade in high-technology products a high priority for the Uruguay Round of negotiations. Unlike trade in agriculture and services, however, high-technology trade does not constitute an easily defined sector. As a consequence, issues related to trade in high-technology products will most likely be addressed under several policy-oriented agenda topics.

Government Policies

Government policies that most critically influence trade in high-technology products can be grouped in three broad categories: the practice of making certain industries the targets of favorable government policies that increase their competitiveness; the creation of nontariff barriers to trade; and the protection of intellectual property rights. Tariffs are not a significant issue in most high-technology product trade, which is already covered by GATT rules for tariffs. But the GATT rules offer weak or in some cases no remedy against targeting and nontariff barriers. In addition, trade in high-technology services, such as computer software services, and the protection of intellectual property rights have never been considered by GATT.

Some countries have entered into international agreements to guide policy in these areas, but there is little consistency overall. Many government policies influencing trade in high-technology products are integrally linked to national development and growth strategies. The underlying question is how far governments can or should go in assisting their strategic industries to become more internationally competitive.

If the Uruguay Round succeeds in strengthening the GATT rules and reducing barriers for high-technology products, U.S. producers should gain on balance. Most important, perhaps, would be the establishment of clear criteria as to what types of government policies are permissible. Given the basic competitiveness of U.S. producers, the United States stands to gain considerably by expanded trade in high-technology products and by better protection of intellectual property rights.

Underlying the entire discussion must be some conception of how new industries are created. Few major industries have arisen in the 20th century without some degree of governmental participation.^{2/} As they develop, moreover, high-technology industries offer so much promise for economic growth that governments can ill afford to ignore them.^{3/} For these reasons, the development of new industries is unlikely to be a private matter in the future. Some balance must be found between the right of every country to participate in growth and the desire of those already in these developing industries to enjoy the benefits of their past investment.

Recent Trends

Although the United States appears to have a comparative advantage in the production of high-technology goods, the trade surpluses that accompany such advantage have declined significantly--from \$27.4 billion in 1980 to \$11.7 billion in 1986 (see Table 5). While this performance is clearly better than that of the overall merchandise balance of trade, which declined nearly sixfold over the same period, it largely reflects the high exports of the aerospace industry. As shown in Table 5, the balance of trade for high-technology industries excluding aircraft and parts was in deficit by \$1 billion in 1986.

The decline in the high-technology trade balance is primarily the result of increased imports: while high-technology exports grew by 40 percent over the 1980 to 1986 period, imports grew by 105 percent. The greatest import penetration has been in computers and office equipment, elec-

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2. See Richard R. Nelson, ed., *Government and Technical Progress: A Cross-Industry Analysis* (New York: Pergamon Press, 1982).
 3. For a discussion of why governments view high-technology industries as central to economic growth, see Congressional Budget Office, *Federal Financial Support for High-Technology Industries* (June 1985), pp. 1-17, and references therein.

TABLE 5. HIGH-TECHNOLOGY BALANCE OF TRADE FOR SELECTED YEARS
(In billions of current dollars)

Industry (Standard Industrial Classification)	1980			1983			1986		
	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance
Drugs (283)	2.0	1.0	1.0	2.6	1.3	1.3	3.1	2.3	0.8
Industrial Organic Chemicals (286)	6.4	2.2	4.2	6.0	2.9	3.1	6.9	4.1	2.8
Computers and Office Equipment (357)	8.7	2.5	6.2	11.7	6.2	5.5	16.1	13.5	2.6
Communications Equipment (366)	2.7	2.5	0.2	3.7	4.5	-0.8	4.3	6.3	-2.0
Electronic Components (367)	6.2	5.3	0.9	7.7	8.0	-0.3	9.2	13.4	-4.2
Aircraft and Parts (372)	14.6	2.7	11.9	14.6	2.6	12.0	18.4	5.7	12.7
Scientific Instruments (380)	<u>7.8</u>	<u>4.8</u>	<u>3.0</u>	<u>8.5</u>	<u>6.1</u>	<u>2.4</u>	<u>9.7</u>	<u>10.7</u>	<u>-1.0</u>
Total	48.4	21.0	27.4	54.8	31.6	23.2	67.8	56.1	11.7

SOURCE: U.S. Department of Commerce, Bureau of the Census.

tronic components, and scientific instruments (SIC 357, 367 and 380, respectively). Imports in these categories, together, rose nearly 300 percent.

If the deterioration of the high-technology trade balance can be partly explained by foreign industrial development policies, most of it seems to be the result of economic factors affecting trade in general. The high-technology balance has not declined as severely as the overall merchandise balance of trade, suggesting that the high value of the dollar and the strength of the U.S. economy should be considered as leading factors. This is not to say that individual trade practices are trivial or should be ignored, but rather to place them in proper perspective.

In recent years, other countries have challenged the virtual monopoly U.S. firms had enjoyed in high-technology markets. At the same time, demand in many of these markets has grown at a slower pace or even contracted. Thus, there are more suppliers than ever in markets that are growing less rapidly than had been expected.

The challengers, while violating many current U.S. sensibilities regarding proper trade policy, see their actions as not essentially different from measures the United States has taken in support of high technology. They ascribe the U.S. lead in this field to its space and military programs. They point out that the federal government has subsidized research and development (R&D) through lucrative defense contracts; that it has guaranteed markets through "Buy America" amendments to procurement legislation; and that on many occasions the government has even provided physical capital to manufacturers of these goods.

The major trade policy issues of concern to the United States in the high-technology areas are well known:

- o Targeting by other governments of industries in which the United States has a technological lead;
- o Restrictions placed on access to overseas markets; and
- o Lack of protection for intellectual property.

These issues have been at the heart of high-technology trade disputes throughout the 1980s. U.S. firms claim that they are excluded from markets abroad, that they are systematically underpriced in the U.S. market, and that their products (which are expensive to research and develop) are copied

by foreign manufacturers without appropriate recompense. Moreover, they believe that although U.S. consumers may reap temporary gains from such foreign practices as targeting or dumping, the long-term interests of the U.S. economy are hurt by them.

The prominence of these issues does not mean that the traditional tariff questions have vanished from the agenda. The European Community's tariffs on semiconductors average over 15 percent. U.S. computer tariffs of 4.6 percent offer some level of support for domestic manufacturing, especially at the lower end of the market. In addition, many developing countries have substantial tariffs on high-technology goods. But much progress has been made. The United States and Japan have agreed to reduce their semiconductor tariffs to zero, ahead of GATT's schedule. Nontariff barriers, however, remain much more significant impediments to trade.

TARGETING

Perhaps no issue in high-technology trade is receiving more attention than targeting--which may be defined as the coordinated attempt by a government to direct productive resources to selected domestic industries so as to make the industry more competitive internationally.^{4/} The intent of the government is paramount, since it is the coordination of many policies that gives targeting its reputed power. Targeting policies have many components. They may include any or all of the following: a protected market; preferential financing; subsidies of various kinds; tax benefits; investment restraints to keep foreigners out; government coordination of R&D; and special treatment of intellectual property rights. The protected market need not include the entire country, although it often does; it may be limited to government procurement, if that constitutes a large fraction of the market. Often preferential financing is available to the targeted industries, although it may be difficult to distinguish targeting from conventional economic development policies. Since high-technology industries characteristically require large R&D investments, assistance in financing R&D is of great benefit. Efforts to break into world markets are costly because the industry is rarely initially competitive and suffers substantial losses. For this reason, governments are often moved to subsidize it, as the European Community has with Airbus. Consumers of high-technology goods may be given tax benefits: for instance, in Japan

4. See International Trade Commission, *Foreign Industrial Targeting and Its Effects on U.S. Industries; Phase I: Japan* (October 1983), p. 17.

purchasers of robots can depreciate them rapidly. Investment restraints may be used to keep foreigners out entirely, as was the case with the Japanese semiconductor industry, or to make them junior partners with domestic capital. Governments often intervene and coordinate decision-making to prevent costly duplication of R&D. This may or may not entail cartelizing the domestic market: Japan has been characterized by government coordination followed by brutal domestic competition. When it is necessary to obtain the requisite technology from abroad, laws or government practices that abrogate or reduce foreign intellectual-property rights (for example, by limiting licensing fees) may be part of the targeting effort.

Brazil's Informatics law provides a clear example of coordination of government policies for the benefit of a chosen industry--in this case, the small and mid-sized computer industry. The Brazilian Informatics strategy has four components. First, it imposes very stringent investment regulations. For example, 70 percent of the ownership and 100 percent of the voting power must be local. Second, the government will deny import licenses to foreign firms producing goods that can be produced locally. In essence, this policy grants local monopolies to Brazilian companies often still in their technological infancy. Third, the foreign access to the administration of this law has thus far been limited. For instance, U.S. companies have complained of unexplained overnight changes in policy that make planning impossible. Fourth, the Brazilian government has placed restrictions on intellectual property rights: software is currently not covered by copyright and the proposed software law has severe deficiencies; other regulations that apply to foreign technology limit both the payments for and the protection of intellectual property.

Japanese Targeting

Some observers of Japan have argued that Japanese targeting is a misunderstood phenomenon. In essence, they say, the government of Japan is trying to use its Ministry of International Trade and Industry (MITI) to compensate for the lack of institutional flexibility enjoyed by U.S. firms. Most Japanese high-technology companies obtain their financing from banks and government finance agencies, which tend to be very conservative, rather than from the equity market. In the United States, when a new technology appears, venture capitalists compete with each other to turn the technology into new products, signaling to the rest of the economy that this is an area of potential rewards. MITI plays an equivalent role in Japan, signaling to bankers and corporations through its "visions," as its plans are called, that it favors certain investments. However, for the most part, U.S.

venture capitalists are quicker in responding than are the MITI bureaucrats. In fact, there is some indication that MITI follows the movements of U.S. venture capitalists as guides for investment strategy. ^{5/}

The cooperative R&D projects sponsored by MITI--the VLSI project earlier, and now the Fifth Generation Project--are similarly misperceived, according to this view. The Japanese educational system, combined with lifetime employment guarantees, produces researchers who are not as well-rounded in their technical background as U.S. personnel in comparable positions. Their primary loyalty is to the firm, not the profession; the movement of personnel among firms, and the informal exchanges that are typical among employees in U.S. high-technology firms, do not occur in Japan. Technological cross-pollination has been central to U.S. advance. In order to imitate it, MITI has encouraged firms to participate in cooperative research programs. ^{6/}

Another aspect of Japanese targeting that has often been misperceived, according to this view, involves the cost of capital. Targeted sectors are thought to have access to cheap capital, giving them an advantage over foreign firms. But most of the funds available to targeted industries have been available to all major industries; special government funds for targeted industries tend to be small by U.S. standards. The reason for lower capital costs in Japan is that the old system of capital controls gave Japanese households very little choice in deciding what to do with their savings. The result has been a massive transfer of income from households to the corporate sector as a whole rather than to specific industries.

Governmental subsidies to Japanese industry, either through credit or through the tax system, have been relatively small. In both Europe and the United States, subsidy programs are much larger. Moreover, the larger Japanese subsidies go to declining industries. Even in the targeted high-technology industries, the subsidies have often been directed at products

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5. This discussion is largely taken from Gary Saxonhouse, "What is All This About 'Industrial Targeting' in Japan," *World Economy* (September 1983), pp. 253-273. See also Gary Saxonhouse, "The Micro- and Macroeconomics of Foreign Sales to Japan," in William R. Cline, ed., *Trade Policy in the 1980s* (Washington, D.C.: Institute for International Economics, 1983), pp. 259-304.
 6. Despite the "success" of Japanese research cooperatives, the evidence for extensive firm participation is not substantial. Japanese firms that participate in government-sponsored research cooperatives can depreciate assets used in this research in one year. In 1982 the cost of this provision of Japanese tax law was only \$17 million, suggesting minimal participation. See Saxonhouse, p. 266.

rather than firms. For instance, special depreciation provisions are allowed for purchases of industrial robots--even if the robot purchased is not of Japanese origin.^{7/}

The principal function of Japanese targeting has been to prevent foreign access to a market until the domestic industry reached the point at which it no longer needed this level of protection. Even here, however, the role of the government should not be overstated. The Japanese government rarely erects formal barriers to trade anymore; its tariff rates on high-technology goods are as low as or lower than those of the United States (see Chapter II), and formal quotas have been abolished in these goods. Whether because of the homogeneous culture or as a result of years of strict government regulation, foreign firms seem to have great difficulty breaking into Japanese markets. Considering the high degree of interfirm competition in Japanese high-technology industries, collusive behavior seems unlikely even though it has been widely reported. Most recently, a MITI official reportedly admitted that efforts to develop a domestic supercomputer industry meant that U.S. companies, which now dominate the world industry, would no longer find buyers in Japan. The report has since been denied, and the official has stated that he merely said U.S. supercomputer companies "need to change their respective philosophies and policies" to compete in Japan.^{8/} Subsequently, the government of Japan submitted a plan to the Diet for increasing imports, involving the procurement of \$1.0 billion worth of foreign goods--including supercomputers and aircraft--mainly during fiscal year 1987.^{9/} Whether this is merely a gesture to diffuse trade frictions or a serious effort to liberalize procurement policy remains to be seen.

Private actors also seem to behave in a discriminatory manner. U.S. semiconductor manufacturers report that their markets dry up as soon as Japanese equivalents to their chips become available. The U.S. independent producers' share of the Japanese semiconductor market has been remarkably constant at around 10 percent--which, given the changing

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7. International Trade Commission, *Foreign Industrial Targeting and its Effects on U.S. Industries, Phase I: Japan* (October 1983), p. 9.
 8. Makoto Kuroda, in a letter to the editor of the *Washington Post*, May 23, 1987, p. A21. For the text of the State Department cable on the Japanese official's comments, see the *Washington Post*, April 28, 1987, p. C2.
 9. Sally Solo, "Japan Economic Package Seen Raising Imports \$5B," *Electronics News*, June 1, 1987, p. 4.

relative positions of the Japanese and U.S. industries, seems more the result of a compact than of the working of free trade. ^{10/}

A final misconception about Japanese targeting is that it always succeeds. Non-Japanese observers who often complain about the ineptness of their own government's policies attribute almost superhuman economic powers to Japan, and especially to MITI. The government of Japan has subsidized the aircraft industry for years, but Japan has not yet become a major force in that industry, although it is becoming important in subcontracting. ^{11/} On the other hand, the Japanese aircraft industry has been treated differently than other targeted industries in that it is prohibited from exporting many products and has to face competition from firms with protected markets of their own. MITI's failures are best seen in more mature industries such as aluminum, petrochemicals, and shipbuilding. Similarly, many of the Japanese successes in automobiles have come about because their automakers ignored MITI's guidance.

R&D Subsidies

Subsidies for research and development have become an issue in high-technology trade mainly because they are widely used by countries in targeting one or another high-technology industry for preferential development. Whether R&D subsidies are viewed as legitimate depends on the context in which they occur. Most economists (and industry observers) believe that a government has to step in to encourage R&D, especially at the basic level, because if left to its own devices the market is not likely to devote sufficient resources to R&D. ^{12/} Because other firms can imitate the inventing firm and capture a share of the market and the profits, the benefits from an invention to the inventing firm may be less than the benefits to society as a whole. Consequently firms devote less resources to

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10. The relative shares of Japanese and U.S. semiconductor companies in each country's market is a matter of some contention. Most U.S. industry estimates overstate the Japanese share in the U.S. market by excluding IBM and other companies that produce for internal use. Similarly, they understate the U.S. presence in Japan. See Semiconductor Industry Association, *Japanese Market Barriers in Microelectronics* (June 14, 1985).
 11. International Trade Commission, *Foreign Industrial Targeting, and its Effects on U.S. Industry, Phase I: Japan* (October 1983), pp. 126 and 155-163; Aerospace Industries Association of America, *Aerospace Facts and Figures, 1986-1987*, p. 132.
 12. See Congressional Budget Office, *Federal Financial Support for High-Technology Industries* (June 1985), pp. 1-3.

inventive activity than the good of society may suggest. The mere act of supporting R&D is not seen as an illegitimate government activity. But the extent to which governments ought to do this, especially when there are international repercussions, is a matter yet to be settled.

Much depends on the kinds of R&D being performed and on how the results are disseminated. Money spent on basic research, or even on generic industrial research, has broad applicability and represents less of a threat to the high-technology industries of competing nations than does an effort to develop a specific high-technology product for export. Similarly, if research results are widely available, questions regarding the propriety of the research effort are less likely to be raised. ^{13/}

Many governments pursue massive R&D subsidy programs in an effort to develop high-technology industries. European countries have joined to support first the Concorde, then Airbus, and now Esprit and Eureka (European Community programs on information technology and on advanced technologies in general); hundreds of millions, if not billions, of dollars have gone into each effort. South Korea is spending hundred of millions to develop a semiconductor industry. Taiwan is also making efforts on behalf of its electronic industries. By contrast, Japanese subsidies are small: the government has concentrated on providing seed money to involve private actors, but the sums have not been large compared with those spent by other countries. In fact, more funds have gone to declining industries and agriculture than to high-technology R&D.

U.S. government agencies also fund large amounts of research for military and other purposes, and this has some relevance for high-technology markets. A recent CBO analysis found that, in 1983, federal agencies spent \$8.4 billion on programs to enhance productive capabilities in high-technology industries--not including the large expenditures by the Department of Defense (DoD) and the National Aeronautics and Space Administration (NASA) on R&D for goods being purchased for agency use, such as weapons research, which would obviously add tens of billions to this total. ^{14/} The

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13. The U.S. government has recently begun to move away from giving free access to federally generated technology. The Administration concluded that the reason federal patents were licensed less often than privately generated patents was that the lack of exclusive rights gave private actors no incentive to invest in commercializing federal technology. In response, the Congress passed the Technology Transfer Act of 1986, which permits exclusive licensing under some circumstances.
 14. Congressional Budget Office, *Federal Financial Support for High-Technology Industries* (June 1985), p. 31. See subsequent pages in that work for a discussion of the nature and successes of these programs.

purchase of high-technology equipment for the defense and space programs is not done to aid high-technology exports. The government will have to continue funding such research in order to accomplish its military and space missions. At the same time, however, it must be recognized that technological advances are often stimulated by military and space spending. In fact, Japan and the European Community often point to the large amount of U.S. military and space R&D spending in defense of their own programs, which are much smaller. In material describing their R&D programs, they often mention the DoD and NASA as standards to emulate.

Since targeting depends on government intentions, rather than on the amounts spent, any discussion of it must focus on the tactics used by governments to target: nontariff barriers, export subsidies, restrictions on intellectual property rights, and the like. Simply stated, GATT cannot legislate intentions; it can, however, proscribe actions. Although the Uruguay Round is unlikely to produce a protocol on targeting per se, the issue will underlie many specific negotiations--particularly negotiations on strengthening the Tokyo Round codes on subsidies and government procurement and negotiations on intellectual property rights.

ACCESS TO MARKETS

The very nature of high-technology goods often makes trade in them prone to disruption by governments anxious to exclude such imports from the national market. First, a large part of demand is from governments or government-controlled entities, such as the national telephone and telegraph systems, national airlines, defense ministries, and health systems. Second, because many of the products are new, standards of health, safety, and performance may not have been fully developed, and this provides another means of excluding them.

Government Procurement

Broadening the scope and enforcement of GATT's government procurement code, and liberalizing government procurement in general, are of special importance to U.S. high-technology industries. As noted above, governments and government-controlled entities covered by the procurement code buy a disproportionate amount of high-technology equipment, most importantly for their telecommunications systems. On the one hand, the Administration and concerned U.S. firms have been pressing for open pro-

curement processes. On the other hand, exclusive contracts are seen by many industrialized countries as a means of encouraging development of their own high-technology industries, and they may be loathe to relinquish this device.

Another weakness in the U.S. bargaining position on this issue is that U.S. adherence to the covenant has been mixed. Although in passing the Trade Agreements Act of 1979 the Congress implemented the agreement on government procurement and the other protocols negotiated during the Tokyo Round, the United States continues to exclude foreign firms from participating in many government procurement contracts. The code calls for most-favored-nation treatment in this sphere--that is, it requires signatory governments, in making procurement decisions, to grant products originating in any other signatory country treatment no less favorable than that afforded to domestic products or to the products of any other country. The whole procurement process, including the drawing up of specifications, was to become more open. Only military arms purchases and contracts of small amount are exempt from these requirements.^{15/} Despite these requirements, the Congress has on several occasions passed laws restricting procurement contracts for such items as highway and mass transit construction materials to U.S. firms. Public works bills since 1979 have also contained Buy America clauses.^{16/}

At first glance U.S. firms may seem to have more to gain from the procurement agreement than those of other countries, but if the treatment of weapons procurement changes radically, U.S. firms may find themselves challenged in the profitable U.S. military markets for the first time. Currently, exempted weapons procurement plays a large part in U.S. government procurement; of the \$99.6 billion the federal government spent on goods of all sorts in 1985, \$66.8 billion was spent on the acquisition of military equipment.^{17/} Thus two-thirds of U.S. government purchases are exempt from the GATT procurement code. If the next round of talks continues to exempt military equipment, U.S. firms stand to gain. Other nations want to remove this exclusion, however.

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15. Congressional Budget Office, *The Effects of the Tokyo Round of Multilateral Trade Negotiations on the U.S. Economy: An Updated View* (July 1979), p.26.
 16. For a list of recent Congressionally-imposed restrictions on government procurement, see Raymond Ahearn and Alfred Reifman, "Trade Policymaking in the Congress," in Robert Baldwin, ed., *Recent Issues and Initiatives in U.S. Trade Policy* (Cambridge, Mass: National Bureau of Economic Research, 1984), pp. 47-49.
 17. An additional \$13.4 billion was spent on structures.



Change, when it comes, should favor U.S. exporters. In 1984, the European Community spent roughly \$10 billion on telephone equipment, and U.S. exports accounted for only \$120 million of this.^{18/} The relatively low sales of U.S. equipment reflect the fact that government procurement regulations tend to dominate these purchase decisions in the EC. Deregulation is reducing the level of government involvement in telecommunications, but progress will be slow. Moreover, the government of West Germany, which controls the largest single market in the EC, is in no hurry to deregulate its telephone system.

Some large U.S. firms are already participating heavily in the EC market, through subsidiaries. The German subsidiaries of U.S. companies produce roughly 20 percent of the equipment for the German telephone monopoly (Deutsche Bundespost). But this limits U.S. participation in the EC market to firms old enough or large enough to have foreign subsidiaries. Many of the relatively small or new telecommunications equipment manufacturers may find themselves excluded from these markets.

Technical Standards

The Tokyo Round also produced a technical standards code, which, much like the government procurement code, obligates signatories not to use technical standards as barriers to trade and to make those standards (and the processes establishing and applying them) more accessible. Technical standards are used most often to impede imports in the pharmaceutical and the telecommunications equipment industries.^{19/} Some countries have standards that are incompatible with those used by others; in France, for example, the standard for color television is different from that used elsewhere and has permitted the development of a national industry. In other instances, standards are also often set so that their noncritical parameters favor local producers. Exterior dimensions may be used in this way. For instance, West German health standards sometimes specify lengths of electronic keyboards, which do not correspond to lengths used internationally.

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18. The U.S. export figure is slightly understated in that it does not include ground station or microwave equipment.
 19. For a more complete discussion of the use of technical standards in restraint of trade, see Robert Cohen, Richard Ferguson, and Michael Oppenheimer, *Nontariff Barriers to High-Technology Trade* (Boulder, Colo.: Westview Press, 1985), pp. 23-31.

Enforcement procedures also impede high-technology imports. First, if technical standards are not compiled in a readily accessible manner, the time and cost of learning them may discourage companies from attempting to penetrate the market. Second, the standards may be more stringently enforced on imports than on domestic products. Third, obstacles may be placed in the way of a company seeking technical certification--for example, by requiring it to repeat all its testing within the importing country. In the case of drugs, where tests take years, this requirement can be prohibitive. Also, repeating tests discriminates against small firms, which can less easily bear the costs. In some cases, companies have been required to show that each batch of products meets the technical standards, rather than doing the tests once and then certifying that subsequent production is according to specification.

Other Market Barriers

Two other nontariff barriers are used by governments to restrict access to high-technology markets: import licenses and performance requirements.^{20/} Import licenses are used throughout the developing world for a wide variety of purposes: restricting imports of luxury goods, conserving foreign currency reserves, and protecting or encouraging local industries.

Performance requirements are not directed against importers per se, but are imposed on firms that want to invest in a country. They stipulate things the entrant must do in order to be allowed to set up shop, such as exporting a certain amount of its output or using a certain proportion of local materials.

INTELLECTUAL PROPERTY RIGHTS

Intellectual property rights are of great concern to high-technology industries. The United States is laboratory to the world, and high-technology industries perform a large fraction of this task. The major areas of concern are product and process patents (including extending such coverage to pharmaceuticals and biotechnology), copyrights (especially for computer software), and trademark law.

20. Intellectual property rights may also be used to limit access; they are discussed in the following section.

U.S. companies have suffered disproportionately from the lack of rigorous and uniform international standards for intellectual property rights. Foreign manufacturers have been able to mimic a wide range of U.S. name-brand goods, and even invade the U.S. market with them. In some countries, manufacturers licensed to provide U.S. products for the local market--for example, pharmaceuticals--export them to the U.S. market at lower prices. Because they do not have to recapture R&D or marketing costs, these producers can sell them to U.S. consumers as generic drugs at a fraction of the prices charged by name-brand producers.^{21/} The U.S. International Trade Commission estimates that infringement of intellectual property worldwide cost \$8 billion to \$20 billion in lost U.S. sales.^{22/}

The less-developed world takes a different view of the issue, however, and even among industrialized countries there have been differences of opinion. Developing countries view weak intellectual property right laws as a vehicle for technology transfer. They argue that even major technological developments are properly viewed as elaborations of past contributions, which are the property of society as a whole. They do not assign as much weight to individual contributions as do industrialized countries. Moreover, they do not have a great deal of intellectual property to lose. They note that when the United States was a developing country, it did not recognize other countries' copyright restrictions. Only at the beginning of this century, when it had become one of the major industrial powers, did it agree to abide by other countries' copyrights. Furthermore, the United States still does not adhere to the Berne Convention, the major international institution regulating intellectual property rights, in part because the convention gives authors too much control over their works.^{23/}

A recent bureaucratic struggle in Japan illustrates some of the frictions within the industrialized world regarding intellectual property rights, and the fragility of even the current level of protection. MITI wanted to change the treatment accorded computer software from straightforward copyright to a hybrid form of protection that would be administered by

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21. Of course, many generic drugs are not produced this way, but are simply standard chemical compounds sold at low markups.
 22. International Trade Commission, *The Effects of Foreign Product Counterfeiting on U.S. Industry* (January 1984), p. xiv.
 23. Recently the Administration has signaled its intent to join Berne. See *Report of the President's Commission on Industrial Competitiveness*, Appendix D. A Special Report on the Protection of Intellectual Property Rights (December 1984), p. 335.

MITI. This would have substantially lowered the current standard of protection, and would also have given MITI the authority to require compulsory licensing should it deem this in the national interest. Fortunately for U.S. computer software companies, the Ministry of Education was successful in its attempts to retain control of the copyrighting function.

The problems faced by U.S. high-technology firms in the newly industrializing countries are legion. Mexico and Brazil limit process patents on some industrial processes. In South Korea and Taiwan, patent law does not cover chemicals or pharmaceuticals. Further, in South Korea, computer software cannot yet be copyrighted, although such a law is currently being negotiated with the United States. In most of these countries, new technologies, such as biotechnology and satellite communications, are not covered by law.

A related issue, that of counterfeiting, is much less divisive than the conflicts over patents and copyrights. While not all governments are willing or able to devote a lot of resources to combating counterfeiting, many recognize that it should not be tolerated. Patent and copyright policies, on the other hand, involve more complex trade-offs between development needs and individual rights. The Administration has been trying through bilateral negotiations to encourage countries with the most active counterfeiting industries to put a stop to them. Its biggest success has been the recent anticounterfeiting law in Taiwan, the country that has led in the unauthorized duplication of U.S. goods. Whether enforcement of the law will be satisfactory to U.S. interests remains to be seen.

BARGAINING POSITIONS IN THE URUGUAY ROUND

While the United States imports high-technology goods from or exports them to virtually every other nation, this trade is predominantly with Western Europe, Japan, and some newly industrializing countries. Japan heads the list in most categories, both as buyer and seller. In many cases, however, the most vexing trade problems are not with major trading partners but with developing countries, especially in issues of intellectual property rights.

Japan

Japan is second to Canada as an importer of U.S. high-technology goods, even though it maintains a net export surplus in them. In 1985, it bought \$5.1 billion worth of U.S. high-technology goods and sold \$12 billion worth of its own high-technology goods to the United States.



Japan's position as a high-technology exporter is likely to make it a reluctant participant in the expansion of GATT in some of these areas. By and large, it has benefited from the practices that are of concern to the United States: Japanese targeting of high-technology industries has often, though not always, proved successful; and its high-technology industries benefit from nontariff barriers. On the other hand, given their drive to improve their software industry, and their success in biotechnology, the Japanese may have acquired an interest in protecting intellectual property rights that they did not display during the Tokyo Round.

Recent U.S. experience in negotiating the semiconductor accord with Japan illustrates the difficulty GATT may face in breaking new ground on targeting and NTBs. Japanese penetration of the U.S. semiconductor memory market led several U.S. semiconductor manufacturers and the U.S. government to begin antidumping proceedings against the Japanese semiconductor exporters. Faced with threats of antidumping duties, the Japanese government finally agreed to have Japanese companies sell semiconductor memories at "fair market value" both in the United States and in third markets, and to encourage domestic consumers to buy semiconductors from U.S.-based companies so as to increase the U.S. share of the Japanese market. Japanese companies complied with the provisions forbidding dumping in the United States (the aspect of the agreement the U.S. government could most easily enforce), but as of March 1987, MITI had been unable or unwilling to make them sell at similar prices in third markets or to open the domestic market further to U.S. companies. Consequently the U.S. government imposed duties on several dozen Japanese imports. The Japanese responded with concern, and trade relations deteriorated. Considering the leverage the U.S. government had over Japan in this case, the portents for GATT are not favorable.

It is of interest that the U.S.-Japan semiconductor accord has been challenged by the EC under GATT. The EC argues that the accord cartelizes the world semiconductor market. (Between them, the United States and Japan produce upward of 75 percent of world semiconductor output.) The EC also claims that the accord gives U.S. semiconductors preference in the Japanese market. This challenge shows how unsatisfactory bilateral solutions can be; no matter how well they may address immediate problems, they ignore far-reaching multilateral implications.

Recently the Japanese government has made clear its intention to move into two new high-technology areas--communications satellites and jet fighters. If past experience is any guide, substantial Japanese technological success in these areas may be followed by the disappearance of the

Japanese market for U.S. satellites and jet fighters. In some sense, the ability of GATT to open the Japanese market to foreign high-technology goods will be the touchstone of its ability to broaden access to markets; without success in this case, any other GATT initiative will have missed the central issue.

Newly Industrializing Countries

It is difficult to generalize about trade relations with a group as heterogeneous as the newly industrializing countries (defined for the purposes of this discussion to include Mexico, Brazil, South Korea, Taiwan, Hong Kong, and Singapore). In 1985, the United States had a \$5 billion high-technology trade deficit with these seven countries. To a large extent, this trade imbalance results from the small internal markets in these countries. Very often U.S. exports to these countries are goods undergoing production, to be reexported to the United States or some other country for finishing and sale. The level of U.S. exports to these countries is also limited because of the international debts owed by Mexico and Brazil, which are obliged to restrict imports as part of the austerity measures imposed on them by the international banking community, with the consent of U.S. authorities. Nevertheless, these countries employ a wide range of government policies to manipulate high-technology trade, including nontariff barriers and the limited protection given intellectual property rights.

Developing countries have varying reasons for keeping imports out. Some, in their efforts to imitate the Japanese industrial success, are beginning to target specific industries as "strategic" to their economic development. Among other techniques, they use nontariff barriers to restrict imports so as to guarantee the targeted industry a market for its output. Other countries employ the older import substitution strategy, which also requires keeping foreign products out for the sake of industrial development. In other cases, imports are kept out as part of austerity programs designed to help relieve foreign debt problems. Whatever their reasons, a large number of these countries have nontariff barriers: according to one survey, 59 percent of upper-middle-income developing countries have government import controls on all or a large number of products. ^{24/}

24. J.M. Finger and Andrzej Olechowski, "Trade Barriers: Who Does What to Whom" (June 1986, processed).



Many newly industrializing countries use investment restraints that systematically discriminate against foreign investors. These restraints can range from a total ban on direct foreign investment in certain industries to local majority ownership requirements. There may also be local content regulations, export requirements, and/or restrictions on repatriation of profits. To a large extent, these regulations stem from the belief that foreign investors often did not act in the best interests of the host nation. They are seen as using transfer pricing, foreign sourcing of inputs, and profiteering to extract wealth without delivering economic development in return. ^{25/}

The United States and other industrialized countries have proposed that discussion of investment restraints be included in the Uruguay Round. The U.S. position has been considerably weakened by its recent response to Fujitsu's attempted purchase of the Fairchild Semiconductor company. Although the Administration took no action, its very publicized deliberations caused Fujitsu to withdraw the offer.

Efforts to eliminate nontariff barriers within the GATT framework will encounter resistance for the reasons mentioned above. A more effective approach might be within a bilateral context of mutual concessions and progressive liberalization. Governments may be more willing to lower their barriers to U.S. imports selectively than they would be to lower barriers to all imports if the latter course meant being flooded by imports from Japan, with which many of these countries already have trade deficits. For instance, Taiwan already gives preferences in import licenses to U.S. goods over Japanese goods. Since U.S. high technology imports from this area exceed U.S. exports to the region, bilateral reduction would be in the U.S. interest. But bilateral arrangements would mean moving away from the most-favored-nation system of trading, which has historically been a principle of U.S. trade policy.

Another major issue facing the newly industrializing countries is whether they are ready for graduation from their special status in GATT. Their favorable high-technology trade balance has come from trade with the industrialized world, where they enjoy some benefit from the generalized system of preferences. ^{26/} While U.S. pressure is forcing individual coun-

25. Whether or not these allegations are true is not completely relevant, since they are perceived as true in much of the underdeveloped world and, to that extent, influence the policies of the governments.

26. See Chapter II for a fuller discussion.

tries to bring their conduct into line with the practices of industrialized nations, these efforts are on a country-by-country, issue-by-issue, sometimes industry-by-industry basis. It is not in the U.S. interest to exhaust its good will (and trade staff) in negotiating on a piecemeal basis; consequently, the United States and other industrialized countries may press this issue with the newly industrializing countries. It will not be easy for those countries to make such a change. In many cases their current industrial policies are part of complex domestic political compromises and represent their only perceived avenue of growth.

The European Community

Substantial expansion of the GATT into the area of subsidies, government procurement, and other nontariff barriers would present a major challenge to the EC's high-technology programs. The Europeans view themselves as falling behind the United States and Japan in the race for new markets. Like Japan and the United States, the EC has a highly trained work force of engineers and technicians, and the research infrastructure needed by these industries. The Europeans feel that their competitors have enjoyed special advantages--the United States from its massive military and space effort, and Japan from its protected domestic market. While the EC has imposed restrictions of its own on high-technology trade, it has allowed U.S. high-technology firms to operate freely there. To keep from falling farther behind, the Europeans feel they need to imitate U.S. development policy and provide additional government stimulus for technological development.

To this end, the EC has embarked upon communitywide research programs rather than continue national subsidization of splintered industries and markets. These programs include Airbus, the European Space Agency, the European Strategic Program for Research into Technology (ESPRIT), and the European Research Coordinating Agency (EUREKA). These programs enjoy a substantial degree of government subsidy and direction. The French and British governments have already approved \$1.7 billion for development of the next generation of Airbus. As of the end of May 1987, the West German government was considering adding another \$1 billion to that figure.^{27/} ESPRIT alone is projected to cost the 10 member governments \$650 million over the next 10 years.^{28/} The vast majority of the Com-

^{27/} Steven Greenhouse, "Airbus Offensive Threat," *New York Times*, May 28, 1987.

^{28/} Pierre-Henri Laurent, "Renaissance Through Technology: The European Community Decision on ESPRIT," *Fletcher Forum* (Winter 1985), p. 159.



munity's R&D funds, however, are still allocated at the national level.^{29/} Even here, however, member countries are moving away from the traditional "technology push" strategy of flagship electronic companies and protected national telecommunications markets.^{30/} In some sense, the EC could be said to be moving away from individual protected markets and subsidized industries--which are not in the spirit of GATT--to regionally protected markets and subsidized industries, which are also not in the spirit of GATT.

The United States

While the United States has been in the forefront of the drive to expand GATT into new high-technology areas, it is likely to encounter problems of its own from such an expansion--principally with respect to government procurement and subsidies for R&D. In addition, as the U.S.-Japan semiconductor accord illustrates, U.S. impatience with the GATT may lead it into agreements that are themselves violations of the GATT.

In the United States, the "buy national" restrictions on federal procurement have been extended to goods far beyond the purlieu of national defense. Removing such restrictions on government purchases of nonmilitary goods both here and abroad should be in the interest of U.S. high-technology firms; they would gain in sales to foreign markets, while the losses in domestic markets would be suffered mainly by mature industries. In this sense, the choice facing the Congress is whether it wants to protect domestic textile, steel, and cement markets at the cost of foreign telecommunications equipment and aerospace markets. Government procurement of structures and nonmilitary equipment is on the order of \$50 billion per year, much of it covered by "buy national" clauses. Such a large market would indeed tempt foreign competition.

If a GATT government procurement code was extended to military equipment, at either the prime contractor or subcontractor level, the trade-off would be more difficult. The military has already expressed concern about foreign-sourced electronic components. Any move to increase foreign sourcing would exacerbate this concern.

29. Klaus W. Grewlich, "EUREKA- eureka?" *Aussenpolitik* (1986), p. 27.

30. A.N. Duff, "EUREKA and the New Technology Policy of the European Community," *Policy Studies* (April 1986), p. 45.

U.S. government expenditures on defense and space R&D and procurement are often viewed by other governments as targeting exercises. The Department of Defense has been present at the creation of entire industries. In semiconductors, for example, federal agencies paid for most of the early R&D, trained a substantial part of the work force, bought the entire output, and occasionally provided the physical capital.³¹ Even now, the federal government is taking a series of actions--in response to perceived Japanese targeting--that could easily be described as targeting the U.S. semiconductor industry. The semiconductor accord guarantees a certain domestic floor price and some access to the Japanese market. A proposal exists, and is likely to be funded, that would form a government-subsidized consortium with the expressed purpose of coordinating private efforts to enhance the commercial manufacturing technology of the industry. Federal agencies continue to provide hundreds of millions of dollars for semiconductor research annually. Federal agencies have opposed foreign investment in the U.S. semiconductor industry. In addition, the Department of Defense is investigating ways to reduce use of foreign semiconductors in government-procured weapon systems.

Both relatively and absolutely, the U.S. government spends more on R&D in high-technology industries than any other industrialized country. Efforts to extend the GATT subsidy code to R&D are bound to run afoul of the government's current effort to enhance the commercial usefulness of federal research.

In the area of intellectual property rights, some European Community members have notified the GATT that they consider Section 337 of the U.S. Tariff Act of 1930 to be a trade barrier. Section 337 gives the federal government the authority to restrict imports that infringe on U.S. copyrights or patents if such imports harm a domestic industry. The EC's complaint is that if a U.S. firm violates a patent or copyright, it can be sued; whereas if a foreign firm is believed to be violating a patent or copyright it can be sued and also charged with a Section 337 violation, concurrently or sequentially. This double jeopardy is felt to discriminate against imports.

IMPLICATIONS OF LIBERALIZED TRADE

The Uruguay Round does not aim to produce major breakthroughs in the treatment of high-technology trade. As noted above, the bulk of high-tech-

31. Philip Webre, "Technological Progress and Productivity Growth in the U.S. Semiconductor Industry" (Ph.D. dissertation, American University, 1983), pp. 93-111.



nology trade is already covered by GATT. The hope, rather, is to reduce some of the frictions that beset trade in this field. If the negotiations were to reduce the nontariff barriers the way previous rounds reduced tariffs, they would greatly improve the international climate for high-technology trade. On the other hand, since U.S. high-technology companies already have some access to all major markets for their goods, even the most favorable outcome that can be realistically foreseen would bring only a marginal improvement in the high-technology balance of trade. A substantial opening of Japanese high-technology markets would indeed prove beneficial, but there is little in postwar Japanese commercial practice to encourage hope for such improvement.

A substantial reduction in nontariff barriers will be hard to achieve in the current round. Unlike tariffs, these have as much to do with intent as with practice. Efforts to open these markets will run counter to national policies in both developing and developed countries, with the likelihood that as one set of nontariff barriers is proscribed, others will be found to replace them. The major exception to this lies in the secular trend toward privatization of telephone and telegraph systems in Western Europe and Japan, which promises to lower the barriers to trade in telecommunications equipment in the aggregate. ^{32/}

An area in which the Uruguay Round may make some substantial progress is that of intellectual property rights. A number of ineffectual organizations currently deal with intellectual property rights disputes, including the World Intellectual Property Organization, the Berne Convention, and the Universal Copyright Convention. Since intellectual property rights are part of the Uruguay Round's agenda, ways of integrating them will have to be found.

32. On the other hand, U.S. telecommunications-equipment exports to Japan have fallen since Nippon Telephone and Telegraph was privatized.

CHAPTER IV

AGRICULTURE

Governments throughout the world have for many years pursued agricultural policies that support farm prices and incomes. In deference to such policies, GATT has permitted the use of import quotas and export subsidies in agricultural trade. Recently, however, large increases in government farm budgets and the recognition that national farm policies in many countries have been a principal cause of the prolonged depression in world agricultural markets have spurred key national leaders to action. They have agreed, in principle, to negotiate reductions in national agricultural support levels and to change their domestic farm policies so as to make them more responsive to world market conditions.

These negotiations will have important consequences for world agriculture. If they stalemate, current tensions could easily escalate into a full-scale trade war in agriculture and possibly spill over into other sectors. In order to succeed, however, major changes in national farm programs may be required, probably involving lower overall support for prices and incomes. A major goal of the reforms--to reduce the production incentives incorporated in most farm programs, or alternatively to break the link between farm income support and production altogether--may require entirely new farm programs. Allowing market conditions to guide farm prices and output would benefit most countries greatly, but some farmers would be made worse off, at least in the near term. This applies most profoundly to farmers who cannot produce at competitive prices, but also for many farmers who currently gain from income supports and subsidies.

Short-term schemes to compensate injured farmers might be required for equity and political reasons. Adjustment costs could be lessened by phasing in any agreement over a long period of time, and by allowing each country flexibility in how long-run targets were met. Losses to farmers would also be less if all countries simultaneously opened their markets through a multilateral agreement. This approach would tend to increase export possibilities and raise world prices for many farm products.

Hopes are high that important agricultural policy reforms can be accomplished during the Uruguay Round. After repeated failures in past GATT negotiations, key national leaders have agreed, in principle, to reforms in their national farm programs that would reduce the impact of those programs on agricultural trade flows and prices.^{1/} Negotiators will at-

1. This was stated in a May 13, 1987, communique from the Council of the Organization for Economic Cooperation and Development.



tempt not only to liberalize agricultural trade policies, but more fundamentally, to reduce the production incentives and consumption disincentives incorporated in the national farm programs; it is these that ultimately motivate most agricultural trade policies. Significant liberalization will also require that GATT's long-standing special treatment of agricultural policy be rescinded.

The major parties in these talks, which have already started, will be developed countries--particularly the United States, the European Community, Japan, Canada, and Australia--since they account for over two-thirds of worldwide agricultural trade. Several of these countries have already begun to reformulate their agricultural policies unilaterally, especially the United States. But farm policies in most countries are still out of step with world market conditions, and lack the flexibility to adjust quickly when market conditions change--especially when world prices fall.

RECENT TRENDS IN AGRICULTURAL TRADE

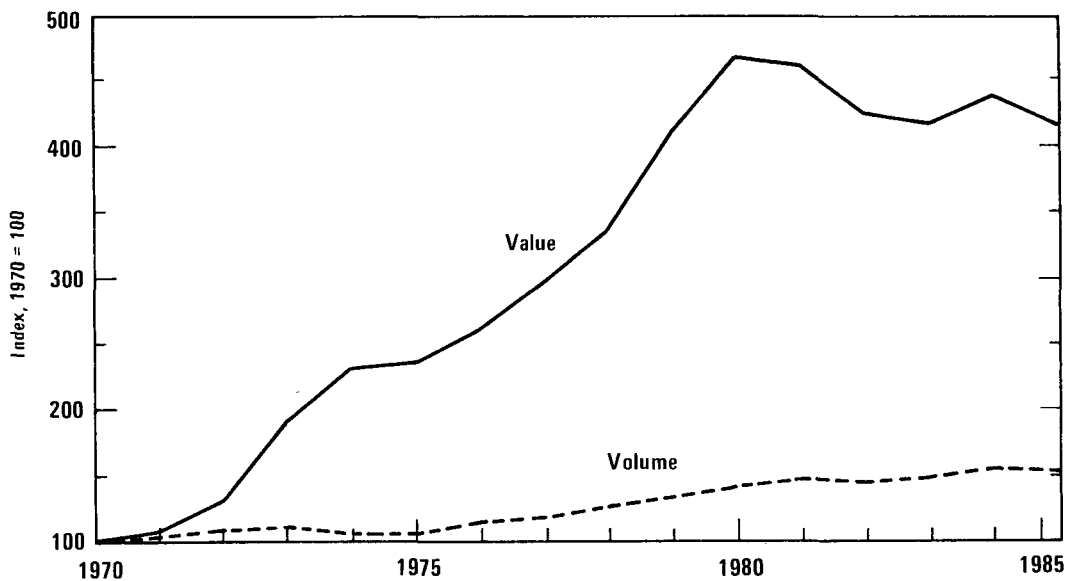
For the world as a whole, the supply of agricultural products has grown faster than the demand for them in recent years. The result has been to force down the prices of most agricultural commodities on world markets. China, the European Community, and to a lesser extent India have emerged as major exporters, while U.S. exports have declined substantially.

In value terms, world agricultural exports declined by about 11 percent between 1980 and 1985, compared with an increase of over 450 percent during the 1970s (see Figure 1). Most of the change in export values resulted from large swings in agricultural prices: unit values rose by almost 300 percent in the 1970s, while export volumes increased by 41 percent.^{2/}

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2. Prices in world agricultural markets tend to be highly volatile in the short run because of rigidities in national markets and erratic weather conditions. Governments often stabilize or support domestic agricultural prices in an effort to insulate their farm economies from the "disruptive" effects of international markets. This process limits the number of people worldwide who actually buy and sell at world prices. Even when domestic prices are allowed to change, agricultural producers and consumers tend to respond slowly and weakly to new prices. Thus, when international market conditions vary, world prices must move substantially to induce a sufficient response in domestic markets to relieve market pressures.

These same factors can prolong often extreme conditions in world markets by limiting adjustment in domestic markets. Over several years, producers and consumers--especially the former--can respond significantly to large and persistent changes in price. Once momentum is built up, however, it is often difficult to reverse. It can take a number of years for a large and protracted swing in world prices to bring about a meaningful turnaround in world market conditions.

Figure 1.
World Agricultural Exports



SOURCES: Congressional Budget Office; General Agreement on Tariffs and Trade, *International Trade 85-86*.

In the 1980s prices have fallen by about 18 percent, and export volumes increased only about 6 percent. Stockpiles of agricultural commodities, another indicator of weak market conditions, have increased significantly during the 1980s.^{3/}

3. The agricultural boom in the 1970s reflected increases in real per capita income (especially in developing countries), a prolonged real depreciation of the U.S. dollar, easy access to financial credit, and policy changes favoring agricultural imports by centrally planned countries. A reversal in these factors, together with farm policies in many countries that maintained production incentives even as world demand declined, led to the subsequent depression in world agricultural markets in the 1980s. Good weather in many key producing areas over this period, especially in Europe, also weakened markets. Another reversal in several of these factors, in particular the recent depreciation of the dollar and changes in several countries' farm policies, may over time improve agricultural trade conditions somewhat.



The Decline in U.S. Exports

World market shares of key agricultural producers have shifted in the 1980s, especially for the United States. The decline in the U.S. share of world markets has been especially large for wheat and coarse grain exports. The U.S. share of the world wheat market fell from about 45 percent in 1981 to about 30 percent in 1986, while its share in coarse grains--such as corn, barley, and sorghum--dropped from about 65 percent to about 44 percent (see Table 6). Australia and Argentina were the largest gainers of market share in wheat exports over this period, as were China and Western Europe in coarse grains.

The value of U.S. agricultural exports has fallen significantly in nominal terms over the last five years--from a record level of \$43.3 billion in 1981 to just \$26.1 billion in 1986 (see Table 7). This decline can be attributed almost equally to reductions in agricultural prices and to reduction in export volume. Major reductions in agricultural export values occurred for almost every important export product except animal products. Grains, which made up almost 45 percent of the total value of U.S. agricultural exports in 1981, contributed only about 26.5 percent by 1986. The United States has suffered not only from the stagnant world market for agricultural products, but it has also lost some of its share in world markets for almost every major commodity group. The United States, nevertheless, is still the world's largest exporter of agricultural products--predominantly exporting food grains such as wheat and rice, coarse grains, oilseeds and products, cotton, tobacco, and animal products.

The largest single purchaser of U.S. agricultural exports is Japan, although sales to the combined European Community exceed those to Japan (see Table 8). Other key markets for U.S. agricultural products include: East Asian countries such as South Korea and Taiwan; the Soviet Union and Eastern European countries; Latin America, especially Mexico; and Canada. Developed countries buy about half of all U.S. agricultural exports, while sales to developing countries contribute about another 40 percent. Sales to centrally planned economies have decreased in relative importance during the 1980s.

The Rise in U.S. Imports

While U.S. exports have fallen, U.S. imports have increased steadily during the 1980s (see Table 7). The chief agricultural products imported by the United States are: coffee and cocoa; animal products, including dairy

TABLE 6. WORLD MARKET SHARES FOR WHEAT AND COARSE GRAINS IN TRADE YEAR 1985/1986 (In millions of metric tons, shares in percent)

Country	Production	Trade	Trade as Percent of Production ^{a/}	Share of World Trade	
				1980/1981	1985/1986
Wheat					
World	499.0	84.9	17.0	---	---
Major Exporters					
United States	66.0	25.0	37.9	44.5	29.4
Canada	24.3	16.8	69.1	18.1	19.8
Australia	16.1	16.0	99.4	11.3	18.8
EC-12	71.7	15.6	21.8	16.7	18.4
Argentina	8.5	6.1	71.8	4.1	7.2
Major Importers					
USSR	78.1	15.7	17.1	17.0	18.5
China	85.8	6.6	7.1	14.7	7.8
Japan	0.9	5.5	85.9	6.2	6.5
Coarse Grains					
World	844.6	83.4	9.9	---	---
Major Exporters					
United States	274.9	36.4	13.2	64.2	43.6
Argentina	17.1	9.7	56.7	13.2	11.6
EC-12	88.3	8.0	9.1	5.5	9.6
China	82.3	7.1	8.6	0.0	8.5
Canada	25.0	5.8	23.2	5.1	7.0
Major Importers					
Japan	0.4	21.5	98.2	17.2	25.8
USSR	100.0	13.5	12.1	21.8	16.2
EC-12	88.3	5.7	6.4	18.3	6.8

SOURCES: U.S. Department of Agriculture and Congressional Budget Office.

NOTE: A trade year for wheat covers activity between July and June. For example, trade year 1985/1986 covers the period from July 1985 through June 1986. A trade year for coarse grains is from October to September. Trade years are adjusted for different production seasons in the Northern and Southern Hemispheres.

- a. Trade as a percent of production for exporters is the ratio of exports to production, and for importers the ratio of imports to total domestic utilization. Production is not adjusted for stock carryover. For example, allowing for stock carryover, Australia generally exports between 80 percent and 90 percent of its wheat production.



TABLE 7. U.S. EXPORTS AND IMPORTS OF AGRICULTURAL COMMODITIES, 1971-1986
(In billions of dollars)

Year	Exports ^{a/}							Imports ^{b/}				
	Total ^{c/}	Coarse Grains	Food Grains	Oil Seeds and Products	Cotton	Tobacco	Animals and Products	Total ^{c/}	Crops, Fruits, and Vegetables	Animals and Products	Coffee and Cocoa	Agricultural Trade Balance
1971	7.7	1.0	1.3	2.2	0.6	0.5	1.0	5.8	0.6	1.5	1.4	1.9
1972	9.4	1.5	1.8	2.4	0.5	0.7	1.1	6.5	0.7	1.8	1.5	2.9
1973	17.7	3.5	4.7	4.3	0.9	0.7	1.6	8.4	0.8	2.6	2.0	9.3
1974	21.9	4.6	5.4	5.7	1.3	0.8	1.8	10.2	0.8	2.2	2.1	11.7
1975	21.9	5.2	6.2	4.5	1.0	0.9	1.7	9.3	0.8	1.8	2.2	12.6
1976	23.0	6.0	4.7	5.1	1.0	0.9	2.4	11.0	0.9	2.3	3.5	12.0
1977	23.6	4.9	3.6	6.6	1.5	1.1	2.7	13.4	1.2	2.3	5.2	10.2
1978	29.4	5.9	5.5	8.2	1.7	1.4	3.0	14.8	1.5	3.1	5.4	14.6
1979	34.7	7.7	6.3	8.9	2.2	1.2	3.8	16.7	1.7	3.9	5.4	18.0
1980	41.2	9.8	7.9	9.4	2.9	1.3	3.8	17.4	1.6	3.8	5.1	23.9
1981	43.3	9.4	9.6	9.6	2.3	1.5	4.2	16.8	2.0	3.5	3.8	26.6
1982	36.6	6.4	7.9	9.1	2.0	1.5	3.9	15.3	2.3	3.7	3.6	21.3
1983	36.1	7.3	7.4	8.7	1.8	1.5	3.8	16.6	2.3	3.8	3.6	19.5
1984	37.8	8.1	7.5	8.4	2.4	1.5	4.2	19.3	3.1	4.1	4.4	18.5
1985	29.0	6.0	4.5	5.8	1.6	1.5	4.1	20.0	3.5	4.2	4.7	9.1
1986	26.1	3.1	3.8	6.5	0.7	1.2	4.5	21.1	3.5	4.5	5.6	5.0

SOURCES: U.S. Department of Agriculture and Congressional Budget Office.

NOTE: In most cases, the United States predominantly exports or imports a certain agricultural product, meaning that gross export and import values in this table also approximately represent net trade flows. This does not hold for the following commodities, where imports roughly offset exports: animals and products; fruits, nuts, and vegetables; and tobacco.

- Exports are valued at the U.S. port of exportation.
- Imports are valued at the foreign port, thus excluding international shipping costs and U.S. duties.
- Totals include items not shown separately.

products; fruits and vegetables; and tobacco. Developing countries, dominated by Latin America, supply almost two-thirds of imports into the United States. Among developed countries, the European Community is the largest supplier.

The fall in exports and the rise in imports have brought a substantial decline in the U.S. agricultural trade surplus, from \$26.6 billion in the peak year of 1981 to only \$5.0 billion in 1986 (see Table 7). For several months in 1986, the United States actually imported more agricultural products than it exported.

TABLE 8. U.S. AGRICULTURAL EXPORTS BY REGION,
FISCAL YEARS 1981 AND 1986
(In billions of dollars)

Importing Region	1981	1986	Change from 1981 to 1986 (In percent)
Western Europe	11.8	6.8	-42
European Community	8.9	6.4	-28
Other	2.9	0.4	-86
Eastern Europe	2.0	0.4	-80
Soviet Union	1.7	1.1	-35
Asia	16.1	10.5	-35
Middle East	1.8	1.2	-33
South Asia	0.6	0.5	-17
Southeast and East Asia	4.8	3.5	-27
Japan	6.7	5.1	-24
China	2.2	0.1	-96
Canada	2.1	1.5	-29
North Africa	1.5	1.4	-7
Other Africa	1.3	0.7	-46
Latin America	6.9	3.6	-48
Oceania	0.2	0.2	0
Total	43.8	26.3	-40
Developed Countries	20.9	14.0	-33
Developing Countries	16.9	10.7	-37
Centrally Planned Countries	5.9	1.6	-73
Total	43.8	26.3	-40

SOURCES: U.S. Department of Agriculture and Congressional Budget Office.



NATIONAL FARM POLICIES AND INTERNATIONAL TRADE

One problem dominates international agricultural markets: present and prospective world supplies of most products far exceed the amounts demanded by consumers. Stockpiles here and abroad have expanded, and world prices have fallen dramatically. At the same time, the government expenditures required to maintain farm programs in many countries have soared. There is an increasing recognition that the current crisis in agricultural conditions results primarily from the national farm programs employed by governments throughout the world. Most such programs give farmers incentives to increase production even as world market conditions deteriorate. It has become evident that these production incentives must be reduced if the conditions of oversupply are to be reversed.

The fundamental problem for policymakers, therefore, is how to devise national farm programs that respond to changes in market conditions, especially in terms of supply incentives, while still recognizing the needs of politically important domestic farm sectors. The task is not just to relieve current imbalances in agricultural markets, but also to reduce the likelihood that they will recur in the future. The United States and, to a lesser extent, the European Community have recently moved in that direction, but their farm policies as well as those in most other countries are still not in line with world market conditions. The need for further change has been recognized. Key governments have agreed to negotiate on how to coordinate long-term reforms in their overall farm programs--not just in their agricultural trade policies--during the Uruguay Round.

This section focuses on how GATT rules will have to be changed to accommodate reform; how various national farm programs operate; and how these programs compare in their effects on producers.

GATT's Treatment of Agricultural Trade

Agricultural trade policy has long received special treatment in GATT. The GATT rules allow a wide range of nontariff barriers in agricultural trade, especially import quotas and export subsidies, that are not permitted for trade in manufactured products. Over the years GATT members, led by the United States, the European Community, and Japan, have refused to expose their farm programs to meaningful international negotiation.

Although not specifically mentioned in the original GATT documents, import quotas and export subsidies for agricultural products have come to be

permitted by GATT. The general prohibition on import quotas was explicitly breached in 1955 when the contracting parties agreed to a waiver (often called the Section 22 waiver) permitting U.S. import quotas that were needed to sustain domestic farm supports, as legislated in Section 22 of the Agricultural Adjustment Act of 1933. Other countries, such as the European Community and Japan, whose goals during the 1950s and 1960s were to increase self-sufficiency in food products, devised various restrictions on agricultural imports that were not covered explicitly by the GATT rules.

The use of export subsidies for agricultural products became increasingly important as Europe's farm production began to exceed demand in the 1970s. Rather than stockpiling its surplus, the EC through its Common Agriculture Policy developed a system of export subsidies to dispose of surpluses on world markets. An agreement on subsidies during the Tokyo Round legitimized export subsidies for agricultural products, with the qualification that the subsidized products not acquire "more than an equitable share of world trade." Tacitly, this agreement sanctioned market-sharing agreements for agricultural products. Recently, the United States has also resorted to explicit export subsidies.

GATT principles are further stretched in agricultural trade by the use of bilateral trade agreements and the extensive role in some countries of state trading monopolies. Significant agricultural trade reform would require that all agricultural trade policies be fully covered by GATT rules and procedures, making necessary several amendments to the General Agreement to remove all special treatment for agriculture. ^{4/}

U.S. Farm Programs

The long-standing aim of U.S. farm policy has been to stabilize and support farm prices and incomes over time, especially when market conditions are weak. Programs are currently in place to support prices and incomes for producers of the major field crops--wheat, coarse grains, soybeans, cotton, and rice--as well as for sugar, milk, tobacco, wool, peanuts, and honey. ^{5/}

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4. The key parts of the General Agreement in which agriculture receives special treatment are: article 11, which prohibits import quotas; article 16, which prohibits export subsidies; and the Tokyo Round Code on Subsidies and Countervailing Duties, which is the basis for the "equitable share" criterion. The 1955 waiver to article 11 mentioned above is particularly important.
 5. See Congressional Budget Office, *Crop Price-Support Programs: Policy Options for Contemporary Agriculture* (February 1984), and *Diversity in Crop Farming: Its Meaning for Income-Support Policy* (May 1985).



Price and income support programs vary, depending on whether the United States exports or imports a commodity. In general, the major field crops are competitive on world markets and do not require protection from foreign imports. Producers of these products rely heavily on strong demand in world markets. For these export crops, U.S. farm policy is designed mainly to protect farm incomes when world market conditions deteriorate. Support is provided primarily through direct government subsidy rather than by maintaining high consumer prices. For farmers who cannot produce at internationally competitive prices, such as many sugar and dairy producers, prices are kept high and defended by import quotas and government purchases. For these products, domestic consumers subsidize farmers through high prices, and the protective policies reduce the farmers' exposure to fluctuations in world markets.

During the 1980s, the combination of weak demand and generous support levels caused U.S. exports to decline, government stocks to increase, and federal budget expenditures on farm programs to reach record levels (see Table 9). The Food Security Act of 1985 revamped U.S. farm policy, primarily for the export crops, by lowering price support levels (and thus

TABLE 9. U.S. AND EC OUTLAYS FOR PRICE AND INCOME SUPPORTS, 1977-1987 (In billions of dollars)

Year	United States	European Community (EC-10)
1977	3.8	8.0
1978	5.6	11.5
1979	3.6	14.9
1980	2.7	16.6
1981	4.0	12.9
1982	11.6	12.8
1983	18.8	14.7
1984	7.2	15.0
1985	17.6	15.7
1986 ^{a/}	25.7	21.8
1987 ^{a/}	24.6	26.2

SOURCES: U.S. Department of Agriculture; European Community.

a. Estimated.

world prices) substantially in an attempt to revive U.S. exports, while maintaining the generous income supports of previous policy. To offset the incentives to increase production that are inherent in the producer price and income support system, program participants were required to reduce the acreage planted in these crops. New export incentives were also introduced to stimulate demand for U.S. farm products. Current farm policy is examined in more detail below.

Policies for Export-oriented Program Crops. Major field crops comprise the bulk of U.S. agricultural exports. The policy generally allows consumers to pay world market prices, although the government stands ready to buy commodities from participating farmers at a support price (the nonrecourse loan rate), which has the effect of establishing a domestic market price floor.^{6/} The government uses the nonrecourse loan program to support prices for wheat, soybeans, and coarse grains. (Cotton and rice producers are also eligible for nonrecourse loans, but marketing loans for these crops offset the impact of nonrecourse loans on market prices.) Under many conditions, this program also creates a price floor in world markets.^{7/}

The government also supports the incomes of producers of these crops, except soybeans, through deficiency payments. Deficiency payments are direct government subsidies that provide farmers with the difference between a "target price" for a commodity and its market price (or nonrecourse loan rate, whichever is higher). For 1986 crops, the target price for wheat is about 80 percent and for corn about 60 percent higher than the support

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6. A participating farmer may receive a nonrecourse loan at a specific per-unit rate (the loan rate), using the crop as collateral. If market prices are high enough when the loan comes due in 9 to 10 months, the farmer will repay the loan with interest and sell the crop. If market prices are too low, the farmer will forfeit the crop to the USDA at no penalty. In this way, nonrecourse loans can set a floor for U.S. market prices. Crop forfeiture forces the government to accumulate stockpiles of commodities, which are normally withheld from the market until prices improve.
 7. Just as Saudi Arabia plays the role of swing producer in world oil markets, the United States is the residual supplier for many international agricultural markets. When prices on world markets for these commodities fall near the U.S. loan rate, other exporters can sell their output at prices just below the U.S. loan rate, leaving only the residual world demand for U.S. exports at the loan rate price. As a result, the loan rate effectively establishes a floor for world prices. Not only does this situation reduce U.S. exports and increase government stocks, but, by keeping world prices higher than otherwise, it exacerbates the problem by dissuading foreign producers and consumers from reducing supply and increasing demand.



price. Deficiency payments are based on historical acreage bases and yields, which can be adjusted by the Department of Agriculture as market conditions change. Typically, the deficiency payment system has provided incentives for many farmers to increase output levels, although current policy has recently reduced these incentives substantially.

Government support for major crops expands substantially when market conditions worsen, as has been the case recently, and contracts when markets boom, as was the case during the 1970s. This system of price and income floors accomplishes relatively well the goal of supporting farm incomes when market conditions deteriorate, but at the cost of encouraging greater output. Government production incentives are greatest when markets are weakest, thus worsening and prolonging weak markets and increasing government expenditures.

The government tries to offset overproduction in two ways: by imposing production controls as a condition for participation in these programs and by seeking to expand demand, particularly for exports. Unpaid crop diversion requirements for 1987 program crops have been expanded substantially: participants must divert 20 percent to 35 percent of their acreage planted in various program crops to other uses. Coarse grain producers also have the option of idling an additional 15 percent of their acreage base in exchange for direct government payments. In addition, all farmers with erosion-prone land can receive payments for long-term acreage diversion through the conservation reserve program.

The government promotes demand for these crops by keeping consumer prices relatively low and by measures to increase foreign sales such as export financing assistance, humanitarian relief to developing countries, and market development activities.^{8/} Recently, as part of the 1985 Food Security Act, additional export incentives have been provided: the Export Enhancement Program subsidizes foreign purchases of U.S. commodities, primarily wheat and flour, by compensating U.S. exporters who sell to foreign buyers at prices below the U.S. market price (effectively the loan

8. Some agricultural exports are financed directly by government credits and others by federal guarantees on commercial loans. Exports to developing countries under P.L. 480, the Food for Peace Program, include sales underwritten by concessional, long-term financing and by donations. About 8 percent of all U.S. agricultural exports in fiscal year 1986 were accounted for by P.L. 480 exports, and about one-fourth of all P.L. 480 exports were donated. The Targeted Export Assistance program funds foreign market development activities.

rate).^{9/} This program has been expanding rapidly, notably through the sale of at least 4 million metric tons of wheat to the Soviet Union at a subsidy of about 33 percent. Marketing loans, which allow producers to sell their output at market prices but to be compensated up to the loan rate by the government, are available for cotton and rice sales to both domestic and foreign purchasers. Both of these programs allow market prices to drop below the U.S. nonrecourse loan rates.

Policies for Import-Competitive Agricultural Commodities. Some products that compete with imports, most importantly milk and sugar, are supported at price levels above world market prices. This support makes it necessary to restrict imports of such products through quotas. In this case consumers, rather than the government, pay the bulk of the subsidy to producers through high domestic prices. For sugar, where domestic demand exceeds supply, only import quotas are used to defend the support price. No government expenditures can be made on the sugar support program by law. World sugar prices have been depressed by the U.S. import restrictions and by the export subsidies employed by other countries, especially the European Community. Recently the U.S. import quota has declined sharply, primarily because high domestic sugar prices have stimulated production by domestic suppliers of corn and noncaloric sweeteners.

Since U.S. milk production is greater than domestic demand, the price of milk is supported both by limiting imports of dairy products and by government purchases of excess supplies of dairy products. In an effort to reduce the costs of this program, the 1985 Food Security Act introduced a dairy diversion program, which compensates farmers for slaughtering their herds and then remaining out of the dairy business for at least five years. More than one million cows, nearly 10 percent of all dairy cows, have been slaughtered under this program.

European Community Farm Programs

The countries of the European Community have integrated their farm programs into a Common Agricultural Policy (CAP). The CAP is based on three

9. The compensation is now in the form of generic commodity certificates that can be sold, exchanged for government-owned stocks, or exchanged for cash. This program has been targeted toward buyers where U.S. exporters compete with other exporters who engage in what the U.S. government deems to be unfair trade practices. The recent sale to the Soviet Union under this program makes this eligibility requirement somewhat less meaningful. The total subsidy value under this program cannot exceed \$1.5 billion during the fiscal year 1986-1988 period.



principles: common pricing, Community preference, and common financing. Common pricing attempts to set a single level of price support for each commodity throughout the EC. Community preference ensures that EC products have a competitive advantage over imported products. Common financing requires the EC to fund all CAP activities.^{10/}

The CAP relies mainly on price supports to sustain farmers' incomes; it makes only limited use of direct income payments and other forms of support. Consumers bear much of the burden through the high support prices, although some input subsidies are used to lessen the impact of high raw material prices on refiners of many agricultural products. The CAP maintains internal price support levels above world price levels. It subsidizes exports to dispose of community surpluses (through so-called restitution payments determined by the difference between domestic support prices and export prices). And it defends the high support prices by means of intervention purchases and variable import levies.^{11/} The CAP applies most importantly to grains, milk and milk products, beef, and sugar. The supply of sugar and milk is held down through production quotas and marketing limitations; producers of these commodities are taxed to help finance the disposal of surpluses.

The CAP has encouraged production of many commodities far in excess of domestic need: self-sufficiency ratios are 120 percent for wheat, 107 percent for coarse grains, and well over 100 percent for most milk products in 1985/1986.^{12/} The EC was a net importer of many of these

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10. Most funding for CAP is provided by a communitywide value-added tax and import levies. The CAP is responsible for all price supports in the EC, but member nations also employ various non-price support programs, including research and extension programs. See Commission of the European Communities, *Report by the Commission to the Council and Parliament on the Financing of the Community Budget*, February 28, 1987.
 11. Variable import levies are tariffs that change over time to assure that prices of imports are always at least as high as domestic prices. When domestic demand exceeds supply, foreign products are imported, but total demand for the product is kept down by the high domestic price. If domestic supply exceeds demand, variable levies act to essentially ban imports, and EC intervention purchases are used to sustain the support prices.
 12. Production increased for a number of reasons. Not only were internal support prices set far above world prices, but until recently these prices rose steadily, providing farmers with a guaranteed price horizon, and encouraging investment in farming. Also, significant research and development expenditures contributed to large increases in agricultural yields, especially for soft wheat, as did the consolidation of many small farms into larger, more efficient, plots. Weather conditions have also been favorable recently.

commodities as recently as the early 1970s. From being a net importer of 6.8 million metric tons of wheat in 1970, it had become a net exporter of 12.7 million metric tons in 1985-1986, accounting for about 18 percent of world wheat exports.^{13/} The EC also now exports dairy products, poultry, eggs, beef, sugar, and wine.

As surpluses have accumulated, the governmental cost of maintaining the CAP has increased significantly, almost doubling from 1982 to 1986 (see Table 9). Export subsidy costs have soared in response to lower world prices in U.S. dollars coupled with the large appreciation of EC currencies. Internal pressure for policy reform has mounted. Change has been slow in coming, however, partly because it requires unanimous agreement by all 12 EC members, but several adjustments have been made. Recent reforms include the imposition of production quotas on milk, co-responsibility levies paid by dairy producers to finance surplus disposal, and more stringent grain intervention arrangements. For the 1986/87 crop, grain support price levels have been reduced or frozen, and grain farmers will pay co-responsibility levies for the first time. The accession of Spain and Portugal to the EC, limiting access to these markets, has led to new conflicts with some trading partners, especially the United States.

Japanese Farm Programs

Japanese farm policy is dictated by the desire to achieve high levels of self-sufficiency in staple food products such as rice, while also sustaining a large number of small farms as a social policy, even though domestic farm production costs far exceed those of foreign suppliers.^{14/} Seventy percent of all agricultural production is covered by support prices, which are often significantly higher than world prices--in the case of rice, from two to three times higher. Various other income support policies, including deficiency payments, are also employed.

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13. Self-sufficiency ratios, defined as the ratio of domestic production to consumption, and European Community wheat export levels are from U.S. Department of Agriculture, *World Agricultural Supply and Demand Estimates*, June 9, 1987, and unpublished USDA sources.
 14. Another goal of overall food policy in Japan is to discourage the consumption of meat for dietary and health reasons. For a good overview of agricultural policies in Japan, the United States, the European Community, and Canada, see D. Gale Johnson, Kenzo Hemmi, and Pierre Lardinois, *Agricultural Policy and Trade: Adjusting Domestic Programs in an International Framework*, A Task Force Report to the Trilateral Commission (1985).



High support prices are implemented in several ways. For rice, the government uses intervention purchases that withdraw excess supply from the market. As long as domestic output exceeds demand, imports of rice are kept at minimal levels, but export subsidies are not used. For most products, however, Japanese demand is much greater than domestic supply, even at high support price levels; in these cases, import restrictions are used to limit supply and elevate prices. Only state trading companies can import rice, wheat, barley, milk, butter, and tobacco; the state companies adjust their import levels to achieve the domestic price-support goals. Imports of beef, oranges, cheese, peanuts, and orange juice are limited by quotas, while a variable levy is used for sugar and a tariff quota for corn. In addition to these measures, Japan imposes tariffs on agricultural products averaging about 18 percent--more than six times the average tariff on industrial imports, and much higher than those of any other developed country. Tariffs are particularly high for oranges, meats, tobacco, and processed foods.

Most of the cost of the Japanese farm support system is passed directly to consumers through higher prices. Some of the remainder is financed out of profits made by the state trading companies when they buy imports at low world prices and release them on the domestic market at the higher support prices. For these reasons, Japanese government farm expenditures have not increased during the 1980s. Pressure to reform Japanese farm policies comes primarily from foreign suppliers, although Japanese consumers are increasingly expressing dissatisfaction with the high prices they must pay for food. ^{15/}

Despite these high protective walls, Japan is still the world's largest importer of agricultural products. If the barriers were eliminated, the prices of rice, wheat, and barley would fall by an estimated 75 percent; imports of agricultural products, especially rice and beef, would increase significantly. ^{16/}

The Cairns Group

Thirteen other key exporters have joined together to form the Cairns Group to represent their interests in the policy debate. ^{17/} For each of these countries, agricultural exports are a large proportion of total exports, mak-

15. Japanese farm policy, by keeping large amounts of land in farm use, is also a major contributor to the very high price of housing.

16. Johnson, Hemmi, and Lardinois, *Agricultural Policy and Trade*.

17. The Cairns Group includes Argentina, Australia, Brazil, Canada, Chile, Colombia, Hungary, Indonesia, Malaysia, Philippines, New Zealand, Thailand, and Uruguay.

ing them quite vulnerable to slumps in world agricultural markets. Moreover, their supply of most agricultural export products far exceeds domestic demand, so that changes in domestic output are virtually identical to changes in the amount available for export--making farm incomes heavily dependent on export sales. Australia, Canada, and Argentina are major exporters of wheat and meat products; New Zealand, of meat and dairy products; Thailand, of rice and corn; Brazil and Argentina, of soybean products; and Brazil, Colombia, Indonesia, Malaysia, the Philippines, and Thailand, of a wide range of tropical products, most importantly coffee, sugar, rubber, palm oil, and coconut products. (Australia is also the world's third largest exporter of sugar.)

Farm programs differ among all these countries, but policies affecting key export products tend to reflect international market forces. Most export products sell at about the same price in home markets as they do for export.^{18/} Since most of these countries do not intervene to support domestic prices, almost all surplus output is exported at world prices and little is stockpiled.^{19/} Even though changes in world prices are passed through quickly to domestic producers, it can take several seasons of low prices to persuade farmers to reduce their output. Many of these countries use state marketing monopolies to implement their agricultural policies and to market exports. Canada subsidizes transportation costs from farm to port. Every country in the group protects some high-cost commodities from foreign competition.

Comparing Key National Farm Programs: The Issue of Transparency

If the parties to the Uruguay Round agree to liberalize their agricultural policies, they must determine how to compare the effects of their diverse farm programs on production, consumption, and foreign trade.^{20/} To do

18. For a number of developing countries in this group, exports are taxed to raise revenues. This causes domestic prices to be less than export prices.
19. In some cases, especially for the developed countries, a substantial decline in world market prices will trigger income and price supports, as has occurred recently.
20. Farm programs provide price incentives in three ways: by changing the prices that farmers receive for their products (through producer subsidies or taxes); by changing the prices that domestic consumers pay (through consumer subsidies or taxes); and by changing the prices at which exports can be offered on world markets (through export subsidies or taxes). The policy instruments employed are various, ranging from government purchases of commodities and the establishment of import quotas (both of which subsidize producers and tax consumers) to direct government payments to producers (which do not affect consumers).



this, they must measure the impact of nontariff barriers in a consistent manner across commodities and countries--often referred to as the issue of transparency. Although there is no single way of measuring the overall economic impacts of all farm programs, a set of metrics has been developed and estimated by the Organization for Economic Cooperation and Development and the U.S. Department of Agriculture. ^{21/}

Producer Subsidy Equivalents. A producer subsidy equivalent (PSE) has been developed to measure the total income transfer to farmers provided by government programs. It provides an estimate of the revenue that would be needed to compensate producers if existing government programs were eliminated. PSEs are calculated by combining all direct government payments to farmers with estimates of the subsidy paid by consumers to producers resulting from policies that raise consumer prices, such as import quotas, variable levies, and government price supports. (Some direct input subsidies are also included.) A PSE can be measured in percentage form by dividing the revenue estimate by the cash receipts, including direct government payments, of the relevant producers. Similar measures can be made for consumer subsidies and taxes, and for producer taxes.

Although PSEs provide an invaluable tool for comparing the effects of government programs across commodities and countries, certain technical problems may limit their effectiveness as a negotiating standard. ^{22/} Most importantly, PSEs measure the transfer of income to farmers by farm programs, not necessarily the amount of trade distortion. They do not differentiate between farm programs that directly affect trade flows, such as export subsidies, and programs such as research and development and market extension that have a much less direct and immediate impact on trade flows. This becomes particularly important in any effort to devise production-neutral income transfers to replace outright production subsidies, since

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21. For a detailed description of the methodology used to calculate producer subsidy equivalents, see Organization for Economic Cooperation and Development, *Ministerial Mandate on Agricultural Trade Draft Report to the Council* (with annexes) (May 1987), and U.S. Department of Agriculture, *Government Intervention in Agriculture: Measurement, Evaluation and Implications for Trade Negotiations*, FAER-29 (April 1987). All PSE results presented in this paper come from the USDA report.
 22. See Nancy Schwartz, "Is There a Role for Producer and Consumer Subsidy Equivalents in Trade Negotiations?", paper presented at the International Agricultural Trade Research Consortium in El Batan, Mexico, December 13-18, 1986.

these would be treated equally by the PSE measure described above. Over time, the methodology of these calculations can be improved, especially in terms of their usefulness to the GATT negotiators. ^{23/}

Comparing Producer Subsidy Equivalents Among Commodities and Countries. Producer subsidy equivalents for many agricultural products and countries have been calculated by the OECD for the years 1979 to 1981. The U.S. Department of Agriculture has updated many of these estimates to cover policies in effect between 1982 and 1984. Unfortunately, many farm policies have changed since this period, as have many exchange rates. Most importantly, under the current regime, PSEs would be considerably higher in most countries because world prices have declined while many farm supports have not. The large appreciation of European Community and Japanese currencies relative to the U.S. dollar would increase PSEs for these countries substantially relative to the United States, Canada, and Australia. Subject to these qualifications, the PSEs calculated by the USDA offer the best available overview of the impact of key national farm programs.

Tables 10 and 11 confirm that developed countries actively subsidize their farmers, but often at different levels for different commodities. In Table 11, Japan stands out as by far the largest subsidizer of its farmers, with a weighted average PSE of 72 percent. The European Community's average subsidy is considerably less at 33 percent, but significantly higher than the 22 percent rates for the United States and Canada. Australia's farm policies provide relatively little support for farmers, estimated at 9 percent. ^{24/} Table 11 also summarizes the main policy instruments employed by various countries to support key agricultural products.

BARGAINING POSITIONS IN THE URUGUAY ROUND

In the Uruguay Round negotiations on agricultural reform currently under way, the chances for major agricultural trade liberalization appear much

23. Other measures of producer subsidy have been recommended that take account of many of these problems. See Gordon Rausser and Brian Wright, *Alternative Strategies for Trade Policy Reform*, Department of Agricultural and Resource Economics, University of California, Berkeley, April 1987.

24. Weighted-average PSEs for several other countries are: 18 percent for Taiwan, 64 percent for South Korea, 8 percent for India, -22 percent for Argentina, -9 percent for Nigeria, 40 percent for Mexico, and 7 percent for Brazil.



TABLE 10. RANKING OF PRODUCER SUBSIDY EQUIVALENTS BY COMMODITY AND COUNTRY, 1982-1984 ^{a/}

Producer Subsidy Equivalent ^{b/}	United States	Australia	Canada	European Community	Japan	Taiwan ^{c/}	South Korea ^{c/}	Mexico	Brazil
0 to 9	Beef Pork Poultry Soybeans	Beef Cotton Pork Poultry Sheep Wheat Wool	Beef Corn Pork Soybeans	Corn		Pork			Poultry
10 to 24		Cane sugar Rice	Poultry Rapeseed Wheat	Common wheat Pork		Corn Soybeans Sugar	Poultry	Cotton	
25 to 49	Corn Cotton Dairy Rice Wheat	Milk	Sugar	Dairy Wheat Poultry Rapeseed Rice Sheep Soybeans Sugar	Poultry	Beef Dairy Poultry Rice Tobacco	Pork	Soybeans Wheat	Cotton Rice
50 to 74	Sugar		Dairy	Beef	Beef Pork Soybeans Sugar	Wheat	Beef Corn Milk Rice Soybeans Wheat	Corn	Wheat
75 to 99					Milk Rice Wheat				

SOURCE: U.S. Department of Agriculture, *Government Intervention in Agriculture: Measurement, Evolution and Implications for Trade Negotiations*, FAER-29 (April 1987).

NOTE: Commodities in boldface are primarily exported. Other commodities tend to be imported.

a. Some products lack data for some years. References to poultry and sheep are to meat, not live animals.

b. Ratio of value of policy transfers to gross domestic value of production including direct payments, in percent, based on data for 1982 through 1984.

c. Impacts of input subsidies not included.

TABLE 11. WEIGHTED AVERAGES OF PRODUCER SUBSIDY EQUIVALENTS BY COUNTRY, WITH MAJOR SOURCES OF ASSISTANCE, 1982-1984

Country	Weighted Average PSE (In percent) ^{a/}	Major Sources of Assistance to Producers			
		Grains and Oilseeds	Dairy Products	Livestock	Sugar
Japan	72 ^{b/}	Grains: State trading Oilseeds: Deficiency payments	Price support through government stock-holding and border restriction. Also some deficiency payments	Beef: Quotas, tariff, domestic price stabilization scheme Pork: Variable levy Poultry: Tariff	Tariffs, surcharges, and rebates
European Community	33	Grains: Variable import levies Oilseeds: Deficiency payments	Variable import levies, export subsidies, and government purchases	Variable import levies and export subsidies	Variable import levies and export subsidies
Canada	22	Wheat and barley: Transport subsidies and income stabilization payments Corn: Tariff Oilseeds: Transport subsidies and income stabilization payments	Domestic price support (maintained with import quotas and direct payments)	Beef and pork: Tariffs, inspection services Poultry: Quota, price support, and tariff	Tariff, stabilization payments
United States	22	Grains: Deficiency payments, PIK entitlements, CCC inventory operations, and commodity loans Oilseeds: CCC inventory operations and commodity loans	Price supports maintained by tariffs, quotas, and government purchases	Beef: Tariff Other: General (R&D, inspection, etc.)	Price supports and quotas
Australia	9	Domestic consumption pricing	Domestic consumption pricing	Input subsidies and inspection services	Domestic consumption pricing

SOURCE: U.S. Department of Agriculture, *Government Intervention in Agriculture: Measurement, Evolution and Implications for Trade Negotiations*, FAER-29 (April 1987).

- a. Weighted average producer subsidy equivalent (PSE) includes several commodities not listed under country headings in Table 4.
b. Excludes citrus.

better than in the past. The interests of many of the key parties have now converged. In both the United States and the European Community, commodity stockpiles and government expenditures have spiraled. All major agricultural exporting countries have suffered from low world prices. And even some net importing countries that gain from low prices find that their domestic producers have been placed at a disadvantage.

These common interests also reflect tensions, as exporting countries vie for shares in stagnant world markets. There is widespread concern that an agricultural trade war has already begun, as seen in the expansion of U.S. export promotion programs and other U.S. policy changes that have driven down world prices while maintaining domestic income support levels; in the Canadian imposition of countervailing duties on U.S. corn exports; and in governmental pronouncements expressing concern about foreign trade restrictions, especially in Japan.

To help defuse tensions, a standstill agreement has been proposed for the first stage of the talks. It would require countries not to expand existing agricultural programs or initiate new ones during the negotiations. The standstill approach is not supported by all U.S. policymakers, some of whom feel that U.S. actions such as expanding export subsidies, while inconsistent with the government's longer-term goals, are needed to spur other countries to negotiate major reductions in agricultural supports. The United States has suggested that the talks be accelerated in an attempt to reap an "early harvest" agreement in two years rather than four, but the European Community has not endorsed the idea.

Each of the participants has much to gain, but also something to lose, by policy reform. Balancing these internal considerations may prove as difficult for many countries as coaxing concessions from foreign bargainers. A final agreement for multilateral reforms will likely aim at some broad commitment by all countries to liberalization, leaving each government considerable discretion as to which programs to change and how fast, and with a phase-in period over a number of years. A parallel task will be to reformulate GATT rules for agricultural trade to accompany any new agricultural agreement.

The United States

Reiterating the high priority that it has set for agricultural policy reform in this round, the United States has offered to table all of its farm programs for negotiation in return for equal consideration by others. The U.S. posi-

tion is based on the assessment that overall U.S. agricultural interests will be enhanced by open markets. Accordingly it stresses reducing foreign producer subsidies and export subsidies, and import barriers. In particular, the United States wants Japan to lower its import barriers substantially, and the European Community to reduce its domestic price supports (and variable levies) and export subsidies. To induce such concessions, however, the United States will have to consider overhauling many of its farm support programs. Most importantly, it may have to rescind its GATT waiver (the so-called Section 22 waiver) permitting it to impose import quotas; lower its price and income supports; and terminate export subsidies.

The United States also favors strengthening the GATT dispute settlement procedure for agricultural cases.

The European Community

The emergence of the European Community as a surplus producer and major exporter of many agricultural products has raised considerably the budgetary costs of its farm policies. It has also increased the EC's exposure to other countries' farm policies in its competition for world markets. Many leaders in the European Community now perceive that their countries stand to gain somewhat by multilateral policy reform. France, a long-time proponent of high support prices, favors reform. The EC position is complicated, however, by the need to obtain agreement from all 12 members for any policy change (West Germany opposes most reform).

The European Community appears committed to maintaining the structure of its Common Agricultural Policy, though it may be willing to reduce support levels somewhat to mitigate its problem of oversupply. It favors arrangements to share markets, while it hangs back from rules that would define the acceptable trade policies that can be used to achieve those shares. Any major reduction in the EC's farm support levels would have to be matched by similar concessions by the United States as a matter of principle--even when such concessions would not be of direct benefit to the EC. The Europeans, like the United States, are exerting considerable pressure for agricultural reform in Japan.

Japan

Japan is the only developed country in the negotiations that is strongly against major agricultural policy reform. Japan holds that since it is the



world's largest importer of many farm commodities, its highly protective national farm policy does not seriously distort world markets and therefore should not be a subject of negotiation. Exporting countries do not accept this position, noting that Japanese import levels would be considerably higher if protection were reduced, thus expanding world demand for many farm products. An undercurrent to the negotiations on Japanese farm policies is the possibility that a refusal by Japan to open its agricultural markets might lead other countries to retaliate against Japanese exports of manufacturing products.

The Cairns Group

Agriculture is far and away the most important issue in the Uruguay Round for most of the 13 members of the Cairns Group. These countries depend heavily on agricultural exports for the viability of their farm sectors and for foreign exchange earnings. They have suffered considerably from the depression in world commodity prices, much of which they attribute to other countries' farm programs.^{25/} The Cairns Group want the United States and the EC to lower production incentives for grains, and Japan and other countries to lower import barriers. They also want GATT revised so as to enhance the rights of third countries that are injured by the unfair trade policies of rival exporting countries. Australia refused to reduce nonagricultural protection significantly during the Tokyo Round because of lack of progress in agricultural reform, and it has restated this position for the Uruguay Round as well. New Zealand has undertaken significant reforms in agricultural policies unilaterally, and wants to receive reciprocal credit for these actions during the multilateral talks. Developing countries, both in and out of this group, want increased access to developed-country markets, especially for tropical products and processed agricultural products.

Each of the developed countries in the Cairns Group, especially Canada, supports and protects some commodity producers, and would be expected to liberalize these programs. Developing countries in the group may be asked to reduce some of their agricultural protection, but on a much smaller scale than the developed countries.

25. The Cairns Group countries were much less concerned over U.S. agricultural policies during the early 1980s when the United States acted to prop up world prices. But the U.S. policy change in the 1985 farm bill that substantially reduced world prices for grains elicited an angry response. These countries have consistently fought against EC farm policies.

IMPLICATIONS OF TRADE LIBERALIZATION FOR U.S. AGRICULTURE: TWO SCENARIOS

The consequences of agricultural trade liberalization would depend on the degree, form, and pace of policy change agreed to, on conditions in domestic and world economies, and on the agricultural policies that would have existed in the absence of a negotiated agreement. A major shift in farm policies would affect not only farmers but consumers, merchants, processors of farm products, and suppliers of agricultural inputs. This section examines two scenarios for liberalization that have received prominent consideration.

Trade Liberalization Scenarios

The primary objective of both scenarios is a substantial decrease in governments' involvement in agricultural markets, especially in giving farmers incentives to produce well in excess of need. One scenario is a phased rollback of current domestic subsidies. This approach would maintain the same price and income support structure currently employed by national farm policies, but would reduce the support levels significantly over time. The second scenario, often called "decoupling," would entail a fundamentally new policy framework; it would phase out current policies (such as deficiency payments, price supports, and acreage controls in the United States) and replace them with direct payments that would be unrelated to production levels and might be based on economic need.

Effects of the Scenarios on U.S. Agriculture. Current programs induce overproduction and, in the case of U.S. acreage controls, lead to misallocation of resources. Curtailing such programs would yield overall benefits for almost every country. At the same time, where government support levels are high, net farm income could drop considerably. For example, well over half of the net income of many U.S. producers of wheat and corn comes from direct government payments.^{26/} Declines in farm income could be ameliorated somewhat by the improvement in world market conditions that would probably result if such reforms were made simultaneously in all major trading countries.

26. This possibility does not imply, however, that reducing government payments to these farmers, along with acreage controls, would reduce their net income by the same amount. Acreage controls offset the benefits of the support payments, so that net farm income would likely fall by less than the drop in government payments.



Agricultural employment would probably decline somewhat if government support policies were reduced significantly. Some adjustment aid, including training and financial assistance, might be provided to farmers leaving agriculture; and some of the savings derived from reducing farm supports could be redirected to diversifying rural development. But agricultural employment, and the proportion of farm family income earned in farming activities, have been declining for many years because of better job opportunities elsewhere. In the long run, cutbacks in support policies would not affect the general tendency for returns to employment in agriculture to approach returns outside of farming.

The main long-term impact of reduction in government support policies would be on the value of assets tied to agricultural production, particularly land. Land prices would drop to the extent that expectations of continued government support are capitalized into the value of the farmland. Present farmers would lose the most because the value of their farms incorporates the expectation of continued federal support, and some of the value of this expected government support was reflected in the price they paid for their farms. Land prices have fallen precipitously in recent years, partly reflecting expectations that current high levels of support, at least for grains and cotton, could not be maintained. These declines may already have absorbed much of the loss from future policy reform.

The effect of worldwide reductions in agricultural support on prices would vary among commodities, depending mostly on the type and extent of present protection here and abroad, and on the reforms that were adopted. The prices of dairy products and sugar, the commodities that receive the most price protection in the United States, would decline as import restraints were reduced and as domestic price support levels fell. World prices of these commodities would increase, at least in the short run, because of declining world production and increasing world consumption. The U.S. dairy industry would probably contract. Similar, although probably more significant adjustments, might be required in the U.S. sugar industry.

Beef prices would tend to increase here and abroad, in the short term, as lower levels of protection in Japan and the European Community led to increased consumption. The effect of liberalization on prices of other major commodities is less clear. One recent study estimated that the net effect of complete liberalization of agricultural trade in the developed industrial market countries would be relatively small increases--less than 5 percent--in U.S. and world prices for wheat and coarse grains.^{27/} However, the base

27. Rodney Tyers and Kym Anderson, "Distortions in World Food Markets: A Quantitative Assessment" (background paper for the World Bank's *World Development Report*, 1986).

period for this study was 1980; at the current low prices for most grains, policy reforms would be likely to increase grain prices by much more.

Effects of the Scenarios on U.S. Farm Programs and Federal Spending. The historical commitment of the U.S. government to its agricultural sector would not be likely to end if trade was liberalized. A decoupling of production subsidies from income supports would allow the government to continue assisting farmers while removing some of the existing incentives to excess output and inefficient production. Transition payments could be provided to all farmers to assist them in the shift toward freer markets. More permanent forms of assistance could be designed for purposes of social welfare or rural development.

Current U.S. programs for grains and cotton have some characteristics of decoupling: deficiency payments are not now tied to current production, and some portion of them may be received without producing the supported crop on all permitted acres. Also, for most grains and cotton, once the effect of marketing loans and the export enhancement program is taken into account, market prices would probably not fall substantially if U.S. price supports were withdrawn. This means that most of the adjustment under a decoupling scenario would entail changes in the form, and amount, of government payments, and not in prices--at least as long as current market conditions continue.

Decoupling in dairy and sugar farming would involve somewhat different procedures, since consumers now pay much of the cost of the subsidy to these producers. Market price supports would have to be reduced, and compensation for all or part of the income loss could be made through direct government payments, which might be phased out over time or continued indefinitely. In the case of the sugar program, which now entails no cost to the government, any payment made to current producers would require an increase in government spending. Full compensation for lost income to sugar producers would be quite costly. The President's 1988 budget included a proposal to cut sugar price supports by one-third and to provide nearly full compensation to current producers during the first year through direct government payments. The payments would be reduced annually and eliminated in the fifth year. This program, which resembles what might happen in the event of trade liberalization, would cost the government nearly \$700 million in the first year, though gains to consumers would be even greater. It has not received serious attention by the current Congress, perhaps because it would increase federal outlays. However, it might gain support as part of a broader trade liberalization package.



For dairy farmers, full compensation for lost income could also be quite expensive to the government because much of their current support is paid by consumers through high prices rather than directly by the government. Fully compensating the losses to grain, cotton, and soybean producers would probably reduce federal spending, since most support for these crops currently comes from the government rather than from consumers, but this would depend critically on the scope of the compensation scheme.

If, instead of decoupling, the current set of U.S. farm programs was simply adjusted downward, federal expenditures would be affected in diverse ways. Government expenditures would probably fall, although it is impossible to estimate by how much without knowing how these programs are to be curtailed. Federal outlays for current farm programs are projected to average roughly \$20 billion annually over the next five years. Additional federal spending on agriculture includes credit programs, federal subsidized crop insurance, and research and education programs.

Other federal programs are designed to stimulate exports. These include the Export Enhancement Program (EEP), export credit guarantees, and food aid to developing countries. The EEP, which subsidizes exports of grains, especially wheat, costs between \$200 million and \$300 million annually. Full elimination of this program would reduce federal spending by the same amounts. Export credit guarantees, which help to finance export sales of agricultural commodities, involve federal outlays only when loans are defaulted. Past outlays for this program have been around \$250 million annually, but it is budgeted to spend between \$500 million and \$600 million annually in the next two years. The cost of food products given as in-kind aid to developing countries is minimal, but there are some processing and transportation costs associated with this program. It is unlikely that cut-backs in export credit guarantees or in food aid will be addressed during these negotiations.

CHAPTER V

MATURE INDUSTRIES: AUTOMOBILES, STEEL, TEXTILES AND APPAREL

Import restraints and export subsidies have been important in shaping trade in mature industries such as textiles, apparel, steel, and automobiles. These industries, so important to many developed economies, have suffered from diminished growth in demand, displacement by new technologies, and competition from producers in other countries.

The General Agreement on Tariffs and Trade was designed to limit government protection of firms competing in international markets. GATT permits a government to restrict imports temporarily, however, to allow an industry to adjust to increased international competition stemming from trade liberalization. GATT also permits certain kinds of subsidies, although it prohibits direct subsidies of exports.

Thus many government efforts to defend mature industries violate the spirit if not the letter of the General Agreement. For example, countries frequently agree to limit their exports at the request of an importing country; such voluntary export restraints are not prohibited by GATT, which applies only to unilateral restraints imposed by importing countries. Likewise, GATT permits countries to subsidize an industry so long as the subsidies do not injure firms in other countries. Such subsidies do not directly stimulate exports, but affect producers in other countries by increasing world supplies and lowering prices.

Participants in the Uruguay Round will discuss ways of reducing trade restraints and subsidies and will try to develop rules to limit their future use. They will be mindful, however, that international competition may lead to further restructuring of some mature industries and will seek ways to reduce the costs of "adjustment." Since GATT imposes less stringent standards on developing countries, the Uruguay Round will also consider how to apply the rules of international trade to newly industrialized countries as they mature.

The automobile, steel, textile, and apparel industries are among the oldest and largest industries in the United States and other industrially developed countries. Over the last several decades, however, they have faced increasing international competition. Governments have sought to aid these and other mature industries by giving them subsidies and creating barriers against imports. Similar policies have been used by developing countries in the hope of speeding the growth of their economies.



Such policies have to some extent shielded mature industries from the recent dramatic changes in trade patterns. Though the U.S. trade deficits in automobiles, steel, textiles, and apparel have been large and, with the exception of steel, increasing, other industries have accounted for a larger part of the deterioration in trade during the 1980s. In 1981, for example, these three industries ran a combined trade deficit of \$28 billion, while overall U.S. manufacturing recorded a narrow surplus (see Table 12). By 1985, the balance of trade for all U.S. manufacturing had declined by \$117 billion, and these three industries accounted for one-third of the deterioration. In the European Community, the trade surplus of these industries grew by 1 percent between 1981 and 1985, while that for all

TABLE 12. TRADE BALANCES BY PRODUCTS AND COUNTRIES
(In current dollars)

Year	All Manufacturing	Automobiles	Textiles and Apparel	Steel
United States				
1981	5,010,513	-13,187,312	-6,324,556	-9,268,858
1982	-11,102,917	-18,164,291	-7,884,105	-8,187,905
1983	-38,987,566	-22,853,218	-10,452,276	-5,933,614
1984	-87,933,576	-30,341,355	-15,993,459	-10,510,576
1985	-112,088,215	-39,293,177	-18,101,751	-9,965,951
European Community				
1981	99,982,863	17,858,418	-1,687,212	13,191,542
1982	94,635,322	18,017,718	-1,448,884	9,658,090
1983	89,456,027	15,804,283	-597,258	8,450,895
1984	89,718,235	16,556,211	-32,949	9,703,867
1985	96,248,013	18,388,893	869,398	10,482,929
Japan				
1981	115,777,291	31,948,491	2,994,779	15,602,124
1982	104,269,225	29,204,066	2,194,812	14,429,255
1983	110,649,306	31,027,939	2,993,576	11,494,579
1984	128,283,515	35,673,449	2,236,095	11,940,355
1985	134,480,345	40,920,934	1,759,826	12,086,342

SOURCE: United Nations and Congressional Budget Office.

NOTE: "All manufacturing" includes Standard International Trade Classifications 5, 6, 7, 8, and 9.

manufacturing declined by 4 percent. In Japan, where the overall trade balance improved, two of the three industries remained flat and only automobiles increased its surplus. In the newly industrialized countries, the trade balance improved markedly, going from a deficit of nearly \$5 billion in 1981 to a surplus of over \$20 billion in 1985. Industry data for these countries, however, were not available. ¹/

Nevertheless, the developed nations have had only limited success in shielding these industries from the discipline of the marketplace. Competition from abroad has been a factor, but it is rarely the only reason for a protected industry's difficulties. A slowdown in the growth of domestic consumption, coupled with increased productivity and changing tastes, often plays a critical role. Trade restraints in themselves frequently afford only limited protection. In the case of quotas, the most important trade barrier, foreign producers not covered by the restraints tend to increase their exports while those who are constrained by them tend to shift their product mix toward more expensive goods.

This chapter scrutinizes the use of subsidies and nontariff trade barriers to protect mature manufacturing industries. Negotiations in the Uruguay Round over these policies will be of particular importance to the automobile, steel, and textile and apparel industries.

CURRENT PROBLEMS IN MATURE-INDUSTRY TRADE

When the sales of an industry decline and force it to contract, most of the costs of adjustment are borne by the labor employed in the industry. Government can aid the industry by directly subsidizing it or by erecting barriers against its foreign competitors. These policies impose costs on producers in other nations, because subsidies and trade restraints increase the world's supply of the product and put downward pressure on world prices. Despite the gains to the aided industry, these policies also impose costs on the nation employing them, particularly by discouraging resources from moving to sectors where they might be more productively used. The costs of the policies will increase if other countries retaliate by imposing trade restraints or providing subsidies to help their own firms.

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1. The newly industrialized countries include Brazil, Hong Kong, South Korea, and Singapore. Data on their trade balances is from Wharton Economic Forecasting Associates, *World Economic Service Historical Data* (Philadelphia: Wharton, January 1987).



Trade Restraints

Barriers to trade generally take the form of tariffs or quotas. In the industries considered here, quotas are widely used.^{2/} Quotas, or quantitative limits on imports, are often arrived at by mutual agreement in which the exporting country agrees to limit its exports to the importing country.^{3/} Such voluntary export restraints are not covered by GATT, which applies only to unilateral restraints imposed by importing countries. GATT gives developing countries even wider latitude in protecting their industries. The developing countries have been largely exempt from previous rounds of tariff reduction, and they have also erected numerous nontariff barriers to foster the growth of emerging industries. Increasingly, the United States and other developed countries have begun to retaliate or to threaten retaliation against trade barriers erected by developing countries.

GATT permits trade restraints for only a limited time, to give an industry a chance to adjust to increased international competition.^{4/} In the three industries considered here, however, trade restraints have tended to persist. Moreover, the restraints are often extended to other products or countries as time goes by. And restraints imposed by a major country such as the United States (or a bloc of countries such as the European Community) often elicit similar actions from other countries.

The Quasi-permanence of Trade Restraints. The persistence of restraints can be seen in many mature industries. Since the 1950s, restraints on textile and apparel products have expanded principally through a series of multilateral agreements--of which the current one is the Multifiber Arrangement--that establish rules by which developed countries can limit imports from developing countries. Although these agreements and arrangements always have expiration dates, the parties invariably renew them. This system has developed in spite of the fact that tariffs in these industries are

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2. Under GATT, a country can impose quotas unilaterally only to rectify balance-of-payments difficulties. GATT permits trade restraints in aid of an industry that has been injured or threatened with serious injury by trade liberalization.
 3. Though mutually-agreed-upon quotas are often announced, there are apparently instances in which limitations on exports are the result of nonpublic understandings between governments. In addition, countries have sometimes quietly taken unilateral administrative actions, such as restrictive customs or inspection procedures, to impede imports.
 4. When a nation protects an industry that has been injured by a trade liberalization, Article XIX of GATT allows affected countries to withdraw equivalent concessions that they had made.

higher than in other manufacturing industries. As originally conceived, the agreements were intended only to facilitate more orderly trade, not to provide permanent protection. As now administered, both by the United States and by the European Community, the aim seems to be to preserve the size of the domestic industries.^{5/} In the United States, for example, the outputs of the textile and apparel industries have remained relatively stable since the Multifiber Arrangement was put into place in 1974.^{6/} While employment has declined, this has been largely the result of increased productivity, which has been especially rapid in the textile industry. Similar trends are evident in Europe.^{7/}

Quotas in the automobile industry have appeared more recently and are aimed mainly at Japan. While they have not been the product of a formal multilateral process, as in textiles and apparel, they are also proving to be long lasting. This is most clearly illustrated by the experience in the United States, the largest export market for Japanese cars. The 1980 recession, coupled with rising gasoline prices, contributed to a nearly 30 percent decline in domestic car sales with unprecedented industry losses. During that same year, sales of Japanese imports rose by 40 percent. In the spring of 1981, President Reagan negotiated a voluntary restraint agreement with Japan. Although the arrangement was to be temporary, it was renewed in each of the following three years; since then, Japan has unilaterally restricted its automobile exports to the United States.^{8/}

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5. Clayton Yeutter, the U.S. Trade Representative, has claimed that the President was committed to relating "total import growth to the rate of growth of the domestic market." Seventy-seven Senators and 302 House members had sent letters to President Reagan to limit growth to the rate of growth of the domestic market. See *Inside Trade*, July 11, 1986, p. 2.
 6. See testimony of Walter Lenahan, Deputy Assistant Secretary, Department of Commerce, before the Subcommittee on Commerce, Consumer and Monetary Affairs of the Committee on Government Operations, March 6, 1985.
 7. Between 1976 and 1985, EC production of textile, clothing, and leather declined at an average annual rate of less than 1 percent per year. Employment declined at an average annual rate of approximately 2.5 percent.
 8. Japan agreed to export 8 percent fewer cars to the United States in the year ending March 31, 1982, than it had in 1980. Japan later agreed to maintain the same level of imports for another year. The level was increased by 10 percent for the next two years. Despite the expiration of the voluntary agreement in 1985, Japan elected to continue restricting its exports. With the decline in the value of the dollar, and increased car production by Japanese firms in the United States, the quotas may have little impact on U.S. imports during 1987.



The United States is not alone in restricting the sale of imported cars. In 1976, Italy limited Japanese imports to 2,200 cars per year; in July 1986, it raised the limit to 3,300 per year. France does not permit Japanese imports to exceed 3 percent of domestic new car sales.^{9/} Both Spain and the United Kingdom have had restraint agreements with Japan to limit Japanese auto imports. Because sales of Japanese cars in other European markets have been increasing, the EC has apparently prevailed upon Japan to limit voluntarily its car exports to Europe beginning in 1987.^{10/}

In addition to explicit limits on trade, a number of countries have established "local content" regulations that effectively prohibit the sale of imported cars. For the most part, these regulations were adopted before Japan emerged as an important supplier of automobiles. For example, 85 percent of the value of cars sold in Australia must come from domestic parts and labor. Spain has had a local content requirement of 55 percent, which it agreed to phase out with its entry into the European Community.^{11/} Such local content requirements are also widespread in developing countries and in Latin America.

Although steel trade is not governed by a multilateral trade agreement, most major steel-consuming nations have imposed some restraints. The United States has protected the steel industry on three different occasions.^{12/} Most recently, in the fall of 1984, it negotiated voluntary export restraints with countries that are its principal steel suppliers. Voluntary export restraints had previously been negotiated with the EC and Japan in the late 1960s; these were renewed once, and expired in 1974. In 1978, the United States established trigger prices; imports below those levels were subject to accelerated anti-dumping proceedings.

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9. See "Japanese Makers Gain Market Share in Europe," *Automotive News*, July 7, 1986, p. 35.
 10. See "Company Brief; Toyota Learns to Sprint," *Economist*, January 12, 1987, p. 75.
 11. See International Trade Commission, *The Internationalization of the Automobile Industry and its Effect on the U.S. Automobile Industry*, Publication 1712, June 1985.
 12. The United States imposed countervailing duties in a number of cases after it was found that foreign firms sold steel below cost. And allegedly there have been a number of informal agreements to limit imports at times when explicit restraints were not in effect. See Gary Clyde Hufbauer and others, *Trade Protection in the United States* (Washington, D.C.: Institute for International Economics, 1986), pp. 170-174.

Europe has also restrained trade in steel over a period of years. In 1979, as conditions in the industry deteriorated, the Commission of the European Communities declared a "manifest crisis" under the Treaty of Paris.^{13/} This enabled the Commission to establish minimum prices and quotas for steel products sold in Europe, as well as requiring that subsidies and expansion plans be approved by the Commission.^{14/} The European Community also negotiated bilateral agreements with 14 major supplying countries and established minimum import prices for other foreign suppliers. Though these measures were meant to be temporary, the Europeans have not yet completely shed them.

Although Japan no longer explicitly limits steel imports, it imports little steel from Korea, which emerged as an important low-cost producer in the 1980s. Also, an official of the EC has recently complained about restricted access to the Japanese market.^{15/}

The Increasing Scope of Trade Restraints. A quota established to protect an industry usually applies to the industry's principal competitors and rarely to all the world's producers; it thus conflicts with the principle of nondiscrimination, which is basic to GATT. One result of such discrimination is to give firms in unconstrained countries an incentive to increase exports to the protected market. Moreover, producers that are subject to the constraints often respond by focusing on higher-valued products under the quotas and also by increasing their sales of substitute products that are not covered. The importing country often reacts by broadening the scope of a quota to cover additional countries and products, as well as by defining products more precisely to limit upgrading by foreign producers.

Experience in the textile and apparel industry vividly illustrates how restraints tend to expand. At first, quotas covered only exports of cotton products from Japan to the United States and the United Kingdom. The

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13. Under the Treaty of Paris, many European countries have delegated substantial authority to the Commission at times of "manifest crisis." See Raymond Levy, "Industrial Policy and the Steel Industry," in William James Adams and Christian Stoffaes, eds., *French Industrial Policy* (Washington, D.C.: Brookings Institution, 1986), pp. 63-74.
 14. See International Trade Commission, *Foreign Industrial Targeting and Its Effects on U.S. Industries, Phase II: The European Community and Member States*, Publication 1517 (Washington, D.C.: April 1984).
 15. See "EEC Intends to Ease Restraints," *American Metal Market*, December 3, 1986, p. 3.



subsequent growth of cotton exports from Taiwan, Korea, and other countries led to restraints on those. As imports of non-cotton products expanded, quotas were first placed on synthetics and wool, then on silk, linen, and ramie. In addition, the number of cotton and textile products subject to quotas also increased. Thus, over time, both the number of countries and the number of products covered by restraint agreements have increased.

A similar expansion has occurred in steel, where U.S. restraints on steel imports have covered an increasing number of countries. The first round of restraints included only Japan and the six original members of the European Community. The most recent round involves substantially more countries, and several of the agreements contain detailed product classifications. ^{16/}

How Protection Breeds Protection. A government's decision to limit imports gives the constrained exporters incentives to divert their output to other countries. This in turn increases the pressure on other governments to impose trade restraints.

At the time the United States entered into its voluntary restraint agreement with Japan to limit imports of Japanese cars, West Germany was given assurances that Japan would not divert the cars to its market. These assurances apparently did not last as long as the restraints on Japanese car sales in the United States, because sales of Japanese cars in Germany and other European countries have increased in recent years. The restraints on exports to the United States may have accelerated the growth of Japanese exports to Europe and contributed to the recent agreement that limits Japanese car exports to the EC. ^{17/}

A similar pattern may be at work with textiles and apparel. Despite the framework of multilateral agreements, quotas are negotiated bilaterally. Some maintain that the runup of textile and apparel exports to the United States during the 1980s stemmed from the more restrictive quotas the EC negotiated in the 1980s. ^{18/} While the value of U.S. apparel imports from developing countries increased by more than 90 percent between 1980

16. See Congressional Research Service, *The President's Steel Import Program: One Year Later*, October 16, 1985.

17. See "Company Brief: Toyota Learns to Sprint," *Economist*, January 17, 1987, p. 75.

18. Thomas Howell and William Noellert, *The EEC and The Third Multifiber Arrangement: A Study Prepared for the Fiber, Fabric, and Apparel Coalition for Trade* (Washington, D.C.: Dewey, Ballantine, Bushby, and Wood, 1986).

and 1984, Europe's imports from these countries (measured in dollars) declined by 13 percent. Similarly, U.S imports of textiles from developing countries increased by 70 percent, while European imports declined by 20 percent. As a result, the U.S. textile and apparel trade deficit with developing countries swelled, while the EC's declined (see Figure 2).^{19/} Also important, of course, were the strength of the dollar and the more rapid growth of the U.S. economy during this period.

In any case, the higher textile and apparel imports into the United States created pressure to provide the industry with more relief. For example, the Congress passed a bill, vetoed by President Reagan, that would have placed tighter limits on imports from developing countries. Before the most recent extension of the Multifiber Arrangement, the United States negotiated much tighter quota limitations with a number of its major suppliers.

Subsidies

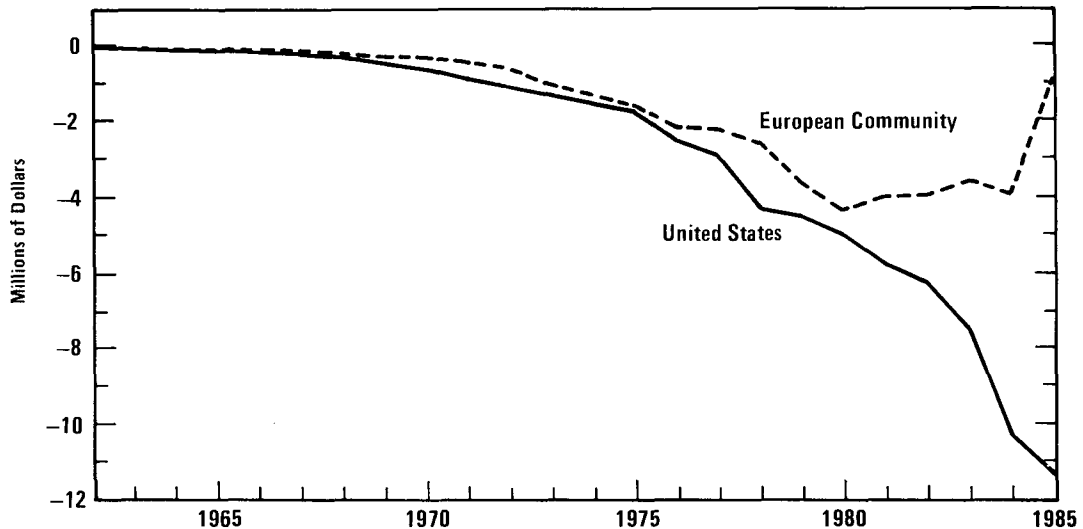
Negotiations in the subsidy panel of the Uruguay Round are likely to have a profound influence on mature industries. GATT is more ambiguous on the issue of subsidies than on trade restraints. While acknowledging that subsidies to firms competing in international markets distort trade flows, the General Agreement recognizes the right of a country to subsidize firms to "promote important objectives of social and economic policy."^{20/} It notes, for example, that subsidies can legitimately be used to help economically disadvantaged areas, to facilitate restructuring, or to maintain employment.

GATT tries to balance the rights of nations to subsidize an industry with its own goal of promoting international competition. It therefore maintains different standards for different types of subsidies, and imposes less stringent standards for developing nations. GATT flatly prohibits subsidies that lower the price of an exported manufactured product below its domestic price.^{21/} It prohibits other subsidies, however, only when they

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19. A sharp decline in the EC's textile exports more than offset the fall in imports, so its textile trade balance deteriorated by roughly the same amount as the United States' textile trade balance.
 20. Gary Hufbauer and Joanna Erb, *Subsidies in International Trade* (Washington, D.C.: Institute for International Economics, 1984), pp. 13-16. Appendix A of that book reproduces the relevant articles of the GATT and an agreed interpretation of those provisions.
 21. See Article XVI:4 of the General Agreement. Limited export subsidies are permitted in the case of some primary products.



Figure 2.
Apparel Industry: Trade Balances of the United States and the
European Community with Developing Countries



SOURCES: Congressional Budget Office; United Nations.

NOTE: The trade balances are exports to developing countries minus imports from them. The developing countries include all apparel-exporting countries that are not mature industrial countries.

cause or threaten to cause material injury to firms in other countries.^{22/} After finding material injury, the government of the injured party can impose countervailing duties in the amount of the subsidy.

Developing countries' use of export subsidies is limited only to the extent that they adversely affect firms in other countries. In such a case, the developing country is obliged only to "endeavor to enter into a commitment to reduce or eliminate the subsidy." It can continue to provide other types of subsidies as long as it adheres to the commitments it has made under the agreement.

22. Evidence of material injury includes falling output, profits, or employment. Subsidies that merely reduce the rate at which an industry's output or profits grow do not violate the agreement.

From the perspective of international trade, only those subsidies that result in expanded output are harmful to producers in other countries.^{23/} Yet determining the magnitude, let alone the effect, of a subsidy is a difficult task.^{24/} It is made more difficult when firms are owned by governments. For example, chronic operating losses do not prevent a nationalized firm from undertaking investments that a private firm would believe to be uneconomic. Similarly, government ownership may make a firms's capacity and production decisions less responsive to market signals.

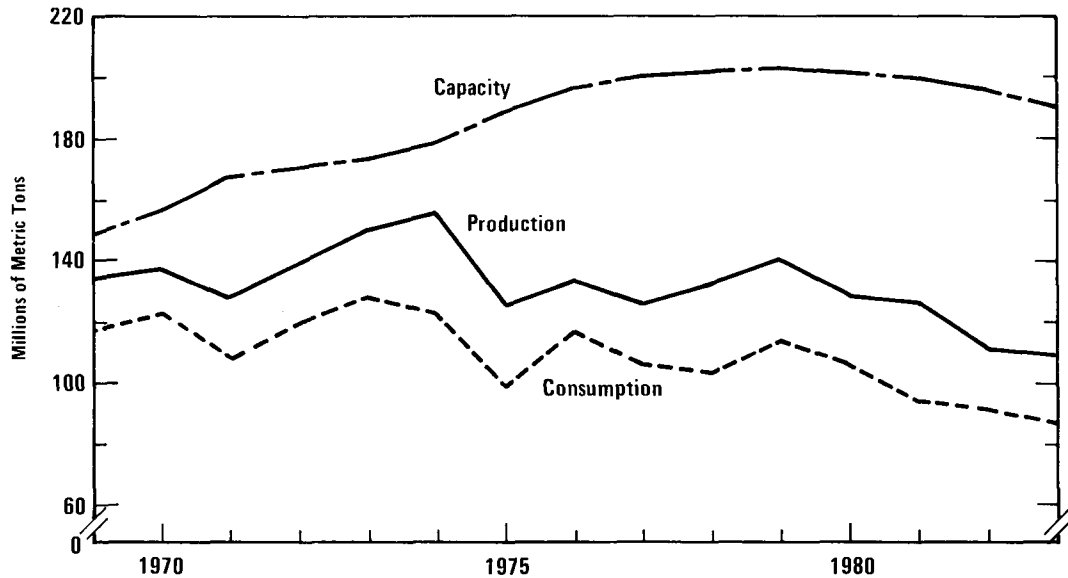
While European governments have provided subsidies to firms in all three of the industries considered here, support of the steel industry has been especially noteworthy. Between 1980 and 1985, the members of the EC reported over \$35 billion in government subsidies to steel manufacturers.^{25/} More than half of those were earmarked for operations, and 30 percent for investment. Government assistance was at least partly responsible for the increase in Europe's steelmaking capacity despite declining consumption during the 1970s (see Figure 3). The combination of increased capacity and declining domestic sales increases the incentives of European steel producers to depend on foreign markets.^{26/}

The subsidies to EC's steel industry were announced as part of a "manifest crisis" in 1979, and were supposed to end by 1985. Subsidies continued, however, helping to preserve substantial redundant capacity. In the United Kingdom, Italy, and Germany, in particular, political pressures are apparently keeping unnecessary capacity in operation.^{27/}

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23. For example, government subsidies of high-cost upstream producers, such as coal producers, would not adversely affect the downstream market, such as steel, so long as the subsidies did not exceed the coal producers' cost disadvantage. The subsidies would, however, affect the coal market by stimulating the production of coal by marginal producers.
 24. Signatories to the GATT, upon written request, agree to furnish information on the nature and the extent of the subsidies they provide that directly or indirectly increase exports or reduce imports of a product.
 25. *15th Report On Competition Policy* (Brussels: Commission of the European Community, 1985).
 26. For a discussion of these issues, see International Trade Commission, *Foreign Industrial Targeting...The European Community*; also "Government Aid to the Steel Industry of the European Communities," prepared by Verner, Liipfert, Bernhard, McPherson and Hand for Bethlehem Steel Corporation and United States Steel Corporation.
 27. See "Europe Pays On," *Economist*, July 13, 1985, p. 72, and International Trade Commission, *Operation of the Trade Agreements Program, 1985*, Publication 1871 (June 1986), p. 144.



Figure 3.
European Community: Steel Production, Consumption, and Capacity



SOURCES: Congressional Budget Office; International Iron and Steel Institute; Organization for Economic Cooperation and Development.

Government support has also been important to a number of European automobile manufacturers. The French government owns Renault, and the British government owns Rover; it is doubtful whether either firm could produce at its current scale absent government assistance. Renault might very well have gone bankrupt at the end of 1985 had not a law prohibited it from doing so and had not the government provided it with aid.^{28/} After Rover was nationalized in the 1970s, because it was failing as a private firm, its capacity, work force, and wage rates were reduced. Nevertheless, the government has provided \$3.25 billion of aid to Rover since 1975.^{29/}

Subsidies are also evident in the textile and apparel industries. Several European governments have subsidized inefficient plants and have invested in industry modernization. Because of their cost, many of these

28. See "France Plans to Alter Renault's Protected Status," *Automotive News*, November 17, 1986, p. 2.

29. See "Britain's Rover Pins Hope on American Love of Luxury," *Wall Street Journal*, February 19, 1987, p. 32.

subsidy programs have been curtailed.^{30/} Nevertheless, Italy continues to provide substantial operating and investment subsidies to a major state-owned producer, ANIC-Fiber. France nationalized Rhone-Poulenc in 1982 and has subsidized textile and apparel workers' social security contributions.

The United States has been much more reluctant than other countries to subsidize its ailing firms. The only significant direct U.S. government subsidy of a firm in a mature industry was the \$1.5 billion loan guarantee to Chrysler made in January 1981.

Japan has used a combination of subsidies and trade protection in an effort to help its industries become established in international markets. It nurtured the automobile industry under restrictive trade barriers and through loans, grants, and tax incentives.^{31/} It employed similar policies in the steel industry. In both cases, these measures were apparently discontinued once the industry was able to compete effectively.

Several of the newly industrializing countries employ measures similar to those used by Japan to bolster certain manufacturing industries. Korea and Brazil have recently completed large integrated steel mills; in a reversal of historic patterns, both have had positive trade balances during the 1980s. Korea and Taiwan are using a combination of trade restraints and subsidies to establish automobile industries. Many developing countries, as well as some of the newly industrialized countries, have provided interest-rate subsidies and other grants to promote growth in their textile and apparel industries.^{32/} Moreover, a number of developing countries have also established import restrictions in order to bolster their textile and apparel manufacturers.

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30. For a discussion of these programs, see Organization for Economic Cooperation and Development, *Textile and Clothing Industries* (Paris: OECD, 1983), p. 133; Thomas Howell and others, *The Textile and Apparel Trade Crisis: A Study Prepared for the Fiber, Fabric and Apparel Coalition for Trade* (Washington, D.C.: Dewey, Balantine, Bushby, Palmer and Wood, 1985), pp. 110-145; International Trade Commission, *Foreign Industrial Targeting and its Effects on U.S. Industry, Phase II: The European Community and Member States* (Washington, D.C.: ITC, 1984), pp. 148-153. For a further discussion of France's policies, see John Zysman, *Governments, Markets, and Growth* (Ithaca: Cornell University Press) pp. 154-157.
 31. See, for example, International Trade Commission, *Foreign Industrial Targeting and its Effects on U.S. Industries, Phase I: Japan*, Publication 1437 (October 1983), p.129.
 32. See International Trade Commission, *Foreign Industrial Targeting and Its Effects on U.S. Industries, Phase III: Brazil, Canada, The Republic of Korea, Mexico, and Taiwan*, Publication 1632 (1985), pp. 70-72, 170-172, and 280-281. Also see Thomas Howell and others, *The Textile and Apparel Trade Crisis*, pp. 40-106.



BARGAINING POSITIONS IN THE URUGUAY ROUND

The basic industries considered in this chapter are shifting from the industrialized areas of North America, Europe, and Japan to the industrializing countries of the Third World. The process is occurring more rapidly in some industries and countries than in others. Even if the importance of these industries in the industrialized countries continues to decline, they will retain a footing there either for technological reasons or to be close to markets.

The spread of basic industry is driven by the standardization of technology, the lowering of global transportation costs, and the advent of transnational firms that can reorganize production across national boundaries. The bargaining positions of the nations involved in the Uruguay Round will reflect their positions in this shift and their national policies toward it.

The newly industrialized countries, as large potential exporters of basic manufactured products, generally seek a liberalization of trade in these industries. They are joined, to a large extent, by Japan, which has been a successful producer of basic manufactured products (although Japan, too, faces competition from other nations of the East Asian rim). On the other side of this issue are the United States and the European Community, which stand to lose the most from a liberalization of trade in these goods. This division holds by and large for the three basic industries of textiles and apparel, steel, and automobiles. Some exporting countries, however, may prefer that the Multifiber Arrangement be continued as a way of limiting the growth of competing textile and apparel producers in other countries.

But the Uruguay Round discussions will be concerned with more than just the liberalization of trade. One important issue concerns "adjustment" programs for ailing industries. A second issue concerns the preferential treatment of developing countries.

Adjustment Programs

Article XIX of the General Agreement permits programs of import relief to enable industries to adjust to difficulties so long as the programs are temporary and conform to the most-favored-nation principle. Increasingly, however, protection is targeted at specific nations and lives beyond its original intended life. In response to this fact, various authors have encouraged stricter adherence to a formal procedure for industry adjust-

ment in this country.^{33/} Such a program would sanction temporary protection for industries hurt by international trade if predicated on a plan to eliminate excess capacity, reduce and retrain the labor force, change work rules, and modernize existing facilities. Once the adjustment was completed, they would return to free trade. The program could be financed out of general revenues or by tariffs on relevant imports.

Proponents of such a program in the United States contend that it would meet the demand for more protection without creating new (and often permanent) barriers to trade. Opponents maintain that all of the basic industries considered in this chapter have been involved in sequential episodes of protection, but none of them has improved its prospects to the point where it is ready to face unrestrained competition.^{34/} Trade restraints tend to become permanent, as has been the case in textiles and apparel with the Multifiber Arrangement and may yet be the case in steel and automobiles. Opponents also contend that temporary protection would be subject to political abuse and would produce a result no less protectionist than the existing system. They note that such programs in Western Europe have not significantly improved the mobility of resources in those economies, and that even Japan has had difficulty when confronted with the need to downsize its larger industries.

Preferential Treatment

The second issue concerns newly industrializing countries, and how long they should be permitted to continue subsidies and trade barriers in the name of development. The rationale for such measures was to encourage production by basic industries that would substitute for imports. Many developing countries have now become exporters of such products, and no standard exists to determine when the relevant subsidies should be phased out. Some of the newly industrializing countries would argue that export earnings in any one industry are not indicative of their level of overall development, which should be the criterion for determining whether export subsidies are

33. See E.M. Ehrlich and R.C. Scheppach, *New Directions in Economic Policy* (New York: Praeger, 1984); see also G.C. Hufbauer and J.J. Schott, *Trading for Growth: The Next Round of Trade Negotiations* (Washington, D.C.: Institute for International Economics, 1985).

34. For a discussion of the effectiveness of trade protection in improving these industries' international competitiveness, see Congressional Budget Office, *Has Trade Protection Revitalized Domestic Industries?* (November 1986).



to continue. Others would argue that the issue should be settled on an industry-by-industry basis. Thus, if a large and efficient steel industry emerges in a developing country, that country should no longer limit steel imports or provide its steel producers with export subsidies. It could, however, continue to employ subsidies to foster growth in other industries.

IMPLICATIONS OF LIBERALIZED TRADE

Putting an end to trade barriers and subsidies would clearly have an adverse effect on U.S. industries that have benefited from such policies. The shock would be lessened, however, if all countries were to step collectively away from trade restraints. The problem of automobile imports into the United States, for example, may be made worse by the fact that the European Community is far more closed to Japanese automobile production than is the United States. Limiting access to this significant market gives Japanese producers greater incentives to sell in the United States.

Currency movements may also moderate the dislocating effects of trade. As a country's exports increase, the value of its currency tends to rise--making its exports more expensive in terms of other currencies. If currency values were generally allowed to be influenced by trade flows, this would mitigate the effects of trade liberalization on the United States. But some developing countries choose to lower their currency values in order to stimulate exports--sometimes in the name of development, sometimes as part of a program to repay foreign debts. Liberalization of trade in manufactured goods would make this type of interference a matter of greater concern for the industrialized nations.

The degree of international competition varies among industries. Textile and especially apparel industries are labor-intensive, and the low wages in developing countries have given firms there an important competitive advantage. A number of newly industrializing countries have also become significant exporters of steel, and are on the point of emerging as important automobile producers, because of raw material, capital, and other cost advantages.

Apparel manufacturers in developed countries would probably be the most adversely affected by trade liberalization, since with their higher wage rates they cannot match the costs of firms in developing countries. Textile

producers have a smaller cost disadvantage. Certainly some major sectors of these industries would remain viable even without the protection of the Multifiber Arrangement. Tariffs in developed countries for textile and apparel products are substantially higher than for other products. Moreover, technological advances hold the prospect of dramatically reducing the labor intensity of some apparel production.^{34/} Also, in the United States, cooperative agreements among retailers and manufacturers are permitting the domestic textile and apparel industries to respond more rapidly to changes in consumer tastes. Such actions enable retailers to tailor their inventories more precisely to competitive conditions, and may help to compensate for domestic firms' higher manufacturing costs.

The steel industries in the developed countries would probably suffer heavily in the event of a substantial liberalization of trade. Despite substantial modernization, many of the largest U.S. producers are still saddled with old and inefficient production facilities. Moreover, minimills, which do not produce raw steel, are a profitable and rapidly growing sector in the United States; even in the absence of imports, the growth of these minimills could place competitive pressures on the integrated producers. Largely because of government subsidies, European steel producers have more capacity in large modern and efficient mills than do U.S. producers. Nevertheless, there is far too much steel capacity in the world and a substantial liberalization would probably cause significant financial distress to steelmakers in all the developed countries.

The automobile industry shares a number of characteristics with steel. Other developed countries are the principal exporters, and the United States has proved to be an attractive destination. Unlike steel, however, automobiles require the assembly of numerous components: automakers have the flexibility to purchase rather than manufacture many parts and sub-assemblies. Moreover, unlike steel producers, automobile manufacturers make differentiated products. For these reasons, the industry is characterized by a broad line of products and by multinational operations. All the principal Japanese manufacturers now have, or are in the process of establishing, production facilities in the United States, as U.S. manufacturers have done in other countries. Many Japanese parts suppliers are also establishing plants in the United States. Similar trends are also evident in Europe. This strongly suggests that the industry will continue to flourish in developed countries even as it expands in developing countries.

34. See "Getting Competitive," *National Journal*, June 7, 1986, pp. 1360-1365.



Many of the European car manufacturers specialize in producing relatively small and inexpensive cars like those Japan used to enter the U.S. market. This is one reason why Europe has not imported more Japanese cars. Japan's European penetration has also, however, been limited by a variety of explicit and implicit import restraints. If these restraints were relaxed, there would almost certainly be a significant increase in Japanese car exports to Europe.

Many nations that would gain from liberalization of trade in basic manufacturing allow practices that would not be permitted in the United States. Foreign producers often use processes or product designs that would be prohibited under U.S. laws for environmental or safety reasons. Some foreign producers deny workers the right to organize; some countries have maximum wage laws, and place other restrictions on workers' bargaining power. If these issues were brought into the GATT negotiations, or, perhaps more realistically, if the United States were to pursue agreements on them through its own diplomacy, their resolution might offset some of the negative consequences of trade liberalization.

Budgetary Implications

Liberalization of trade in the products of mature industries could have a significant impact on the federal budget. Mature industries receive some direct federal support, primarily for specific research and development projects.^{35/} Indirect support is also provided from the budget through credit programs such as the Export-Import Bank, and through the tax system--although tax reform has diminished the latter. Agreement to limit subsidies or to scrap or amend the Multifiber Arrangement could diminish the justification for these programs.

But the most significant budgetary effects of potential GATT actions would fall primarily in two policy areas: federal adjustment assistance programs, and trade protection through quantitative restraints on imports. In the first area, liberalization of trade would be likely to increase budget outlays; in the second, it would lead to increased revenue.

35. For an analysis of total federal support for commercial activities, see Congressional Budget Office, *Federal Support of U.S. Business* (January 1984). In that report, direct on-budget expenditures for all industries were calculated to be \$13.7 billion in 1984. Over half of that, however, was directed to agriculture. Of the remainder, the programs most affecting mature industries focused on research and development support. See also Congressional Budget Office, *How Federal Policies Affect the Steel Industry* (February 1987), pp. 25-31, for an analysis of direct federal funding of steel research, amounting to about \$26 million annually.

Adjustment Assistance. As discussed in Chapter I, trade liberalization, while improving the overall standard of living, often concentrates losses on the weakest competitive groups in the economy. In the past, trade adjustment assistance has been seen as a tool that would allow a smoother shift of resources from losing sectors to gaining ones. In practice, the U.S. Trade Adjustment Assistance (TAA) program has emphasized cash assistance to overcome temporary dislocation, rather than the retraining of unemployed workers that would increase their mobility.

The TAA program is authorized at \$29.9 million for fiscal year 1987; Title III of the Job Training Partnership Act (JTPA) of 1982 also provides about \$200 million in funding for training so-called dislocated workers. The Administration's 1988 budget proposal would combine the TAA and JTPA programs and increase the combined budget to \$986 million in the first year. Trade liberalization, which might create greater worker dislocation, would increase the demand for such adjustment programs.

Quantitative Restraints. The Congress has recently considered auctioning existing U.S. import quota rights to the highest bidder--in effect, converting quotas to a form of tariff. Such a policy might arouse greater interest if the GATT negotiations were to produce an agreement either limiting the use of quantitative restraints or replacing them with tariffs.^{36/} Current U.S. policies include voluntary export restraints for such mature industries as textiles, apparel, steel, and machine tools. (Japanese export restraints on autos are excluded because they have not been formally agreed to by the U.S. government.) The Congressional Budget Office has estimated that auctioning existing quotas (or imposing an equivalent tariff) could increase revenues by \$3.9 billion in fiscal year 1988 and \$4.7 billion in 1989.^{37/}

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36. Under most conditions auctioning quota rights would have the same effect as an equivalent tariff. Moreover, for purposes of analysis, the two may be calculated in the same way.
37. See Congressional Budget Office letter to Chairman William H. Gray, Committee on the Budget, February 26, 1987. See also C. Fred Bergsten, Jeffrey Schott, Wendy E. Takacs, and Kimberly A. Elliott, *Auction Quotas and United States Trade Policy* (Washington, D.C.: Institute for International Economics, forthcoming). It should be noted that estimates in this book differ from CBO estimates; notably, they include \$2.2 billion in revenues achievable in 1984 through the auctioning of quotas on autos. Current market conditions suggest that even if these restraints were to be formalized by the Congress, the revenue gain might be close to zero.





CHAPTER VI

TRADE IN SERVICES

Expanded trade in services would offer the same benefits as for goods: greater efficiency through specialization. Services trade is not covered by the GATT. The barriers to services are not tariffs or quotas, but national policies that have often been established for other purposes. Efforts to liberalize services trade are hampered by the difficulty of defining services and by the lack of adequate information about them.

Barriers to trade in services vary according to the way services are delivered. Some that are conveyed like goods, such as shipping and air transportation, are already regulated by international agreements. Others that are conveyed through legal arrangements (such as film leasing, or franchises) and those involving the movement of people (such as professional business and financial services) are generally regulated unilaterally by the importing countries. Many of these unilateral regulations create barriers to trade, though not all of them are deliberately established for that purpose.

Bargaining in GATT over services tends to align developed countries against developing countries (although individual countries within these blocs may hold different positions on specific issues). The developed countries, especially the United States, favor liberalizing measures because they have advantages in providing many services that are capital-intensive and require highly skilled labor. Developing countries see little to be gained from this since their advantages lie primarily in low labor costs: for them to provide labor-intensive services to the developed countries, the latter would have (among other things) to liberalize their immigration practices, which they have been reluctant to do.

The service sector has become increasingly important in the U.S. economy. In 1985, services accounted for 50 percent of gross national product, up from 40 percent in 1965. While the United States has seen a dramatic increase in its merchandise trade deficit, it continues to experience a positive balance of trade in services. With services becoming an increasingly important part of its economy, the United States has an interest in promoting freer trade in this area. So far, there is no encompassing multilateral agreement that applies to trade in services; GATT focuses almost exclusively on manufactured goods.



In services trade, the important barriers are not tariffs and quotas. For this sector, policies regarding immigration, investment, currency controls, and regulation loom much larger. Nations often establish policies in these areas for reasons other than commercial advantage. Hence, efforts to liberalize trade in services may reach into other fields of activity, and improvements may come very slowly. This chapter provides an overview of some of the important service sector issues. ^{1/}

DEFINING SERVICES

The definition of a service is elusive. The service sector includes all activities bought and sold in the marketplace that do not involve tangible goods, but it also includes some activities associated with the production of tangibles, such as a consultant's report or a movie. Historically, the collection of statistics on the service sector treated it as a residual category encompassing all output not produced in the merchandise sectors: agriculture, mining, manufacturing, and structures.

A distinguishing feature of most services is that they are usually sold directly by the producer to the consumer, and are not traded over long distances--examples being haircuts, auto repairs, and dining.^{2/} Another, related feature is that services are commonly produced and consumed simultaneously, and cannot be stored--for example, an airplane flight or a banking transaction. Yet neither of these features is definitive; some goods share these characteristics, but not all services share them. In short, the distinction between services and goods is somewhat arbitrary.

Most goods and services have a component of the other in their production processes. Thus the production of steel requires services such as transportation, engineering, and marketing. Only services traded in markets

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1. The discussion treats services generically. Little attempt is made to deal with many of the issues that are unique to specific service industries. Yet, negotiations will necessarily have to take into account both the generic and specific impediments to trade.
 2. See Jagdish Bhagwati, "International Trade in Services and its Relevance for Economic Development," 10th Annual Lecture of the Geneva Association, 1985. For further analysis of how services and goods may differ, and their implications for international trade, see the same author's "Economic Perspectives on Trade in Professional Services" (March 1986, processed) and "Trade in Services and the MTN" (November 1986, processed).

(that is, purchased from outside a firm or individual household) are counted as such in government statistics; services performed "in-house" are not distinguished from goods production. Generally, the important traded services are: travel, transportation, tourism, and leisure; professional business; construction-engineering; telecommunications; information and data-processing; and finance and insurance.

It is generally agreed that the data system for international trade in services is inadequate and that more current, detailed, and comprehensive data are needed in both the public and private sectors.^{3/} The Commerce Department divides data on trade in international services into two broadly defined categories: "business services" and "other services." Business services are dominated by transportation, travel, tourism, and leisure services, and include activities that are provided to foreigners by domestic firms, whether in the United States or elsewhere. The second Commerce Department category, "other services," encompasses interest, profits, and dividend remittances from foreign affiliates to parent firms. "Other services" also includes repatriated profits of domestic firms' foreign manufacturing facilities as well as dividends paid to domestic owners of foreign common stock. Thus it is difficult to determine how much of these "other services" actually come from service activities, and how much is a return on past manufacturing investment.

RECENT TRENDS IN SERVICES TRADE

In 1985 the net balance of trade in services was in surplus by \$21.8 billion (see Table 13).^{4/} This figure, however, was dominated by a net surplus of so-called "other services"--predominantly a return on past investment--of \$21.4 billion. The category of "business services" showed a positive balance of about \$0.3 billion.

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4. Efforts are under way in the Executive Branch to improve services trade data, in accordance with the Trade Act of 1984 (Public Law 98-573).
 5. Data in this section are based on U.S. Department of Commerce balance of payments data. The Office of Technology Assessment (OTA) has reestimated U.S. service trade data, and concluded that federal balance of payments statistics significantly underestimate both exports and imports of services. According to OTA's midrange estimate, 1984 services trade may be understated in official statistics by about \$12 billion. For alternative approaches to improving services trade statistics, see Office of Technology Assessment, *Trade in Services* (Special Report, 1986).



As seen in Table 14, from 1975 to 1981 service exports expanded from \$48.6 billion to \$138.7 billion, while rising as a share of total exports from 31.2 percent in 1975 to 36.9 percent in 1981. In 1985, service exports equaled about 40 percent of total export earnings. Similarly, service imports rose rapidly between 1975 and 1981, and have more recently leveled off at just under 27 percent of total imports. These trends allowed for a net surplus in the U.S. balance of trade in services, with net U.S. service receipts peaking at \$41.7 billion in 1981 (see Table 13).

The fall in net services trade is largely the result of a decline in business services, which decreased from \$9.6 billion in 1981 to \$0.3 billion in 1985 mainly because of greater imports of travel and transportation services. Investment income receipts, although falling by about one-third from 1981 to 1985, now make up almost 99 percent of the total service surplus. If present trends continue, a service trade deficit is likely.

The Office of Technology Assessment (OTA) recently released an important reestimate of services trade data. This estimate expanded both the base of reported transactions and the level of industry detail. The report found that:

TABLE 13. NET BALANCE OF TRADE IN SERVICES
(In millions of dollars)

Category	1981	1982	1983	1984	1985
Business Services	9,631	8,764	6,421	2,190	338
Travel and fares	58	-1,599	-4,595	-7,570	-9,172
Other transport	86	607	-9,632	-1,023	-1,956
Fees and royalties	6,633	4,558	4,502	4,583	4,976
Other services	2,854	5,198	6,146	6,200	6,490
Other Services (Includes investment)	32,111	27,465	23,535	16,023	21,408
Total	41,742	36,229	29,956	18,213	21,746

SOURCE: U.S. Department of Commerce, Balance of Payments Accounts.

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- o The current system of reporting services in the balance of payments is subject to large errors. Business service exports for 1984 were reported by the Commerce Department to be \$43.8 billion, but may have been over twice that amount, between \$69 to \$91 billion by OTA's estimates.
 - o Trade in services has made a significant positive contribution to the U.S. balance of payments. Official statistics show the U.S. with a net surplus of business service exports of \$2.3 billion in 1984, while OTA estimates this surplus at about \$14 billion.
 - o Sales of services in foreign markets by the overseas affiliates of U.S. firms exceed direct exports of services. Thus, any examination of total services trade must consider both direct sales and sales through investment.
 - o The leading services exported directly from the United States were transportation, travel, construction, and licensing. Leading service imports were in transportation, travel, and insurance.
 - o The domestic output of most U.S. service industries far outstrips foreign sales, and in many cases a few large firms earn the dominant share of export earnings.

CURRENT PROBLEMS IN INTERNATIONAL SERVICES TRADE

Merchandise exports are generally produced in one country and consumed in another. In contrast, service exports may be consumed in either the exporting or importing country. Thus, foreigners' purchases of domestic hotel and tourist services are considered exports, and sending workers temporarily to a foreign location to provide a service is also an export.

In goods trade, the tangible product is usually counted (and may be restricted) as it is transported over national boundaries. In services trade, on the other hand, there is often no tangible output to exchange, thus limiting a government's ability to restrict imports. Rather, a service is performed and exchanged over international boundaries in one of the following ways:

- o Cross-border transactions, in which services are transferred from one country to another. This includes the transmission of voice, video, data, or other information, and the transportation of passengers and goods.



- o Cross-border transactions, in which services are transferred from one country to another. This includes the transmission of voice, video, data, or other information, and the transportation of passengers and goods.
- o Contractual arrangements granting rights to use intellectual property and franchises, including transmission of patents, trademarks, films, and broadcast and recording rights.

TABLE 14. U.S. EXPORTS AND IMPORTS, SELECTED YEARS
(In billions of dollars)

Category	1975	1980	1981	1982	1983	1984	1985
Exports							
Merchandise	107.1	224.3	237.1	211.2	201.8	219.9	214.4
Services	<u>48.6</u>	<u>118.2</u>	<u>138.7</u>	<u>137.5</u>	<u>131.5</u>	<u>140.2</u>	<u>144.1</u>
Total	155.7	342.5	375.8	348.7	333.3	360.1	358.5
Percent of Total							
Merchandise	68.8	65.5	63.1	60.6	60.5	61.1	59.8
Services	31.2	34.5	36.9	39.4	39.5	38.9	40.2
Imports							
Merchandise	98.2	249.8	265.1	247.6	268.9	332.4	338.9
Services	<u>34.6</u>	<u>83.2</u>	<u>96.9</u>	<u>101.3</u>	<u>101.5</u>	<u>122.0</u>	<u>122.3</u>
Total	132.8	333.0	362.0	348.9	370.4	454.4	461.2
Percent of Total							
Merchandise	73.9	75.0	73.2	71.0	72.6	73.2	73.5
Services	26.1	25.0	26.8	29.0	27.4	26.8	26.5

SOURCE: U.S. Department of Commerce, Balance of Payments Accounts.

- o In-migration, providing services to foreigners who are temporarily residing in the exporting country. These include hotel accommodations and meals, education, and medical treatment.
- o Out-migration, or travel of individual producers to an importing country. This includes services provided to foreign clients by business consultants, engineers, lawyers, and so forth. Many of the services transacted in this manner are provided through foreign affiliates, either by choice or to circumvent barriers to direct imports.

Barriers to Trade in Services

For the government that wants to protect domestic service firms from foreign competition, the particular means of trade used by various service providers create both obstacles and opportunities for action. Although they may not be directly aimed at limiting imports, the most common barriers that restrain trade in services include restrictive regulations and standards, employment rules such as citizenship and residency requirements, investment-related rules such as right-of-establishment requirements and operating/ownership restrictions, foreign exchange and credit controls, and inadequate protection for intellectual property. The following sections discuss how these barriers are used to block trade for each class of service.

Cross-Border Transactions. Cross-border transactions are conducted in much the same manner as goods trade except that the movement of goods, passengers, or messages in itself constitutes the service traded. Thus, cross-border transactions provide the widest scope for protective government actions, and at the same time for government agreements to limit or define acceptable restrictions. Trade in the telecommunications and transportation industries, for example, is generally limited by government regulation, and the rights of firms to engage in cross-border transactions are generally established in bilateral treaties between countries.

Many of the services included in cross-border transactions--notably communications and transportation--enter markets where there are long-standing government interests and regulations. Domestic transportation and communication systems in most countries are either controlled or owned by the government, and foreign firms are generally prohibited from providing domestic services. In many instances, regulations and restrictions are designed to achieve certain social goals such as national security or to bring about economies of scale, rather than merely to shield public communication monopolies from international competition, although this may also be a



factor. In some cases, regulations are justified by the need to limit the use of scarce resources and provide for public safety.

Some services are already regulated in international commerce. For example, the rights to transport people and goods are established by bilateral international agreements. Frequently, these agreements limit the routes that can be operated between the two countries. They also often place limits on the number of carriers that can operate between the countries and give governments the ability to regulate fares. Foreign carriers are generally prohibited from providing domestic transportation, and severe restrictions are placed on a carrier providing transportation between two foreign points. Additional restrictions are sometimes placed on foreign airlines operations. These include requiring airlines to use existing baggage-handling facilities and to assure nondiscriminatory access to the domestic carriers' reservation systems.

Contractual Agreements. Contractual arrangements generally involve intangible output in the form of ideas and know-how, although leasing of film, broadcast, and recording rights is also included. The common characteristic shared by these services is that they are transmitted internationally through legal arrangements.

Many of these arrangements involve intellectual property. Many U.S. firms complain that they are accorded inadequate copyright and trademark protection in other countries.^{5/} This problem arises mainly with newly industrialized countries such as Korea, Brazil, and Singapore.^{6/} Several of these countries are not members of either the Universal Copyright Convention or the Berne Convention, so foreign firms are not automatically protected against piracy and counterfeiting in these countries.^{7/}

While copyright infringement is not a barrier to trade in and of itself, it amounts to a loss of exports. For example, the U.S. publishing industry estimates that 1984 sales of unauthorized copies of books and technical journals in Korea were approximately \$70 million, while authorized imports were only \$5 million to \$8 million.^{8/} The United States recently signed a

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5. See Chapter III on high-technology trade.
 6. Office of the United States Trade Representative, *National Trade Estimate: 1986 Report on Foreign Trade Barriers*, pp. 35, 171, 227.
 7. The United States abides by the Universal Copyright Convention, but not the Berne Convention. See Chapter III.
 8. Office of the United States Trade Representative, *National Trade Estimate: 1986 Report on Foreign Trade Barriers*, p. 171.

bilateral agreement with Korea that will protect American firms against trademark and patent violations and open Korean insurance markets to U.S. firms. Despite heavy lobbying efforts on the part of the computer manufacturing industry, the agreement did not cover the computer software industry. It allowed Korea to enact a separate law covering computer software that is expected to be consistent with copyright protection.

Similarly, adequate trademark protection is essential to businesses involved in franchising. Franchisors frequently have difficulties conducting business in a country if their emblem or organization symbol has been previously registered as a mark in that country. Private registration effectively limits foreign access to domestic markets. Franchisors may also run into ownership or foreign investment restrictions, and regulations restricting the repatriation of profits.

Motion pictures or television are often leased for transmission in foreign countries. These services also embody a form of intellectual property, and at the same time face some unique barriers because of characteristics they share with goods. They may enter countries much as do goods, and may in fact be embodied in goods. A movie or television show that entered a country on film or videotape would be a good, but if it entered only for lease, the leasing of it would be considered a service. One that entered via satellite transmission would also be a service.

The close connection between motion pictures and goods trade is emphasized by the fact that the GATT (in Article 4) explicitly recognizes that countries may regulate foreign films, and maintain quotas on them. It limits such regulations to screentime quotas that may require a certain percentage of films exhibited to be of national origin. Such quotas, which are used by many countries to limit the showing of American movies and television shows, are open for negotiation or limitation under the GATT.

In-migration and Out-migration. As previously noted, most services require interaction between provider and consumer. Some services involve the movement of people across national borders. In some far-flung service industries, such as computer consulting and engineering, local on-site offices are necessary to provide the service. These service industries face a unique set of barriers.

Services traded through in-migration primarily provide travel, tourism, and educational services in which the consumers travel to the exporting country. Domestic firms face minimal, if any, trade restrictions on these kinds of services.



Services traded through out-migration, such as accounting and engineering, are provided by professionals with special expertise who must be present wherever the service is marketed. Thus, primary barriers to trade serve to restrict the ability of producers to set up professional practice in the importing country. Typical barriers include the requirement of work permits for professional and technical personnel; the stipulation of minimum percentages of local employees; hiring restrictions or quotas; and citizenship or licensing requirements for foreign engineers, lawyers, and other professionals. Other more rigid barriers such as outright bans or quotas are enforced by some countries in specific industries. For example, American lawyers may not open law offices in Japan or consult indirectly on American or international law through existing Japanese law firms.^{9/} In Brazil all foreign firms providing technical services, particularly in construction, are barred unless it can be shown that no Brazilian firm is able to perform the equivalent service. Moreover, all technical service contracts in Brazil must be approved by the Industrial Property Institute, where substantial delays are typical.^{10/}

More generally, firms relying on out-migration may encounter national policies restricting migration, investment, and conversion of currency. Investment and right-of-establishment laws are important barriers because they require providers of many services to establish local facilities in order to compete. Immigration laws must be reckoned with because a company needs people familiar with its operations to staff these facilities initially and to train local labor. Finally, a firm must be able to repatriate its earnings, which will bring it up against currency control provisions.

According to the Office of Technology Assessment report cited above, over half of all service export earnings come from sales through foreign affiliates. In 1983, for example, nonbanking business services produced by U.S. firms (domestic or affiliates) were estimated by OTA to be in the range of \$152 billion to \$169 billion. Affiliate sales were estimated at \$87.5 billion to \$97.3 billion; direct exports were an estimated \$61 billion to \$75.1 billion. Services in which affiliate sales bulked largest were: account-

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9. In May 1986, Japan approved legislation to open its system to foreign lawyers on April 1, 1987. The effectiveness of the new law remains to be seen. *Loc. cit.*, p. 157.
 10. Recently, grievances of this nature have also been expressed with respect to Japan. The U.S. Trade Representative's Office is pressing an unfair trade practice case against the Japanese for denying U.S. firms an "opportunity" to bid on an \$8 billion airport construction project in Osaka. According to administration officials, Japanese procurement practices have totally excluded U.S. firms. *Ibid.*

ing, advertising, data processing, engineering, insurance, investment banking/brokerage, leasing, and retailing.

Existing U.S. Agreements

At present, there is no comprehensive and coherent system of rules governing both service trade and investment. Various sectoral agreements, mechanisms, and organizations exist that govern trade on a bilateral or multilateral basis. Many of these are specific in nature, regulating trade between partners in a particular industry. Others are more inclusive, providing standards of treatment with respect to the establishment and operation of foreign business partnerships in various industries. Existing U.S. investment agreements tend to be of the latter nature: multisectoral and bilateral. In contrast, U.S. service trade agreements tend to be unisectoral and multilateral.

The broadest and longest-standing of bilateral agreements are the Treaties of Friendship, Commerce and Navigation (FCN). These were designed to establish a framework for mutually beneficial economic relations between two countries, and emphasize investment issues such as the right of establishment. Currently, the United States is party to FCN-type treaties with 43 nations, most signed in the late 1960s.

More recent are the Bilateral Investment Treaties (BITs), which cover investment issues in four main areas: national and most-favored-nation treatment for investors; standards for compensation in the event of expropriation; provisions for the transfer of profits and other funds associated with investments; and procedures for settlement of disputes.^{11/} BITs generally apply to all industries in the merchandise and service sectors, but usually include escape provisions for exceptional industries. To date, the United States has signed such treaties with three countries--Panama, Egypt, and Senegal--and has reached preliminary agreements with Haiti and Costa Rica. Negotiations are under way with 11 other countries.

Bilateral agreements applying only to U.S. service trade are few and involve specific industries requiring special equipment or facilities for conveying services from one country to another. These agreements are designed primarily to ensure technical and regulatory compatibility in industries such as aviation, shipping, and telecommunications.

11. These treaties were discussed in a study submitted to GATT by the U.S. government, *U.S. National Study on Trade in Services*, p. 41.



Agreements in service trade are for the most part multilateral, and operate through international bodies and organizations. All such agreements are sector-specific. In several industries more than one agreement is necessary to cover adequately all the issues involved in trading that service.

On a more informal level, the Organization for Economic Cooperation and Development (OECD) has attempted to liberalize trade in services and investment through its Code of Liberalization of Current Invisible Operations and its Code of Liberalization of Capital Movements. Both codes commit members of the OECD to abolish restrictions on long-term capital flows and barriers to invisible transactions and transfers, although neither code is strictly enforceable. The Invisibles Code applies explicitly to only a limited set of service industries, although most others are indirectly covered. For instance, education and franchising are not explicitly listed but many aspects of both are covered under generic headings such as profits remittances. Moreover, both the Invisibles Code and the Capital Code lack provisions regarding issues of consequence to service trade such as the right of establishment, the right to conduct business, and national treatment. Although these topics are expected to be incorporated into the Capital Code shortly, as of now it is mainly concerned with capital flows for both manufacturing and services.

BARGAINING POSITIONS IN THE URUGUAY ROUND

The United States has been the leading advocate of negotiations to expand the GATT to cover services. The European Community and Japan favor this in principle, but have been reluctant and unsure. Third-world countries have been opposed to discussing services liberalization because they see little gain in such negotiations.

The European Community

The governments of the EC began only recently to recognize services as an integral part of their economies, and to appreciate the importance of the financial and tele-informatic sectors to future growth. They have already engaged in multilateral talks, both among themselves and with the United States, to liberalize certain aspects of services trade. The OECD codes and the numerous bilateral investment treaties are the results of such talks.

The EC agrees with the United States, in principle, that the GATT should cover services, but has not taken a firm stance on specific conceptual

issues such as whether agreements should cover all services or only specific subindustries such as insurance, banking, and telecommunications. To some extent, its negotiating position seems to be a response to that of the United States: if the United States has so much to gain by services liberalization, the European Community may have a lot to lose and therefore has reason to proceed cautiously.

The EC has indicated, however, a willingness to reduce present quantitative restrictions on some Japanese goods if the Japanese make reciprocal concessions in insurance, finance, and management consulting. This offer has also been extended to several of the newly industrializing countries.

Japan

The Japanese also appear to support the notion that GATT should include services, but are reluctant to seek any change in the status quo because of the concessions that will be required. They have experienced very rapid growth in recent years in the financial services sector, and might gain from an agreement specifically targeted at financial services. But they have been hesitant to push toward any specific position on services generally, appearing to want to wait and see what kinds of tradeoffs may be involved.

Developing Countries

The developing countries are opposed to including services in the next round.^{12/} A frequently stated position is that the existing merchandise agreement has been a failure in many ways, and efforts should be made to strengthen it before expanding its coverage. Underlying this is the belief that the developing countries have little to gain and much to lose in services negotiations, since they do not have service industries that are sufficiently developed to be competitive in a world market. Significant reductions in their service barriers would open their domestic markets to foreign penetration. The governments of these countries face strong political and cultural pressure to protect vital domestic service sectors, such as banking, telecommunications, and professional services.

12. As with nearly all issues, the developing countries are not likely to put forward a unanimous position. Some, such as Singapore and Hong Kong, may be agreeable to developed-country positions; most, however, will oppose them.



Moreover, the developing countries have little confidence that the industrialized countries will open their markets significantly in sectors such as textiles and steel, or even in labor-intensive services such as agricultural fieldwork or construction where developing countries may have a comparative advantage. They fear that negotiations over services could end in an agreement linking services trade to goods trade in such a way as to allow developed countries to retaliate against developing countries' goods exports in response to what are perceived as barriers to developed countries' services exports. In short, they see themselves losing in services negotiations because this is an area in which they are not competitive, and in which they may be penalized by the developed countries if they try to become so.

IMPLICATIONS OF LIBERALIZED TRADE IN SERVICES

A liberalization of trade in services would involve costs as well as benefits to the United States. For example, an increase in service exports would require domestic firms to hire foreign factors, so that the gains to the U.S. balance of trade might be substantially less than the increase in gross overseas sales. Also, relaxing barriers to service trade could invite a substantial increase in the services offered by foreign firms in the United States. Freer trade in services would be likely to require adjustments in U.S. rules regarding immigration, investment, currency conversion, and other forms of commercial regulation. This section examines some implications of trade liberalization in services.

Expansion of Services Trade

In general, the benefits to the U.S. economy from trade liberalization would be the same for services as for goods: the realization of greater efficiency through specialization in areas of comparative advantage. Since many service industries employ the same resources--notably, specialized labor and capital--that have sustained U.S. competitiveness in other products, and because many U.S. service firms already dominate international markets, it is reasonable to assume that some of these industries would expand under a liberalized trade regime. Such services include (among others): most of the highly skilled professional and business services, air transport, telecommunications, and financial services.

Liberalization would allow service firms to expand more rapidly than they would otherwise; it would also draw more new firms and resources into

the service sector. As a result, the U.S. economy would become even more service-oriented than it is now. In the past decade, over 90 percent of new job growth has been in the service sector. Under trade liberalization, service firms would also have greater access to the capital necessary to sustain their growth.

Some of the growth in the service sector would be a net addition to the economy, but some would be at the expense of goods production. Goods-producing industries, however, might also receive ancillary benefits to the extent that they are tied closely to service output. Such industries include those supplying the service sector with computers, aircraft, telecommunications equipment, and the like, and those having tie-ins to services, such as producers of industrial equipment that U.S. engineers and other business consultants may recommend or prefer to use when they operate overseas. Moreover, many diversified firms have direct links between their service and manufacturing activities, resulting in joint sales.

Removal of service trade barriers might not, however, be as beneficial for the U.S. economy, or even for certain service industries, as at first appears. In cases where services are traded through out-migration, particularly where investment is a necessary requirement of doing business, much of the gain from trade leaks to the importing country. This is because service production tends to rely more heavily than merchandise production on local factor inputs, notably labor. Employment data based on U.S. investment overseas indicate that foreign subsidiaries of U.S. firms predominantly rely on local rather than U.S. labor. ^{13/}

Thus removal of service trade barriers might not benefit the U.S. economy as much if liberalization led U.S. firms to increase sales through overseas affiliates rather than through direct exports. This could occur if trade negotiators focused on liberalizing investment regulations but failed to make progress on issues such as immigration rules or other regulations that are closely tied to direct cross-border transactions.

Moreover, liberalization would offer foreign firms a more favorable climate in the United States, where many obstacles to foreign penetration of service fields now exist. For example, liberalization would imply a relaxation of immigration laws to allow freer access for foreign producers to

13. Although data were only available for majority-owned nonbank affiliates, it is highly probable that affiliates that are not majority-owned also hire fewer U.S. citizens than majority-owned affiliates. Department of Commerce, *U.S. Direct Investment, 1982 Benchmark Survey Data*, p. 251.



U.S. markets. In that case, construction firms in low-wage countries might find it easier to bid on domestic construction projects. Similarly, foreign accountants might be able to provide basic bookkeeping and auditing functions more cheaply than domestic firms. Significant increases in service imports might result, given the large supply of both skilled and unskilled workers from more populous developing countries who would be able to earn higher wages in the United States than at home.

Liberalization of trade rules for services may raise issues of federalism. State governments are responsible for regulating and licensing many service activities, particularly in such fields as banking, accounting, insurance, and legal services. The federal government may not be able to negotiate binding international agreements governing trade in these areas without impinging upon traditional state authority. U.S. trading partners are certain to want clarification of the issue of federal-state authority over services before joining in agreements.

Strategies to Include Services in the GATT

When the GATT was drafted at the end of World War II, services were not seen as important in international commerce. Negotiations focused instead on lowering the primary barriers to goods trade: on multilateral tariff reductions, quota restrictions, and dumping regulations. Consequently, with the single exception of the motion picture industry, GATT rules do not apply explicitly to service industries; they extend to them only insofar as services are involved in the production or trade of goods.

GATT could be altered in several ways to include the service sector. First, the existing rules and principles governing goods trade could be applied to services trade in their existing form--that is, by counting all practices that violate GATT in goods trade as violations in service trade. Dispute and settlement procedures designed to address unfair practices in goods trade would apply in the same manner to services trade. This option would not require elaborate negotiations; it would take advantage of the existing binding, contractual nature of GATT provisions. Only matters pertaining to services, such as investment and immigration, would have to be added to the GATT provisions. On the other hand, many GATT provisions are not directly applicable to services trade, and would not adequately deal with unfair trade practices. Moreover, use of the existing GATT provisions would probably not affect all countries equally, giving some an incentive to evade the rules.

Another approach would be to address services trade on an issue-by-issue basis through dispute-settlement procedures similar to those currently in place in the GATT. Complaints concerning unfair trade practices in services would then be addressed under GATT auspices, leaving the other existing agreements and treaties in force. This approach would enable the GATT to deal with the service sector a bit at a time, addressing each specific industry separately. Given the varying prospects for growth in different service industries, many people believe this is a much more practical approach and one that would hasten negotiations tremendously. Its primary drawback is that it would not create a unified, comprehensive services trade policy that would be viable for years to come. Moreover, it would overburden an already inadequate dispute settlement process.

Finally, a new service-oriented set of rules and procedures could be designed and negotiated under the GATT framework. This option would be viewed by many negotiators as too radical and costly, requiring long negotiations and research. They would argue that current grievances need to be addressed in a timely manner, rather than waiting for a whole new set of rules. Proponents believe, however, that existing GATT articles cannot be directly applied to service industries as a whole, for conceptual reasons. Negotiating a service-oriented set of articles would extend to that sector the basic tenets embodied in the GATT, and would make them binding upon all parties.



