

# THE LIKELY IMPACT ON THE UNITED STATES OF A FREE TRADE AGREEMENT WITH MEXICO

Report to the Committee on  
Ways and Means of the  
United States House of  
Representatives and the  
Committee on Finance of  
the United States Senate on  
Investigation No. 332-297  
Under Section 332 of the  
Tariff Act of 1930

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of a Free Trade Agreement with Mexico**



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## PREFACE

On September 28, 1990, the United States International Trade Commission received a request<sup>1</sup> from the House Committee on Ways and Means and the Senate Committee on Finance to conduct an investigation under section 332(g) of the Tariff Act of 1930 on the likely impact on the United States of a free trade agreement (FTA) with Mexico. In response to the request, the Commission instituted investigation 332-297 on October 10.

The committees noted that such an agreement could have a significant impact on a number of important sectors of the U.S. economy and differing impacts on various regions of the United States. In order to gain a better understanding of the implications of an agreement, the committees requested that the Commission study include:

1. An overview of recent events significantly influencing United States-Mexico economic relations, including a profile of Mexico's trade and investment patterns.
2. A summary of the likely impact of an FTA with Mexico on the U.S. economy in general.
3. A summary of the likely impact on major U.S. industries and other sectors, including agriculture, that would be most affected by the proposed FTA with Mexico.
4. An indication of the regions in the United States that would be most affected by an FTA with Mexico and a summary of the nature of these effects.

Because of Canada's potential role in the proposed negotiations, the committees requested that the Commission also analyze, to the extent feasible, the three-way interrelationship and the impact on United States-Canada and on United States-Mexico trade if Canada does join an agreement.

Copies of the notice of investigation were posted at the Office of the Secretary, U.S. International Trade Commission, Washington, DC 20436, and the notice was published in the *Federal Register* (55 F.R. 42078) on October 17, 1990.<sup>2</sup> The Commission did not hold public hearings in conjunction with this investigation.

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<sup>1</sup> See app. A.

<sup>2</sup> See app. B.



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# EXECUTIVE SUMMARY

## Introduction

The idea of the United States and Mexico entering into a free trade agreement has evolved from a distant goal to a serious possibility in a relatively short time. Less than 5 years ago, Mexico was mired in debt and committed to a highly interventionist economic policy that discouraged imports and limited foreign participation in the Mexican economy. In recent years, however, Mexico has reduced state intervention in the economy and opened its market to foreign goods, services, and investment. Mexico also entered into a series of trade negotiations with the United States. Largely as a result of these events, two-way trade between the United States and Mexico has grown significantly.

Negotiation of a free trade agreement (FTA) is now the primary mechanism being considered for expanding bilateral trade and investment between the United States and Mexico. On June 10, 1990, President Bush and Mexican President Salinas de Gortari endorsed a comprehensive bilateral FTA as the best means to strengthen economic relations and meet the challenges of international competition. Subsequently, Canada, which already has an FTA with the United States, requested participation in the negotiations. On September 25, 1990, President Bush formally requested Congress to allow the use of the so-called fast-track procedure for negotiating an FTA with Mexico and to explore the possibilities of Canada joining an agreement. It is anticipated that the Congress will have to disapprove the use of the fast-track procedure by spring 1991 or else it will be approved automatically. However, the authority granted the President to use the fast-track procedure expires on June 1, 1991 and would have to be extended to apply to any agreement. A decision on Canadian participation will probably be made soon.

The Commission analysis suggests that an FTA with Mexico will benefit the U.S. economy overall by expanding trade opportunities, lowering prices, increasing competition, and improving the ability of U.S. firms to exploit economies of scale. Since these gains are likely to outweigh the costs, the U.S. economy will probably gain on net. However, there are likely to be some shifts in production so that certain U.S. industries—such as horticultural products—will be disproportionately affected by an FTA.

The relative importance of the bilateral trading relationship between Mexico and the United States and the relative sizes of the two economies imply that the relative magnitude of effects of an FTA would be significantly smaller for the United States than for Mexico. Mexico is the United States' third-largest trading partner, after Canada and Japan, but it accounted for just 6 percent of U.S. imports and 7 percent of U.S. exports in 1989. In contrast, the United States accounted for more than two-thirds of Mexico's exports in 1989. Mexico's gross domestic product (GDP) of \$187 billion in 1989 was only 3.6 percent of U.S. GDP.

## Likely Impact on the U.S. Economy Overall

An FTA would benefit the U.S. economy overall, but for two major reasons the benefits relative to the size of the U.S. economy are likely to be small in the near to medium term. First, in spite of Mexico's population of some 88 million, as discussed above its economy is much smaller than the U.S. economy. Second, with a few exceptions, both countries already have relatively low tariff and nontariff barriers to trade with each other. A sizable share of U.S. imports from Mexico already enters the United States either free of duty unconditionally, under the Generalized System of Preferences (GSP), or at substantially reduced effective rates under maquiladora production-sharing arrangements. Similarly, many U.S. exports to Mexico are afforded duty-free treatment in Mexico under the maquiladora program. Since 1985, Mexico has significantly reduced tariffs and the number of products subject to import permits. Mexico has also liberalized the administration of its foreign investment regulations. The relatively low barriers already allow most of the benefits of trade between the two countries to be realized and therefore limit the potential benefits to the United States of an FTA.

Many observers believe that Mexico's economy will grow rapidly in the coming years because of its recent economic reforms, whether or not an FTA is adopted. If Mexican growth is forthcoming, Mexico will become a larger trading partner of the United States and the increased trade will benefit the United States. The United States is likely to be the single largest foreign beneficiary of such growth, since it is by far Mexico's most significant source of imports and investment capital. The United States accounted for over 70 percent of Mexico's imports in 1989, and for some 63 percent of all accumulated direct foreign investment in Mexico.

An FTA would probably increase Mexico's rate of growth and thereby increase the benefits to the United States over time. For example, an FTA is likely to increase both domestic and foreign investment in Mexico. By codifying liberal trade and investment policies in an international agreement, heretofore adopted only as a matter of administrative policy, a United States-Mexico FTA would increase the confidence of investors in Mexico's economy. An increase in investment in Mexico would raise wage incomes and employment in Mexico, increase GDP growth, increase foreign exchange earnings, and facilitate the transfer of technology. In so doing, it would increase Mexico's demand for U.S. exports and benefit the United States. Nevertheless, for many years the effects would probably still be fairly small relative to the size of the U.S. economy.

An FTA with Mexico could have a greater impact on certain U.S. industries and regions than it has on the U.S. economy overall. The strongest effects on U.S. industries would likely be where current barriers to trade and investment are high or where demand for each others' products and services is highly sensitive to price. Regions with a high concentration of such industries or where trade with Mexico accounts for a substantial portion of economic activity are likely to be disproportionately affected.

#### *Likely Impact on U.S. Labor Markets*

An FTA is likely to have little or no effect on employment levels in the United States, but it could cause some shifts in employment among occupations and could affect wage rates and the level of immigration from Mexico. An FTA is likely to decrease slightly the gap between real United States wages and Mexican wages of both skilled and unskilled workers combined, but a greater share of the wage adjustment would occur in Mexico than in the United States. As wage differentials between the United States and Mexico narrow, the incentive for migration from Mexico to the United States will decline. Real income for U.S. skilled workers and capital service owners is expected to rise. Preliminary analysis indicates that the real income for unskilled workers in the United States is likely to decline slightly, although some plausible scenarios suggest that it could actually increase. Total real income in the United States would increase because of the trade creating effects of the FTA.

#### *Likely Impact on U.S. Trade with Third Countries*

The increase in United States-Mexico trade resulting from the reduction of trade barriers under an FTA would partly displace U.S. trade with other countries, including Canada and those in Central and South America, the Caribbean, and Asia. The fact that some of these countries already benefit from U.S. tariff preference schemes such as the GSP and the Caribbean Basin Economic Recovery Act (CBERA) may limit the amount of displacement. Moreover, only some of this displacement is expected to result in a loss of welfare associated with trade diversion—a shift from a lower cost supplier to a higher cost supplier. Since the displacement itself is expected to be small, it should have only a minor negative effect on the U.S. economy. It should be noted, however, that the U.S. market is vital to many countries and exporters. The relative benefits of tariff preference schemes, such as the GSP and the CBERA, to these third countries are likely to decrease. Some U.S. trading partners are concerned that any loss in sales to the United States as a result of a United States-Mexico FTA could hurt foreign suppliers.

Some U.S. producers have expressed concerns that a United States-Mexico FTA could allow third countries to circumvent U.S. tariffs and other trade barriers by transshipping their goods through Mexico to the United States or by using Mexico as a base for processing and export to the United States. The nature and the enforcement of the rules of origin in the agreement will determine the degree to which third countries will be able to access the U.S. market by these means.

## Likely Impact of Canadian Participation

Following the United States-Mexico decision in June 1990 to actively pursue negotiations toward a bilateral FTA, Canada requested participation with a view to negotiating a North American FTA. Two-way trade between the United States and Canada totaled some \$163 billion in 1989, more than 80 times as great as Canada-Mexico trade of \$2 billion. Canada hopes that a trilateral FTA would preserve its access to the U.S. market under the United States-Canada FTA. Canada wishes to avoid a loss to Mexico of U.S. trade and investment, which might occur should the United States become the sole North American locus with duty-free access to all three markets. Though small, Mexico has reportedly emerged as a competitor for Canada's share of U.S. markets for some products, such as autos and auto parts. Among other things, Canada would also like FTA negotiations to address tariffs, rules of origin, textiles and apparel, intellectual property rights, standards, dispute settlement procedures, and longer term questions such as future energy flows. In many of these areas the United States and Canadian economies are already closely aligned.

Canada's interest in a trilateral FTA also rests on its desire to participate in any North American dialogue on trade. Canada wants to be a part of any process that may eventually broaden market access to Central and South America. Although Canada hopes to gain from trade with Mexico in the long run, most analysts foresee relatively small short-term benefits because of the size of current Canada-Mexico trade.

Initial analysis suggests that the effects on the United States of free trade with Mexico and with Canada would be similar regardless of whether the United States concludes separate bilateral agreements with Canada and with Mexico or reaches a trilateral agreement. The only major difference would be that under separate bilateral agreements U.S. trade with both countries would be slightly greater than under a trilateral FTA because Mexico and Canada would maintain barriers on trade with each other.

U.S. trade with Canada is likely to decrease as a result of displacement by goods produced in Mexico under either the bilateral or the trilateral scenario. However, this decrease in U.S. trade with Canada would probably be slightly greater under a trilateral FTA.

## Likely Impact on U.S. Regions

### *Southwest Border Region*

The Southwest border region of the United States is vitally linked both geographically and economically to Mexico. As United States-Mexico trade increases under an FTA, trade-related activities along the border will also expand. However, an FTA could hurt other segments of the U.S. border economy.

- Mexico's maquiladora industry represents a large part of the region's economic base. An FTA could lead to an expansion of maquiladora production in Mexico, but would reduce the incentive for such firms to locate themselves near the border. However, incentives for investment to move closer to Mexican population centers in the interior and away from border infrastructure bottlenecks could be matched by incentives to remain along the border, such as proximity to existing border suppliers and services. Major maquila industries include electronics, automotive products, and apparel.
- Reportedly, U.S. firms currently supply about 98 percent of the raw materials and components used by maquiladoras. By eliminating U.S. tariffs on the non-U.S. value-added component of maquiladora exports to the United States, an FTA would tend to reduce the incentive to use U.S. raw materials and components.
- Retailing accounts for more than one-fourth of employment in the border region. Over one-third of retail sales in the U.S. border region are made to Mexicans. An FTA would tend to reduce some of the current advantages for U.S. retailers in serving Mexican consumers. However, any short-run losses would probably be offset in the longer term as retailers benefit from overall increased growth in the border region. Smaller U.S. retailers could be more vulnerable to Mexican competition than larger retailers.

- An FTA will increase United States-Mexican trade and thereby raise demand for trade-related activities along the border, including transport, warehousing, and other services. Additional pressure will likely be placed on already strained border transport systems and entry facilities.
- Agriculture constitutes only a small fraction of the region's economy. Generally speaking, the problems and opportunities created by a United States-Mexico FTA are not centered in the border region. However, there is some concern that an FTA with Mexico will reduce the availability of Mexican migrant labor on U.S. farms in the region and strain already scarce water resources along the Texas border.

### *U.S. Census Regions*

The Commission's sectoral analysis indicates that a United States-Mexico FTA will likely have negligible effects on the domestic operations of 17 of the 19 industries studied. It is expected to have a moderately negative effect on the horticultural products industry and will have an uncertain effect on the auto and auto parts industry. Based on these expected effects, as well as the regional concentration of the horticultural products industry and the expectation that an FTA would probably have a positive but small effect on the economy overall, it is unlikely that an FTA would have a significant positive or negative effect on the economy of any U.S. region.

### *The Industrial Midwest*

The auto and auto parts industry is particularly important to the East North Central region, or "industrial midwest," but uncertainty about the effects of an FTA on this industry leaves uncertainty about the effects on this region. Although it is unlikely that the effects in the auto and auto parts industry would be great enough to affect significantly the economy of the region, the effects in the East North Central region could be slightly different from the national average.

## **Likely Impact on Major U.S. Industries**

Although Mexico has liberalized its trade and investment policies in recent years, barriers to trade and/or foreign investment remain in industries such as agriculture, automotive products, energy products, banking, and transport. The removal of these Mexican trade and investment barriers, as well as U.S. barriers, under an FTA has the potential of creating additional trade between the two nations in affected industries. However, it is possible that U.S. investments and export opportunities in Mexico arising from an FTA will be limited, at least in the short term, given the underdeveloped state of Mexico's infrastructure.

The Commission analyzed the likely impact of an FTA with Mexico that removed United States and Mexican trade and investment barriers, for 19 key manufacturing, services, and agricultural industries.<sup>1</sup> The analysis focused on the likely impact of an FTA on U.S. trade with Mexico, Canada, and other countries and on production and employment levels in U.S. industries. The evaluation was based on (1) a quantitative analysis of relationships between expected changes in import and export prices due to removal of tariffs and NTBs and the resultant changes in U.S. import and export levels of affected industries; (2) interviews with experts in industry, trade, government, and academia; and (3) a qualitative analysis of nonprice factors such as investment restrictions that may influence the development of U.S. trade in particular industries. The analysis estimated the losses under an FTA (the likely increases in U.S. imports and resulting declines in U.S. production) and the gains (the likely increases in U.S. output resulting from increased U.S. exports to Mexico).<sup>2</sup>

<sup>1</sup> Some of the industries covered in the analysis were identified by the House Ways and Means Committee and the Senate Finance Committee in their joint letter to the Commission requesting the study. Other sectors were added by the Commission staff.

<sup>2</sup> The quantitative analysis was used to assess trade and production impacts at the national level and not at the regional level. To conduct a rigorous and systematic analysis at a regional level would have required a different modeling approach and a different set of data not readily available. A qualitative analysis was conducted on the basis of the geographic concentration of the U.S. industries. It was assumed that the impact would be proportional to the regional distribution of the industry's domestic operations.

In carrying out the quantitative analysis, the Commission used the effective rate of duty on U.S. imports from Mexico, rather than the nominal rate, to account for the relatively large amount of trade that enters duty free under the GSP or at reduced duties under the maquiladora program. Under this production-sharing program, U.S. components enter Mexico duty free for processing or assembly and the finished or semifinished goods enter the United States on a preferential basis with only the value added in Mexico subject to duty.<sup>3</sup>

The Commission also made two key assumptions in its analysis. First, it assumed that Canada would participate in the negotiation of an FTA, thereby resulting in a North American free trade area. Second, it assumed that the rules of origin adopted under an FTA with Mexico would be similar to those under the United States-Canada FTA.<sup>4</sup> In addition, the Commission was unable to factor into the analysis any changes in tariffs and NTBs that can be expected from the Uruguay Round negotiations, because of the remaining uncertainty over the results of the Round. However, to the extent that the Uruguay Round reduces tariffs and NTBs, the additional effect of an FTA with Mexico will be less pronounced.

The estimated quantitative effects of an FTA on the covered industries are reported in three qualitative categories: negligible, moderate, or significant in either a beneficial or adverse direction. Estimates are provided for adjustments in the short term, defined as adjustments within 1 year, and in the long term (those that would occur within 5 years).

The results of the Commission's analysis show that an FTA with Mexico may have moderate to significant effects on U.S. trade with Mexico in many of the industries covered. However, these trade gains or losses, though considerable in absolute terms for industries such as grains, electronic equipment, machinery and equipment, steel mill products, and textiles and apparel, would likely have a negligible impact on production levels in most of the U.S. industries, both overall and regionally. This is because the expected gains or losses in U.S. trade with Mexico would represent a very small share of these industries' domestic production. The industry that would be most affected by an FTA with Mexico is horticulture. In addition, several subsectors of the covered U.S. industries such as the tuna industry and producers of inexpensive household glassware would likely be affected. The analysis also shows that an FTA with Mexico would likely have a negligible impact on U.S. trade with Canada in almost all the industries. The impact on U.S. trade with other third countries would also be negligible, except for horticultural products and tuna. The results of the Commission's analysis for each industry are briefly discussed below.

## *Agriculture*

An FTA is expected to affect significantly the level of U.S. trade with Mexico in agricultural products. Mexico is the second-largest foreign supplier to the U.S. market for these products after Canada, and the third-largest U.S. export market after Japan and the Soviet Union. About 40 percent of the agricultural imports from Mexico enter free of duty. The remainder are dutiable at a trade-weighted average of 7 percent ad valorem. Mexico's trade-weighted duty on U.S. agricultural goods averages 11 percent. Also affecting U.S. agricultural trade with Mexico are NTBs, such as U.S. marketing orders, Mexican import-licensing requirements, and both countries' phytosanitary rules.

## **Horticultural Products**

Mexico is by far the largest foreign supplier, and the seventh-largest U.S. export market for horticultural products such as fresh and processed fruits and vegetables. Duties imposed by both the United States and Mexico are relatively high. NTBs such as U.S. marketing orders, Mexican import-licensing requirements, and phytosanitary rules in both countries also limit bilateral trade. The elimination of tariffs and NTBs under an FTA would generate a significant increase in U.S. imports from Mexico and a moderate increase in U.S. exports to Mexico. Mexican producers are able to supply the U.S. market with many of the same

<sup>3</sup> U.S. imports from Mexico under the maquiladora arrangement are dutiable under subheadings 9802.00.60 and 9802.00.80 of the Harmonized Tariff Schedule of the United States (HTS), formerly known as the 806.30 and 807.00 provisions.

<sup>4</sup> The rules of origin under the United States-Canada FTA are used to determine whether goods traded between the two nations are eligible for preferential duty treatment under the FTA. In general, to be entitled to such treatment, goods must be made wholly in one or both FTA nations or, if the goods contain third-country materials, the materials must have been transformed in one or both FTA nations in a manner that is physically and commercially significant to effect a change in tariff classification in the HTS.

products grown or processed in the United States at much lower costs. This is particularly true for citrus crops and winter vegetables that are manually harvested. U.S. growers of these products are expected to experience losses in production, particularly growers in Florida, California, and other warm-climate States who compete directly with products during the same growing seasons in Mexico. U.S. processors of these crops are also expected to experience production losses. An FTA with Mexico would also likely cause a decline in U.S. imports from Latin American nations that tend to export the same type of products as Mexico.

U.S. producers of temperate-climate products and certain processed products such as canned potatoes and dried beans are likely to benefit moderately in the long term from an opening of the Mexican market. In the short term, however, the underdeveloped channels of distribution and the unequal distribution of consumer income in Mexico may limit U.S. export potential.

### **Grains and Oilseeds**

About two-thirds of U.S. agricultural exports to Mexico consist of grains and oilseeds, for which the United States is the world's largest exporter. Both countries maintain import quotas on grains and oilseeds, although the U.S. quotas apply only to peanuts. Tariffs generally average less than 10 percent ad valorem in Mexico and less than 2 percent in the United States. Both countries also maintain extensive government-support programs for farmers that affect trade in these products. An FTA that eliminates these barriers would likely result in a significant increase in U.S. exports, particularly of corn, sorghum, and soybeans. However, the expected export growth would represent a small share of total U.S. production of grains and oilseeds. U.S. imports of these goods from Mexico would only be negligibly affected, because of Mexico's poor endowment of arable farm land suitable for such crops.

### **Livestock**

Mexico is a major U.S. trading partner in livestock (i.e., cattle, swine, sheep, and lambs) and meat derived from such animals. Mexico supplies all but a small part of U.S. imports of feeder cattle and is the second-largest export market for U.S. meats. U.S. tariffs on imports of feeder cattle average about 1.5 percent ad valorem. Mexico also currently charges a fee on its exports of cattle, of 5 percent ad valorem. Mexican tariffs on U.S. meats range from 10 to 20 percent.

Removal of Mexico's relatively high tariffs on meats under an FTA would likely result in a moderate increase in U.S. exports of meats to Mexico. Similarly, the removal of U.S. duties and Mexican export fees on feeder cattle would likely result in a moderate increase in U.S. imports of such cattle. The expected growth in imports might benefit the U.S. cattle feedlot subsector, but could harm the cow-calf subsector, which produces feeder animals. Farmers concentrated in the Southwest and Southcentral States, where most of the imports enter, could be most affected. In addition, U.S. imports of Mexican meats might also increase under an FTA, especially now that U.S. restrictions on such shipments have been lifted for several Mexican meatpacking plants.

### **Fish and Fish Products**

Mexico is the third-leading supplier of U.S. imports of edible fish and fish products. Most of these imports from Mexico enter free of duty, with the exception of canned tuna. U.S. imports of canned tuna packed in oil are subject to a duty of 35 percent ad valorem and imports of tuna packed in water are subject to a tariff-rate quota of 6 percent on those under quota and 12.5 percent for those over quota. In addition, U.S. trade with Mexico in fisheries products, especially tuna, is affected by disputes over territorial rights and the killing of dolphins during tuna harvest.

The overall impact of an FTA on U.S. imports of Mexican fish and fish products would likely be negligible. However, removal of U.S. duties on canned tuna would likely lead to significant growth in U.S. imports of Mexican tuna. The expected import growth would likely result in significant harm to the U.S. tuna industry, particularly to the cannery in California and, to a lesser extent, the canneries in Puerto Rico. However, an FTA that increases U.S. access to Mexico's 200-mile fishery zone would likely lead to a moderate increase in U.S. production of frozen tuna.

## **Alcoholic Beverages**

An FTA would likely spur U.S. exports of alcoholic beverages to Mexico. These exports have grown rapidly since 1985, in response to Mexico's reduction or elimination of many of its duties and NTBs. This trend is expected to continue under an FTA, as Mexican duties are further reduced and distribution arrangements in Mexico improve. The likely impact of an FTA on U.S. imports from Mexico is expected to be negligible, primarily because U.S. duties on alcoholic beverages are already low.

## **Automotive Products**

Mexico is a small, but rapidly growing supplier of autos to the United States. During 1985-89, U.S. imports of autos from Mexico rose at an average annual rate of 34 percent to almost 143,000 units, valued at \$1.3 billion. The auto industry in Mexico is owned by five foreign producers, the Big Three U.S. automakers, Nissan, and Volkswagen, which assembled 641,000 autos there in 1989. U.S. trade with Mexico is also expanding rapidly in auto parts, with U.S. imports rising by 14 percent annually, to \$3.6 billion, and U.S. exports advancing by 16 percent annually, to \$3.4 billion. The auto parts industry in Mexico comprises several hundred firms, with U.S.-owned auto parts firms playing a major role in the industry. The industry, along with the electronics industry, generates more value-added in Mexico's maquiladora sector than any other industry.

The most significant factors affecting U.S. trade with Mexico in automotive products are Mexican foreign investment restrictions, export performance requirements, local content rules, and import restrictions. Automakers in Mexico must maintain trade surpluses. For each dollar's worth of autos that automakers import into Mexico during 1991, they must earn \$2.50 in foreign exchange from auto exports. Mexico currently limits auto imports to 15 percent of total Mexican auto sales and prohibits imports of autos with engines less than 1.8 liters until the 1993 model year. Mexico also limits foreign investment in the auto parts industry to 40-percent equity participation, with some exceptions. In the maquiladora sector, full foreign ownership is permitted provided that at least 80 percent of the output is exported. In addition, Mexico requires at least 36-percent Mexican content in the value added in the country by automakers and auto parts producers.

These trade and investment restrictions in Mexico, coupled with other economic and political factors, have significantly influenced the evolution of the Mexican automotive products industries and, at the same time, currently limited their integration into the greater North American automotive products sector. Because the auto market in Mexico is small and diverse, automakers in Mexico produce a relatively diverse number of models—at low volume levels—to meet consumer preferences. Consequently, the auto plants primarily serving the Mexican market are marked by relatively low operating efficiencies. Their output currently averages less than half the standard output of modern plants around the world.

Thus, the most significant impact of an FTA in automotive products could come from liberalization of the above-referenced Mexican barriers to trade and investment. However, the likely impact of an FTA with Mexico on the United States in automotive products is difficult to determine without knowledge of the Big Three automakers' plans for their Mexican operations. It is also difficult to assess the impact of an FTA with Mexico on U.S. trade in automotive products with Canada, given the highly integrated nature of the Big Three U.S. automakers' operations in the United States and Canada. Other auto producers have not announced their manufacturing strategies in the event of an FTA with Mexico. U.S. auto industry representatives view Mexico as a long-term, high-growth market for autos. They also believe that the potential exists for the Mexican auto industry, with its low labor costs, to become an integral part of the North American auto industry. The pace of integration would likely quicken if an FTA removes Mexico's NTBs. An FTA would likely encourage the Big Three to restructure their Mexican operations to increase their specialization, thereby achieving economies of scale and, in turn, enhancing their competitive position vis-a-vis Asian and European producers.

## **Cement**

Mexico is a major supplier of cement to the United States, especially in the southwestern and southern border and coastal regions where it has captured 11 percent of the market. All but a small part of U.S. imports from Mexico are supplied by CEMEX, the largest cement

producer in the Western Hemisphere, which also maintains extensive operations in five U.S. border States. U.S. imports from Mexico, totaling \$118 million in 1989, already enter free of duty, although they are subject to U.S. antidumping and countervailing duty orders. By contrast, U.S. exports to Mexico, totaling a much smaller \$2 million, are dutiable at 10 percent ad valorem.

An FTA with Mexico would have no impact on U.S. imports of cement from Mexico, but would lead to a significant increase in U.S. exports to that nation. The expected export growth would, because of the regional nature of the cement market, benefit U.S. producers located near the United States-Mexican border. However, the expected export growth would represent only a negligible portion of U.S. shipments, both overall and for the regional industry.

### *Chemicals*

U.S. trade with Mexico in chemicals, marked by a surplus of \$1.6 billion in 1989, is affected by Mexican restrictions on foreign investment and inadequate protection of intellectual property rights. The Constitution of Mexico prohibits foreign investment in production of basic petrochemicals, for which the United States is the world's largest producer, and of a few secondary petrochemicals. In pharmaceuticals and specialty chemicals, the lack of intellectual property rights protection has discouraged foreign investment in Mexican production.

An FTA that removes Mexican restrictions on foreign investment and protects intellectual property rights would likely spur U.S. investment in Mexico for the manufacture of high-technology products and generate moderate growth in U.S. exports. Such investments would likely stimulate a complementary increase in U.S. exports of chemical intermediates for the production of high-technology products, since such intermediates are not made in Mexico. The long and costly startups associated with the construction of chemical production facilities, however, would delay any investment-related impact on trade in the short term. The removal of Mexico's duties, though averaging a rather high 15 percent ad valorem, would not by itself lead to a noticeable increase in U.S. exports to Mexico, because of the importance of existing supplier-customer relationships in purchasing decisions. An FTA would likely result in a negligible increase in U.S. imports of Mexican chemicals because U.S. duties average a relatively low 4 percent ad valorem.

### *Electronic Equipment*

An FTA with Mexico would likely result in a negligible increase in U.S. imports from Mexico. U.S. trade with Mexico in electronic products, totaling \$8 billion in 1989, takes place mostly under the maquiladora program. The nominal U.S. tariff on Mexican electronic goods averages 5 percent ad valorem, although some duty rates are as high as 15 percent. The effective trade-weighted duty averages only 2 percent, given the large portion of the trade that enters at reduced duties under either the maquiladora or GSP programs.

U.S. exports to Mexico, on the other hand, would likely grow moderately in the short run and significantly in the long run. Mexican duties on electronic goods average an estimated 16 percent. The difference between U.S. and Mexican duties partly explains the different growth that can be expected, as does the significant need and demand in Mexico for modern equipment, such as in the telecommunications area. Elimination of Mexican "buy national" policies and local content rules would also serve to expand the market in Mexico for U.S. exports. U.S. producers of telecommunications apparatus, office machines, and other advanced-technology equipment for use in Mexico's infrastructure would likely benefit the most.

### *Energy*

The United States is a major market for Mexico's energy products, such as crude petroleum and refined petroleum products. It is also a major source: almost half of Mexico's demand for refined petroleum products and 90 percent of its total imports of natural gas are supplied by the United States.

United States and Mexican duties on energy products are relatively low and, thus, their removal under an FTA would likely have a negligible effect on bilateral energy trade. The major deterrent is Mexico's constitutional ban on U.S. and other foreign investment in its energy sector, operated solely by the national oil company, PEMEX. Assuming that an FTA does not open the Mexican energy sector to U.S. investment, opportunities for trade expansion would remain limited.

### *Glass products*

Mexico is an important U.S. trading partner in glass products, ranking as the United States' fifth-largest foreign supplier and the third-largest export market. Most U.S. imports of glass products from Mexico enter duty free under the GSP. The major exception is household glassware, for which U.S. duties average 22 percent ad valorem. Mexico's duties average 20 percent for all glass products. The removal of these duties under an FTA would likely result in a significant increase in U.S. imports of household glassware from Mexico. Although the expected import growth would likely have a negligible impact on the overall U.S. industry, it could have an adverse impact on U.S. producers of inexpensive household glassware. In addition, the expected import growth is likely to be greater and more immediate than any potential increase in U.S. exports to Mexico, which are limited because of the dominance in the Mexican market of Mexico's largest producer. The lack of an effective distribution system for U.S. products and the smaller size and purchasing power of the market in Mexico also limit U.S. sales prospects.

### *Machinery and equipment*

The machinery and equipment sector is expected to remain a key element of U.S. trade with Mexico, given that nation's need for capital goods to modernize its production and infrastructure base. An FTA that results in the removal of Mexico's import-licensing requirements and duties of 10 to 20 percent ad valorem, coupled with Mexico's improved prospects for economic growth, would likely lead to a moderate increase in U.S. exports of machinery and equipment to Mexico. The expected export growth would likely benefit U.S. producers of major household appliances and capital goods such as machine tools and general industrial equipment. The potential for U.S. export growth also exists in farm and construction machinery and in food processing, plastics injection molding, and pollution control equipment.

The removal of U.S. duties under an FTA would likely result in a negligible increase in U.S. imports of machinery and equipment from Mexico. The trade-weighted U.S. duty on imports of Mexican machinery and equipment averages only 3.35 percent ad valorem. Moreover, the expected increase in imports from Mexico would likely be concentrated in low-valued, low-technology products such as general components and home appliances. In the long run, and assuming that an FTA does not result in the equalization of wages and health, safety, and environmental standards, U.S. firms may accelerate the process of producing more finished machinery and equipment in Mexico.

### *Steel Mill Products*

Mexico has been one of the largest markets for U.S. exports of steel mill products (steel), accounting for about 17 percent of all such exports in 1988 and 10 percent in 1989. Mexico's steel exports to the United States have been limited to less than 1 percent of apparent U.S. steel consumption since 1985 under a voluntary restraint agreement (VRA) scheduled to expire in March 1992. U.S. tariffs on steel range from 0.5 percent to 11.6 percent ad valorem and Mexico's duties range from 10 to 15 percent.

An FTA that removes tariffs, coupled with the expiration of the VRA, is likely to result in a moderate short-term increase in both U.S. imports from and U.S. exports to Mexico. The long-term impact is likely to be more significant as new market opportunities are pursued and trading relationships develop. The expected export growth is likely to be concentrated in non-flatrolled products for construction applications (e.g., structurals and wire products), certain tubular products for energy applications, and in higher value sheet products for use in autos and appliances. The projected increase in imports from Mexico is likely to consist of products currently subject to relatively high U.S. tariffs, such as high-value specialty steels, and also price-sensitive products such as plate, bar, rod, wire products and certain tubular products. The trade shifts likely to occur under an FTA are small relative to overall U.S. trade and

production. Thus, they are expected to have a negligible effect on the U.S. industry and on U.S. trade with other foreign suppliers.

### *Textiles and Apparel*

U.S. trade with Mexico in textiles and apparel primarily occurs under the maquiladora program. U.S. and Mexican duties in this sector are relatively high and U.S. imports of Mexican products are subject to quantitative limits under the Multifiber Arrangement. U.S. duties average 15 percent ad valorem for textiles and apparel. However, the effective trade-weighted rate is only 6 percent. Mexican duties average from 12 to 18 percent for textiles and 20 percent for apparel.

Elimination of duties and quotas under an FTA would give further impetus to U.S. imports of textiles and apparel from Mexico, which grew at an average annual rate of 19 percent during 1985-89. The expected import growth would likely displace some U.S. production and third-country imports of lower cost apparel and textile products, notably those from the Caribbean Basin. However, the overall impact on the U.S. industries would be negligible, given that the trade with Mexico is small relative to U.S. output. An FTA would also result in a significant short-term increase in U.S. exports of textiles and apparel to Mexico, which rose by 25 percent annually during 1985-89. The projected export growth would likely be concentrated in components for use as inputs in maquiladora operations producing garments and other textile products for export to the United States. In the long term, the growth of U.S. exports to Mexico would likely moderate as the Mexican textile industry becomes more developed.

### *Services*

U.S. trade with Mexico has traditionally been limited primarily because of Mexican limitations on foreign ownership and other restrictive NTBs. An FTA, coupled with recent Mexican efforts aimed at privatizing and liberalizing several services sectors, would likely lead to an increase in investment and export opportunities in Mexico for U.S. firms. However, since trade in services with Mexico is minuscule relative to U.S. output of services, the overall economic impact on U.S. services sector will be negligible.

In banking, U.S. exports of services to Mexico would likely expand at a moderate rate if an FTA removes Mexican restrictions on foreign investment and if Mexico continues to revitalize its financial services industry. Similarly, if the existing NTBs in insurance are removed (especially those limiting non-Mexican companies to 49-percent ownership), the likely impact would be a significant increase in U.S. investment in the Mexican insurance sector, which would likely lead to a moderate increase in U.S. exports.

Construction services currently play a minimal role in United States-Mexico trade. This is mostly due to Mexican regulations restricting foreign participation in construction projects to a minority role in joint ventures and to U.S. immigration laws that restrict the movement of unskilled labor across the border. Under an FTA, U.S. construction firms will continue to benefit from their competitive advantage in projects requiring advanced design techniques and highly skilled construction management teams. Additionally, free movement of labor, if permitted under an FTA, could benefit both U.S. and Mexican firms by lowering labor costs. In the long term, if labor shortages develop in the United States, Mexican firms might then have an advantage in projects in the United States that require large numbers of unskilled workers.

U.S. trade in transportation services (excluding tourism-related transportation) with Mexico is limited because of numerous trade and investment barriers. Changes in the transportation sector resulting from an FTA would largely depend on revisions in U.S. State and Federal regulations and Mexican regulations that restrict participation on both sides. An FTA would likely have the most effect on motor carriers, which haul most of the domestic cargo in Mexico and most of the cargo that moves between the United States and Mexico. Although U.S. imports of trucking services from Mexico are likely to increase significantly, the overall effect on imports of transportation services would probably be small.

While an FTA would probably have little impact on the U.S. telecommunication and information services sector, the recent sale of TELMEX will appreciably change the Mexican telecommunication sector. Development of Mexico's telecommunication services sector has

been constrained by restrictive regulations and an underdeveloped infrastructure. The change in ownership and subsequent expansion and improvement of the network should result in an increase in telecommunications-based and related services that will lower costs, bring in foreign capital, and lead to an increase in demand for U.S. telecommunications software. An FTA in services would complement these changes in the domestic Mexican telecommunications market and significantly increase exports of U.S. information and data-processing-based services. Since approximately 90 percent of current trade is dominated by basic services i.e., telephone calls, the overall increase in U.S. exports will be negligible.



# INTRODUCTION

One year ago, a United States-Mexico free trade agreement (FTA) was just one of several alternative approaches being considered to enhance trade between the two countries. However, an FTA quickly gained wide acceptance in both countries and on June 10, 1990, President Bush and Mexican President Salinas de Gortari endorsed a comprehensive bilateral FTA as the best vehicle to strengthen bilateral economic relations and meet the challenges of international competition.<sup>1</sup> Subsequently, Canada requested participation in the negotiations with a view to negotiating a North American FTA.<sup>2</sup> On September 25, President Bush notified the Congress of the intention of the United States and Mexico to negotiate an FTA and to explore the possibilities of Canada joining an agreement.<sup>3</sup>

The timeframe for United States-Mexico negotiations will be determined by whether or not the Congress allows use of the "fast-track" procedure,<sup>4</sup> authorized under the Omnibus Trade and Competitiveness Act of 1988.<sup>5</sup> Under the fast-track procedure, the House Committee on Ways and Means and the Senate Committee on Finance have 60 legislative days from the date of written notice of the negotiations to withdraw authority for the Administration to negotiate a treaty using the fast-track procedure.<sup>6</sup> As long as neither committee disapproves the negotiations, the President can then proceed to negotiate an agreement and present it to Congress. The Congress has 90 legislative days either to accept or to reject, but not to amend, the provisions of the negotiated package. The timeframe for negotiating and implementing an agreement is limited by the statutory deadline of June 1, 1991, at which time the authority granted the President to use the fast-track process expires.<sup>7</sup> The President may extend such authority until June 1, 1993, if he requests the extension by March 1, 1991, and Congress approves the request by June 1, 1991.

It is anticipated that the 60-day timetable for the United States-Mexico negotiations, initiated on September 25, will require the House and Senate committees to decide whether or not to disapprove the fast-track procedure by spring 1991.<sup>8</sup> U.S. Government officials currently predict that an agreement can be reached sometime in 1992, permitting an implementation date of January 1, 1993.<sup>9</sup>

The scope of the proposed FTA has not yet been determined. Article XXIV of the General Agreement on Tariffs and Trade (GATT) defines an FTA as an agreement under which signatories remove tariffs and "other restrictive regulations on commerce . . . on substantially all the trade" between themselves.<sup>10</sup> Although FTAs, like the GATT, once may have been interpreted as addressing mainly tariffs or other border measures between countries, today multilateral (e.g., the Tokyo Round Codes) and bilateral agreements address a wide range of nontariff measures. Existing United States' FTAs with Israel and Canada extend to services, investment, and intellectual property rights protection, areas which have yet to be subject to multilaterally agreed rules.

Presidents Bush and Salinas have endorsed negotiation of an FTA that involves "the gradual and comprehensive elimination of trade barriers between the two countries, including: (1) the full, phased elimination of import tariffs; (2) the elimination or fullest possible reduction of nontariff trade barriers, such as import quotas, licenses, and technical barriers to trade; (3) the establishment of clear, binding protection for intellectual property rights; (4) fair

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<sup>1</sup> The White House, Office of the Press Secretary, *Joint Statement by the Presidents of Mexico and the United States on Negotiation of a Free Trade Agreement*. (No date)

<sup>2</sup> The Prime Minister of Canada, letter to the President of the United States, Sept. 21, 1990.

<sup>3</sup> The President of the United States, letters to Dan Rostenkowski, Chairman, Committee on Ways and Means, House of Representatives; and Lloyd Bentsen, Chairman, Committee on Finance, United States Senate, Sept. 25, 1990.

<sup>4</sup> President Salinas has already won approval from the Mexican Senate to open negotiations with the United States.

<sup>5</sup> The "fast-track" procedures are set forth at 19 U.S.C. §§ 2902, 2903.

<sup>6</sup> According to the General Counsel of the United States Trade Representative's Office in a phone interview, the 60 legislative-day period continues to run through different Congressional legislative sessions.

<sup>7</sup> 19 U.S.C. § 2903(b).

<sup>8</sup> The 60 legislative-day period can vary between 5 and 10 calendar months, depending on the congressional schedule.

<sup>9</sup> U.S. Department of State Telegram, Oct. 20, 1990, Hermosillo, Message Reference No. 01360, p. 1.

<sup>10</sup> Article XXIV of the GATT exempts FTA partners from the requirements of the most favored nation principle of the GATT (article 1) that would otherwise require them to apply the same trade concessions equally to all other GATT members.

and expeditious dispute settlement procedures; and (5) means to improve and expand the flow of goods, services, and investment between the United States and Mexico."<sup>11</sup> Questions regarding the scope of the proposed FTA have focused on labor migration and the petroleum sector.<sup>12</sup>

The purpose of the current study is to assess the likely impact of an FTA with Mexico on the United States.<sup>13</sup> Chapter 1 introduces the topic by profiling Mexico's recent trade and investment trends. Chapter 2 analyzes the likely impact of an FTA on the U.S. economy in general, based on theoretical economic principles. This chapter uses simple general equilibrium models of the Mexican and United States economies to analyze the impact on the labor market. Chapter 3 describes Canada's role in the proposed negotiations and uses basic economic principles to analyze the potential impact on trade flows of Canada joining an agreement. Chapter 4 analyzes the likely impact on major U.S. industries and other sectors, including agriculture, that could be most affected by the proposed FTA. A partial equilibrium model provides the basis for these analyses. Finally, chapter 5 summarizes the regional impact of an FTA in the United States, with particular emphasis on border communities.

The House Committee on Ways and Means and the Senate Committee on Finance, which requested this study, asked that the Commission summarize results rather than provide quantitative and detailed analyses. The executive summary attempts to summarize the results more succinctly than the body of the report. In addition, the committees placed strict time constraints on completing the report, due to the impending 60-legislative-day deadline for the Congress to vote on the fast-track procedure.

Commission staff contacted numerous representatives of government, academia, the private sector, and non-government associations in Mexico, Canada, and the United States to collect information and take into consideration completed and ongoing research on the implications for the United States of such an agreement.<sup>14</sup> Information was also obtained from census trade files, materials developed by commodity/industry and country analysts of the Commission, and public comments solicited through a *Federal Register* notice. The Commission received approximately 118 written submissions. No public hearing was held.

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<sup>11</sup> The White House, Office of the Press Secretary, *Joint Statement by the Presidents of Mexico and the United States on Negotiation of a Free Trade Agreement*. (No date)

<sup>12</sup> U.S. Department of State Telegram, Oct. 4, 1990, Mexico City, Message Reference No. 27270. Both sides have publicly stated that labor issues will not be on the negotiating table, but there has been no agreement on the oil sector. See, "Hills says FTA Agenda Not Closed; Pledges Close Consultation with Congress," *Inside U.S. Trade*, Jan. 11, 1991, p. 6.

<sup>13</sup> The Commission recently completed a two-phase study for the House Ways and Means Committee on U.S. relations with Mexico. The first phase, *Recent Trade and Investment Reforms Undertaken by Mexico and Implications for the United States*, was completed in April 1990 and reviewed liberalization measures undertaken since 1985 and implications for the United States. The second phase, *Summary of Views on Prospects for Future United States-Mexican Relations*, provided a summary of experts' views on options the United States and Mexico could pursue to broaden their bilateral trade relationship. This report was submitted to the Committee in October 1990.

<sup>14</sup> See app. D.

# Chapter 1

## Profile of Mexico's Trade and Investment Patterns

### Economic and Trade Policies

#### Historical Background

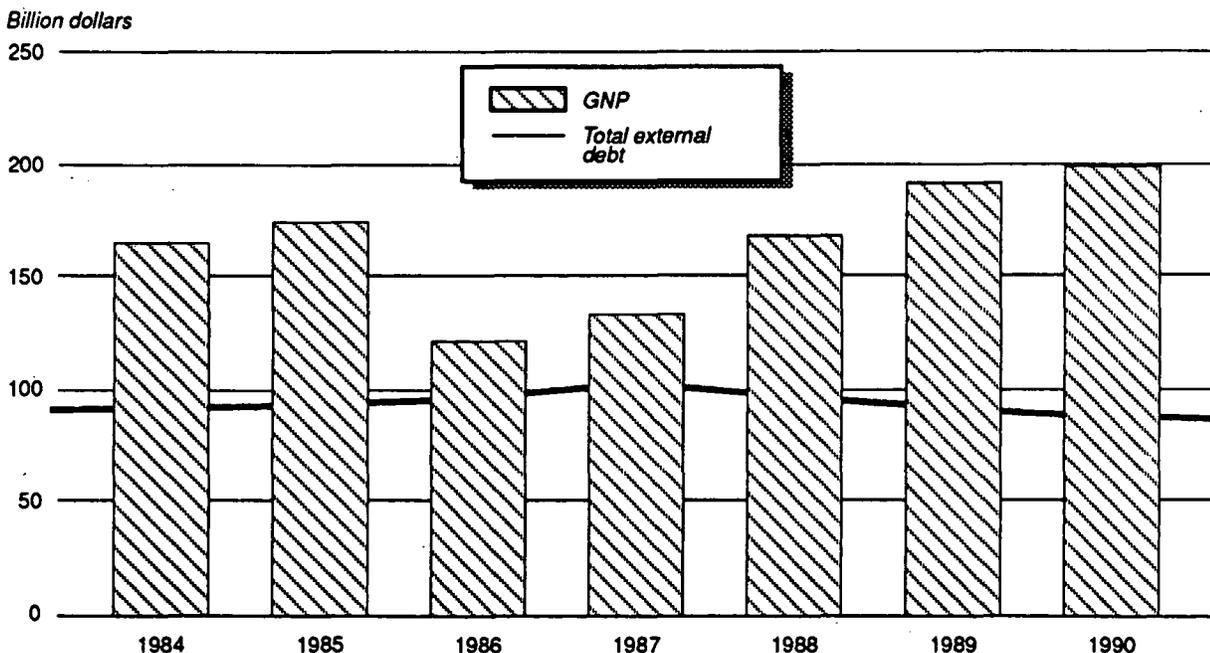
Until the mid-1980s, Mexican economic policies aimed at a high degree of self-sufficiency and involved substantial state intervention.<sup>1</sup> For decades, Mexico, like many Latin American countries, relied on import substitution policies, restrictions on foreign investment, and a controlled exchange rate in attempting to foster domestic growth and avoid the perceived danger of foreign domination. Mexico's economy also featured a strong "parastatal" sector, which consisted of entities owned or controlled by the state. The number of such entities increased from 391 in 1970 to 1,155 in 1982. The parastatal sector included the petroleum industry, which generated 75 percent of Mexico's foreign exchange revenues in 1983.

#### The Debt Crisis

In the 1970s, the development of its abundant oil resources and high oil prices enabled Mexico to obtain numerous foreign loans. These loans were used, in part, to finance high consumer spending levels and unproductive investments and allowed Mexico to

<sup>1</sup> The constitution of 1917 assigns the government a dominant role in managing and regulating the economy.

Figure 1-1  
Mexico's GNP and debt



Note.—1989 is estimated and 1990 is projected.

Source: World Debt Tables, 1990 Supp, p. 158.

maintain an overvalued currency. By the late 1970s, Mexico no longer could service its foreign debt without additional loans, and by the summer of 1982, the country owed \$86 billion to foreign creditors. Foreign commercial banks stopped lending to Mexico in August of that year.

To service its foreign debt, Mexico implemented painful austerity programs and generated sizable foreign trade surpluses. However, adverse developments beyond the Government's control brought Mexico new financial problems of crisis proportions. The world price of petroleum—Mexico's principal source of foreign exchange earnings—collapsed in the early eighties, and a major earthquake struck Mexico City in 1985. Consequently, Mexico imposed additional austerity measures throughout the 1980s (such as The Pact for Economic Solidarity),<sup>2</sup> which resulted in declining living standards and encouraged capital flight and outward migration.

Mexico's foreign debt peaked in 1987 at \$107.4 billion or 76 percent of Mexico's GNP (figure 1-1). It

<sup>2</sup> The most comprehensive austerity program was "The Pact for Economic Solidarity," launched in December 1987. "Pact" in the title indicates that this program was based on a consensus among government, business, and labor interests to lower their demands and share the burden of new austerity measures. The program combined tight fiscal and monetary policies with price, wage, and exchange controls, and accomplished its principal objective of controlling inflation. A follow-up program, called "The Pact for Economic Growth and Stability" (PECE), was introduced in December 1988. On November 11, 1990 PECE, which was to expire on January 31, 1991, was extended through the end of 1991.

was reduced thereafter by a variety of measures, including a "debt-for-equity swap" program.<sup>3</sup> By 1989, the debt had fallen to \$95.3 billion or 48 percent of GNP. In March 1990, the debt amounted to \$93.6 billion.<sup>4</sup> An annual average of \$94 billion is projected for 1990 and 1991.<sup>5</sup>

### *Diversification of Exports*

In order to maintain a sizable merchandise trade surplus to help service the foreign debt and to offset shrinking oil revenues, Mexico adopted a policy of diversifying its economic base away from petroleum. The Government's program of promoting "nontraditional" manufactured exports was highly successful. Whereas crude oil and oil products accounted for some 75 percent of Mexican exports in 1983, their share dropped to 34 percent of the total by 1989. Automotive products, other machinery and equipment, chemicals, iron and steel products, electrical and electronic goods, and textiles and clothing became major export items.

### *Liberalization of Trade*

In the wake of the debt crisis, the administration of President de la Madrid concluded that Mexico's long-standing protectionist stance was not effective. The administration argued that foreign competition was necessary to pressure domestic companies to adopt new technologies and lower their prices. A new policy initiated by President de la Madrid as part of his overall economic modernization program was the beginning of Mexico's rapid trade liberalization process.

This process shifted one of the world's most protected economies into one of the most open systems in just a few years. Mexico began to dismantle its tariff and nontariff trade barriers unilaterally in 1985, applied for GATT membership in the same year, and joined the GATT in August 1986.<sup>6</sup> The de la Madrid government, and its successor the current Salinas government, have continued the liberalization process to date, and in some instances have moved beyond Mexico's GATT commitments.

Some trade and investment liberalization measures were addressed in the Economic Solidarity Pact of December 1987 that was discussed above.<sup>7</sup> The

<sup>3</sup> "Debt-for-equity" swaps permit foreign investors to buy Mexican debt at a discount on international capital markets. Investors then convert that debt into equity in Mexican firms, usually at a higher value than they originally paid for.

<sup>4</sup> In 1989, Mexico reached agreements for large new loans from the IMF and World Bank, and for debt rescheduling with commercial creditors. In February 1990, the Mexican Government signed a multiyear financing agreement with its commercial bank creditors.

<sup>5</sup> The Economist Intelligence Unit, *Mexico Country Report*, No. 3, 1990, p. 4.

<sup>6</sup> Mexico has signed the GATT codes on import licensing, antidumping, customs valuation, and technical barriers to trade.

<sup>7</sup> For more information see USITC, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States Mexican Relations, Phase I, April 1990*, USITC Publication 2275, Ch. 1.

Salinas administration accelerated the pace of liberalization after taking office in January 1989. The major features of the process are summarized below.

### **Tariff barriers**

As a condition of its GATT membership, Mexico was required to lower its maximum ad valorem tariff barriers to 50 percent ad valorem. Mexico went further, however, by reducing its highest tariff rate to 20 percent, down from 100 percent in the mid-1980s. The trade-weighted average tariff fell from 25 percent in 1985 to about 10 percent in 1989.<sup>8</sup>

### **Nontariff trade barriers**

Import licenses, previously required on all Mexican imports, are now required on only 230 products of the nearly 12,000 items in the Mexican tariff schedule. Mexico abolished numerous other nontariff barriers, including its "official import prices," an arbitrary customs valuation system that raised duty assessments. The Mexican practice of heavily subsidizing exports is being phased out. In addition, Mexico's commitment to improve intellectual property rights protection led the United States Trade Representative to drop Mexico in October 1989 from a "Priority Watch List" of violators who are subject to possible sanctions under the "special 301 provision" of the Omnibus Trade and Competitiveness Act of 1988.<sup>9</sup>

### **Remaining barriers**

Although Mexico has significantly reduced its trade barriers, some barriers remain. Import licensing requirements still affect about 7 percent of the value of U.S. exports to Mexico, including wood and wood products and auto parts.<sup>10</sup> Notably, some 60 percent of U.S. agricultural exports to Mexico still require import licenses. Imports into Mexico are also affected by discriminatory government procurement policies; standards, testing, and certification requirements; limited intellectual property protection in many sectors (especially pharmaceuticals); and exclusive sales rights and distribution contracts. These and other limitations are often exacerbated by the lack of transparency of the procedures through which exporters into Mexico can apply for the proper license, certificate, or test.<sup>11</sup>

The remaining trade barriers in Mexico are generally concentrated in certain sectors or affect specific commodity groups.<sup>12</sup> Mexico's terms of accession to the GATT allowed the country to exclude sectors that are part of industrial development programs. As a result, the automotive, microcomputer,

<sup>8</sup> Testimony of Ambassador Julius L. Katz, Deputy United States Trade Representative before the Joint Economic Committee, Sept. 17, 1990 and unclassified cable from the Department of Commerce, Mar. 30, 1990.

<sup>9</sup> USTR, *1990 National Trade Estimate Report on Foreign Trade Barriers*, p. 144. Despite the Mexican commitment to improve intellectual property rights protection, numerous problems remain.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid. p. 142.

<sup>12</sup> For information on sector-specific trade and investment barriers, see ch. 4 of this report.

and pharmaceutical industries remain restricted markets.<sup>13</sup> The products which, as of August 1990, were still protected by the highest tariff rates (at or near 20 percent ad valorem) include fish, canned fruits and vegetables, coffee, beer and other beverages, tobacco products, apparel, detergents and cosmetics, home appliances, and automobiles. Nontariff barriers (such as import licensing) continue to apply to many agricultural products.<sup>14</sup>

## Foreign Trade

### Mexico's Trade with the World

In the years following the 1982 debt crisis, foreign debt obligations forced Mexico to generate substantial foreign trade surpluses. Boosted by the global oil boom, Mexico's overall exports increased through 1984; subsequently they dropped precipitously for the next 2 years as oil prices plunged. As a result of the Government's successful export diversification program, exports subsequently recovered as revenues from manufactured exports replaced most of the revenues from lost oil exports.

<sup>13</sup> USITC, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexican Relations*, "Phase I," USITC Publication 2275, April 1990, p. 4-7.

<sup>14</sup> Information is derived from tables prepared by the Mexican Secretary of Commerce and Industrial Development (SECOFI).

Through most of the eighties, low Mexican import levels reflected the Government's response to the debt crisis with severe import restrictions and exchange controls. Subsequent liberalization measures caused imports to surge in 1988 and 1989. Although exports expanded, export growth could not keep pace with that of imports due to declining oil prices.

The trade surplus Mexico registered each year following the debt crisis peaked in 1983 and began to erode thereafter. Figure 1-2 shows Mexican trade with the world from 1985 to 1989. The virtual disappearance of the trade surplus in 1988 and a shift of the trade balance into deficit in 1989 (and also the first nine months of 1990) was caused principally by steeply rising imports. The windfall from high petroleum prices in the last quarter of 1990, in all likelihood, substantially narrowed the trade deficit by the end of the year.

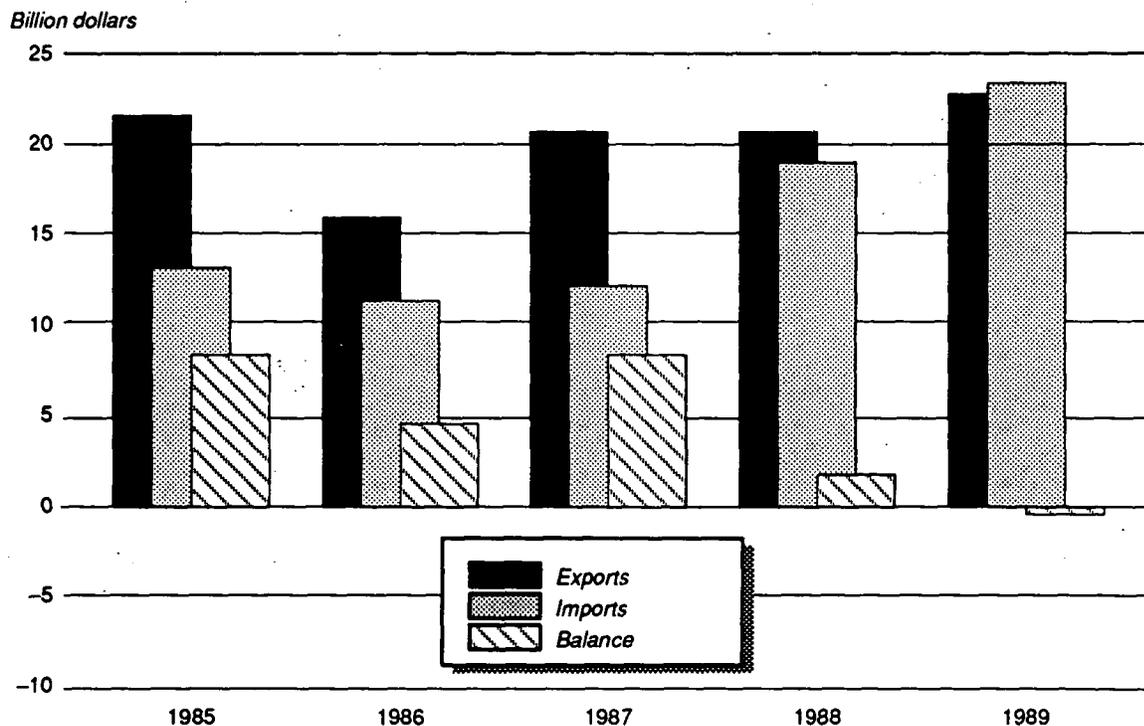
The United States accounted for over 70 percent of Mexico's exports and imports in 1989.<sup>15</sup> By contrast, although it is the third-largest U.S. trading partner (after Canada and Japan), Mexico supplied only 6 percent of total U.S. imports and absorbed 7 percent of total U.S. exports in 1989.<sup>16</sup>

Despite efforts to diversify its trade by partner, Mexico's reliance on the United States increased in the 1980s as shown in the following tabulation.

<sup>15</sup> Based on February 1990 figures reported in International Monetary Fund, *Direction of Trade Statistics*, August 1990, p. 92.

<sup>16</sup> *Ibid.* p. 139.

Figure 1-2  
Mexican exports, imports, and trade balance with the world, 1985-89



Source: IMF, International Financial Statistics, Banco Nacional de Comercio Exterior.

	U.S. share in Mexican trade	
	Exports	Imports
	per cent	
1983 .....	58.4	60.5
1989 .....	71.6	70.8

Source: IMF, Directions of Trade Statistics Yearbook 1989, and State Department telegram of May 1990.

Japan ranked a distant second among Mexico's trading partners, responsible in 1989 for 6.1 percent of Mexico's overall exports and 4.8 percent of its imports. Other major export destinations in order of importance were Spain (5.2 percent) and France (2.3 percent). Canada-Mexico's potential third partner in a North American FTA—was Mexico's sixth-ranking export market with 1.9 percent of the total. Notable non-U.S. sources of imports were West Germany (6.1 percent) and France (2.5 percent). Canada was Mexico's fifth-ranking source of imports in 1989 (1.9 percent).<sup>17</sup>

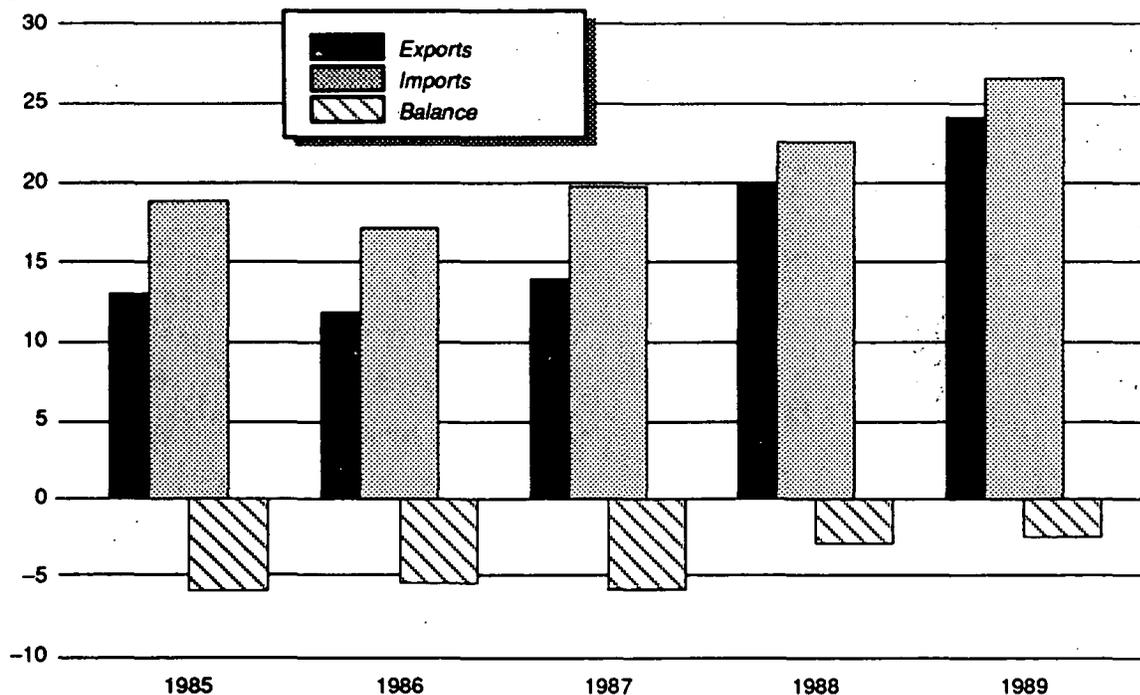
## U.S. Trade with Mexico

### Trends

Figure 1-3 shows United States-Mexican bilateral trade since 1985. With the United States dominating

<sup>17</sup> USITC, *Review of Trade and Investment Liberalization Measures by Mexico and prospects for Future United States-Mexico Relations, Phase II*, October 1990, USITC Publication 2326, and State Department Telegram of May 1990.

Figure 1-3  
U.S. exports, imports, and trade balance with Mexico, 1985-89  
Billion dollars



Source: U.S. Department of Commerce.

Mexican foreign trade, the data mirror Mexico's overall foreign trade trends. In 1988 and 1989, Mexican liberalization measures resulted in a surge of U.S. exports to Mexico. Due to the comparatively slower growth of U.S. imports from Mexico, the U.S. merchandise trade deficit vis-a-vis Mexico contracted.<sup>18</sup>

In 1989, manufactured goods accounted for over three-fourths of U.S. exports to Mexico and over two-thirds of U.S. imports from that country. Agricultural products were responsible for 8.9 percent of U.S. exports and 10.0 percent of U.S. imports.<sup>19</sup> Fuels and raw materials accounted for 18.0 percent of U.S. imports from Mexico, reflecting major petroleum purchases from that country. Automotive products constitute the largest component of United States-Mexico trade in both directions. Appendix tables E-1 and E-2 show the principal U.S. export and U.S. import items in trade with Mexico.

Selected U.S. imports from Mexico enter free of duty under the U.S. General System of Preferences (GSP), for which Mexico is eligible as a beneficiary developing country. In addition, part of Mexican imports—the U.S. value incorporated in Mexican products—returns free of duty under subheadings

<sup>18</sup> Mexican statistics still show a deficit in 1989 in Mexico's trade with all countries. Meanwhile, U.S. census data, which have a different statistical methodology, show a U.S. deficit for the same year in trade with Mexico.

<sup>19</sup> A considerable part of U.S. agricultural exports to Mexico are financed under the U.S. Department of Agriculture's export loan guarantee programs.

9802.00.60 and 9802.00.80 of the Harmonized Tariff Schedule of the United States (HTS).

In 1989, merchandise valued at \$2.5 billion, or 9.3 percent of overall U.S. imports from Mexico, entered free of duty under GSP. Mexico was the leading beneficiary under the program. U.S. imports under subheadings HTS 9802.00.60 and 9802.00.80 (formerly Tariff Schedules of the United States items 806.30 and 807.00) have rapidly increased in the eighties as a share of overall imports from Mexico. In 1989, they accounted for 45 percent of the total, up from 29 percent in 1985 (table 1-1). These goods reenter the United States after being assembled in Mexico from U.S.-made components, or being processed from U.S.-origin metal. The United States does not levy duties on the identifiable U.S.-origin metal and the U.S. components incorporated in the reentering products, only on the value added in Mexico either by labor or the addition of non-U.S.-origin components. A significant portion of U.S. exports to Mexico are inputs into Mexican products that will eventually reenter the U.S. market.

### Maquiladora industry

Most of the assembly of U.S.-made components or the processing of U.S. materials under HTS subheadings 9802.00.60 and 9802.00.80 takes place in the Mexican "in-bond" or maquiladora industry, established by the Mexican Government in 1965 to attract foreign manufacturing operations. Imported inputs for the maquilas' production are exempt from Mexican duties as long as they are used for exports. Under more recent regulations, certain items (for example, transportation equipment and computers) not directly involved in production are also exempt from Mexican duties. Moreover, maquilas are no longer restricted to the border zone, but have in recent years been permitted to settle inland and sell some of their finished products on the domestic market.

The maquiladora industry is Mexico's second-largest source of hardcurrency earnings from exports, after oil.<sup>20</sup> Maquilas, which are principally U.S.-owned, have constituted a trade link of steadily growing importance between the United States and Mexico and are widely considered to have established a basis for more intensified economic cooperation anticipated under an FTA.<sup>21</sup>

## Foreign Investment

### Trends and Sources

Prior to the mid-1980s, direct foreign investment played a relatively small role in Mexico. In this period,

<sup>20</sup> *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States Mexican Relations, Phase I*, April 1990, USITC Publication 2275, pp. 5-13 through 5-18.

<sup>21</sup> For more information on the importance of the maquiladora industry to the U.S. border economy, see chapter 5 of this report.

the only form of direct foreign investment favored by Mexican administrations was under the maquiladora program. Maquiladora establishments were allowed to be 100-percent foreign owned, whereas other ventures were restricted to minority foreign ownership.

As a result of its long-standing restrictive foreign investment policy, in 1985, Mexico had the lowest share of foreign investment of any large country in the Western world (about 5 percent of total gross fixed investment).<sup>22</sup> However, due to the authorities' increasingly liberal implementation of Mexico's restrictive foreign investment law, newly authorized foreign investment grew rapidly during the 1986-89 period. Foreign investment reached over \$11.93 billion cumulatively over this 4-year period, compared to \$4.62 billion in the previous 4 years.<sup>23</sup> Foreign direct investment totalled \$2.5 billion during all of 1989,<sup>24</sup> a record year,<sup>25</sup> even though the flow slowed markedly in the first half of the year in anticipation of a new foreign investment law that was issued in May 1989 and is discussed below. Commitments for direct foreign investment through September 1990 have already reached \$2.67 billion.<sup>26</sup>

Figure 1-4 presents the distribution of foreign direct investment in Mexico by country. The United States is Mexico's single largest source of foreign investment, accounting for 63 percent of all accumulated direct foreign investment at the end of 1989. In January-September 1990, 63.0 percent of U.S. direct investment was reported in industry and 28.6 percent in services.<sup>27</sup> Measures that restricted foreign investment for many years, and a prolonged flight of domestic capital to foreign countries, contributed to Mexico's capital crunch. Commercial interest rates reached as high as 70 percent in 1988.<sup>28</sup> However, the government's success in controlling inflation as well as the influx of foreign and returning flight capital after trade and investment liberalization measures were implemented, lowered commercial interest rates to an estimated 36.1 percent in 1990, still far above international levels.<sup>29</sup>

### Mexican Policies on Foreign Investment

Article 27 of Mexico's Constitution specifically forbids foreign control of natural resources and other parts of the "national patrimony." A highly restrictive law of 1973, the "Law to Promote Mexican Investment

<sup>22</sup> USITC, *Operation of the Trade Agreements Program, 37th Report, 1985*, USITC Publication 1871, p. 185.

<sup>23</sup> USITC, *Review of Trade and Investment Liberalization Measures by Mexico for Future United States Mexican Relations, Phase I*, USITC Publication 2275, p. 5-1.

<sup>24</sup> Committee for the Promotion of Investment in Mexico, *Mexico, Economic Newsletter*, fall 1990, p. 1.

<sup>25</sup> 1989 was a record year for foreign investment levels exclusive of investments made with debt-equity swaps. *Ibid.*, p. 1.

<sup>26</sup> *Ibid.*, p. 3.

<sup>27</sup> *Mexico, Economic Newsletter*, op. cit., p. 3.

<sup>28</sup> Commercial interest rates on an annual basis (U.S. Department of State Telegram, Oct. 31, 1990, Mexico City, Message reference No. 29694.)

<sup>29</sup> *Ibid.*

Table 1-1

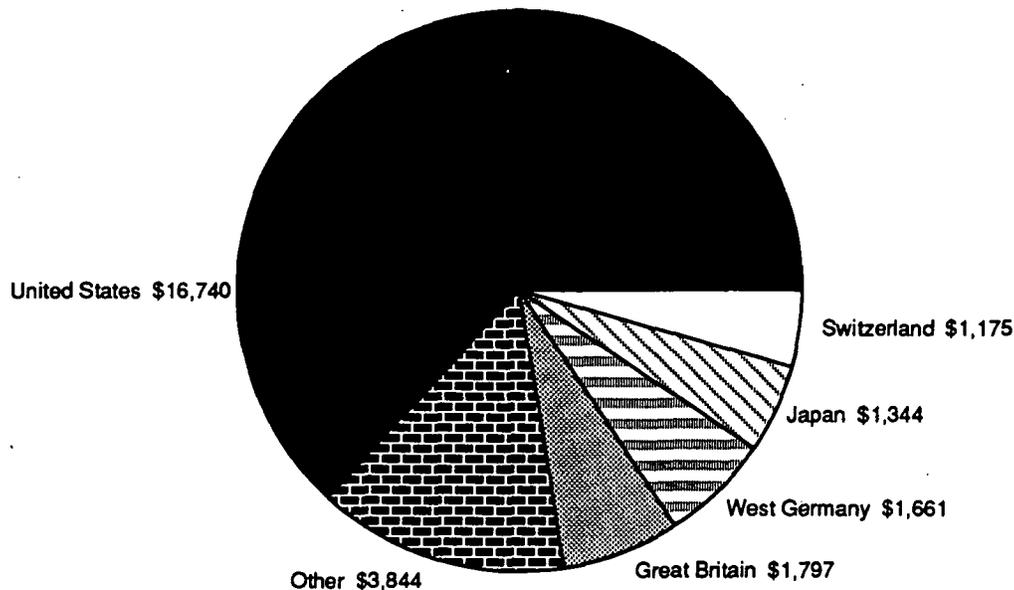
U.S. imports from Mexico entered under HTS items 9802.00.60 and 9802.00.80 and under GSP provisions, 1985-89

*(values in millions of dollars)*

	<i>1985 value</i>	<i>Percent of total</i>	<i>1986 value</i>	<i>Percent of total</i>	<i>1987 value</i>	<i>Percent of total</i>	<i>1988 value</i>	<i>Percent of total</i>	<i>1989 value</i>	<i>Percent of total</i>
Total U.S. Imports .....	18,938.2	100.0	17,196.4	100.0	19,765.8	100.0	22,617.2	100.0	26,556.6	100.0
HTS 9802.00.60 .....	30.3	.2	89.9	.5	112.3	.6	131.0	.6	181.1	.7
HTS 9802.00.80 .....	5,536.7	29.2	6,366.7	37.0	8,576.4	43.4	10,653.5	47.1	11,766.7	44.3
Imports under items 9802.00.60 and 9802.00.80 .....	5,567.0	29.4	6,456.6	37.5	8,688.7	44.0	10,784.5	47.7	11,947.8	45.0
Imports under GSP .....	1,240.0	6.5	1,443.4	8.4	1,721.3	8.7	2,192.3	9.7	2,470.8	9.3

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 1-4  
Accumulated foreign direct investment in Mexico, by country of origin, as of end of 1989 (In millions of U.S. dollars)



Source: SECOFI.

and Regulate Foreign Investment" (LFI) remains the legal framework for foreign investment in Mexico to date.<sup>30</sup> However, the de la Madrid administration began to liberalize Mexico's foreign investment regime in the mid-1980s, moving away from the restrictive interpretation of the LFI in a series of successive regulations. The effects of such liberalization are manifest in an upward trend of foreign investment.<sup>31</sup>

In May 1989, the Salinas government recognized Mexico's urgent need for foreign capital and accelerated the liberalization process. The government issued the "Regulations of the Law to Promote Mexican Investment and Regulate Foreign Investment" (May 1989 Regulations) which standardized foreign investment rules, improved the efficiency of the

application process, and greatly expanded the number of economic areas where majority foreign ownership is welcome.<sup>32</sup> Seventy-three percent of Mexican economic activity is now open to 100-percent foreign ownership without prior approval by the Mexican Government.<sup>33</sup>

Particularly noteworthy foreign investment opportunities that have resulted from the May 1989 Regulations include telecommunications services (up to 49 percent of foreign equity is now allowed), secondary and tertiary petrochemical products, tourism-related businesses, and financial services.<sup>34</sup> A 1989 maquiladora decree also eased the restrictions affecting investment in maquiladora facilities,<sup>35</sup> notably by raising the 20-percent cap on the maquilas' domestic sales to one third of the maquilas' total sales,

<sup>30</sup> This law was published in the *Diario Oficial* on Mar. 9, 1973 and became effective 60 days thereafter. The law reserves certain economic activities for the Government and others for Mexican nationals. The former category includes petroleum and other hydrocarbons; basic petrochemicals; exploitation of radioactive minerals and the generation of nuclear energy; mining in specified cases; electricity; railroads; telegraphic and wireless communications; and other specified activities. The second category includes radio and television; automotive transportation and transportation on Federal highways; domestic air and maritime transportation; exploitation of forestry resources; gas distribution; and other specified activities.

<sup>31</sup> See description of the LFI in USITC, *Review of Trade and Investment Liberalization Measures by Mexico for Future United States Mexico Relations, Phase I*, USITC Publication 2275, p. 5-4, 5-5, and 5-12.

<sup>32</sup> This law was published in the *Diario Oficial* on May 16, 1989 and became effective the following day. For more information on the May 1989 Regulations, see USITC, *Review of Trade and Investment Liberalization Measures by Mexico for Future United States Mexico Relations, Phase I*, USITC Publication 2275, pp. 5-7 to 5-11.

<sup>33</sup> SECOFI information reported in USITC, "Phase I," p. 5-11.

<sup>34</sup> See USITC, "Phase I," pp. 5-11 to 5-12.

<sup>35</sup> The "Decree for the Development and Operation of the Maquiladora Industry for Exportation" was published in the *Diario Oficial* on Dec. 22, 1989 and replaced the 1983 Maquiladora Decree of the de la Madrid administration. The new decree became effective the day after its publication.

provided a permit to do so is issued. To date, the granting of such permits is rare.

### *Foreign Investment Law: A Bilateral Issue*

The May 1989 Regulations represent a significant liberalization of foreign investment policy in Mexico. However, the fact that the restrictive 1973 LFI has not been repealed remains a source of U.S. concern. The United States argues that investors cannot rely on mere administrative measures, such as the May 1989 Regulations, which can be changed at any time. United States Trade Representative Carla Hills has stated that "Mexico should consider amending the national investment law."<sup>36</sup> Direct foreign investment is still sharply restricted in areas such as auto parts production, petrochemical industries, utilities, financial services, and land transportation.

### *Privatization*

In 1985, the Mexican Government began a policy of disengagement from direct involvement in the economy, preparing to "privatize" or disincorporate its parastatal sector. By the end of July 1990, the number of Government-owned or controlled entities had fallen

to 310 from 1,155 in 1982.<sup>37</sup> The government has indicated that it will sell off all parastatal companies except Pemex and CFE, the national petroleum and electricity companies, respectively.<sup>38</sup>

Mexico's privatization process is closely linked with the liberalization of foreign investment, since many of the state-owned companies now on sale have also been recently opened to foreign equity investment. Telecommunications and banking are two such areas recently opened to foreign participation.

## **United States-Mexican Economic Relations**

As part of its efforts to open up the economy to international competition and increase export earnings, Mexico has entered into a series of negotiations with the United States. These have resulted in the current consideration of a United States-Mexico free-trade agreement which has taken precedence over other mechanisms for conducting trade and investment consultations.

Major recent developments in bilateral relations are listed below.

- November 6, 1987 Framework of Principles and Procedures for Consultation Regarding Trade and Investment Relations.  
Mexico and the United States initiated their formal bilateral trade relationship with the 1987 Framework Understanding. Considered a landmark in economic relations between the two nations,<sup>39</sup> the accord focused on Mexico's need for export earnings to repay its foreign debt and on the creation of a mechanism for trade consultation, dispute resolution, and mutual reduction of trade and investment barriers.
- December 29, 1987 Sectoral accord on steel (revision of the VRA) and alcoholic beverages reached under the framework understanding.<sup>40</sup>
- February 13, 1988 Sectoral accord on textiles and apparel under the framework understanding, retroactive to January 1988.<sup>41</sup>
- January 1988-July 1989 Consultations and Plenary Sessions.<sup>42</sup>  
Under the auspices of the 1987 framework understanding, the parties discussed a range of trade-related issues, including agriculture, intellectual property rights, data sharing, foreign investment policy, steel, and textiles. Working groups were established by each party to pursue contentious issues and to facilitate commerce.
- October 3, 1989 Understanding Between the Government of Mexico and the Government of the United States of America Regarding Trade and Investment Facilitation Talks (TIFTs).<sup>43</sup>  
The mandate of the TIFTs goes beyond that of the 1987 framework understanding. TIFTs provides for comprehensive trade and investment negotiations which force the parties to focus on specific economic sectors as well as cross-sectoral issues.<sup>44</sup> Under the TIFTs, the fact-finding and analysis in preparation of negotiations are performed by binational teams rather than based on exchanges between separate study groups on both sides.

<sup>36</sup> Her testimony on June 14, 1990, before the Subcommittee on Ways and Means, U.S. House of Representatives.

<sup>37</sup> *Mexico, Economic Newsletter*, op. cit., p. 4.

<sup>38</sup> U.S. Department of State Telegram, Nov. 19, 1990, Hermosillo, Message Reference No. 29694.

<sup>39</sup> See USITC, *Review of Trade and Investment Liberalization Measures by Mexico for Future United States Mexico Relations, Phase I*, USITC Publication 2275, April 1990, p. 2-3.

<sup>40</sup> *Ibid.*, p. 2-5.

<sup>41</sup> *Ibid.*, p. 2-5.

<sup>42</sup> *Ibid.*, p. 2-4.

<sup>43</sup> *Ibid.*, p. 2-6.

<sup>44</sup> See USITC, *Review of Trade and Investment Liberalization Measures by Mexico for Future United States Mexico Relations, Phase I*, USITC Publication 2275, April 1990, p. 2-6.

- February 16, 1990 Memorandum of Understanding on Textiles.  
Provides access for Mexico to the U.S. market beyond the 1987 agreement.<sup>45</sup>
- June 10, 1990 President Bush and President Salinas meet in Washington and determine that a comprehensive FTA would be the best vehicle to broaden bilateral economic relations. They direct United States Trade Representative Carla Hills and Mexican Minister of Commerce and Industrial Development Jaime Serra Puche to commence preparatory consultations.
- August 8, 1990 Ambassador Hills and Minister Serra Puche jointly recommend the formal initiation of negotiations towards a comprehensive FTA.
- August 21, 1990 President Salinas formally requests FTA negotiations.
- September 1990 Canada expresses a desire to participate in the FTA negotiations. The ministers (secretaries) of the three countries begin to explore the feasibility of trilateral negotiations.
- September 25, 1990 President Bush submits a formal request to Congress for authority to negotiate an FTA with Mexico. The announcement signals the beginning of a 60-legislative-day period during which Congress may approve or disapprove the "fast-track" negotiating authority.<sup>46</sup>
- October 1990 U.S. Commerce Secretary Mosbacher and Mexican Minister of Commerce Serra Puche jointly visit U.S. businessmen in Houston, Dallas, New York, Chicago, and Los Angeles to raise support for the proposed FTA.
- November 26-27, 1990 Presidents Bush and Salinas meet in Monterrey, Mexico, to continue discussing the FTA and other subjects.

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<sup>45</sup> Phase I, April 1990, p. 2-6

<sup>46</sup> For more information, see the introduction to this report.



## Chapter 2

# The Likely Impact of a United States-Mexico Free Trade Agreement on the U.S. Economy

### Effects on the Overall Economy

#### Theoretical Principles

An FTA is a form of preferential trade liberalization in which two or more nations within the world trading community eliminate or substantially reduce barriers to trade among themselves.<sup>1</sup> They do not adopt a common tariff for nonmembers as they would in a customs union. FTAs can affect the economic welfare of member nations in several ways. The major effects are the following, from the perspective of a member country.<sup>2</sup>

Imports from member countries increase, displacing higher cost domestic goods. The resources that are released in the home country can be used in activities that produce greater value. In addition, consumers increase consumption of the less expensive imports and decrease less valued consumption of other goods. This process, called trade creation, increases welfare.

Imports from member countries increase, displacing lower cost imports from nonmember countries that still face trade barriers. Consumers actually pay less for the imports, but the loss to the country from reduced tariff revenue and rents to protected domestic industries exceeds the benefit to consumers on imports that would have been purchased from nonmember countries in the absence of the FTA. This process is called trade diversion. The trade diversion loss might be outweighed by consumer gains from additional imports.<sup>3</sup>

Producers in member countries can sell without restriction in all member countries,

allowing those in some industries to exploit more fully economies of large-scale production. This increases welfare.

Competition among producers in member countries increases, increasing welfare.

An FTA is most likely to be beneficial if its members have high tariffs before integration, low tariffs on nonmembers after integration, and if nonmembers have high tariffs on members. These conditions provide the greatest opportunity for trade creation, economies of scale, and consumer benefits, and the least potential for trade diversion.<sup>4</sup>

#### Experience with FTAs

A number of FTAs have been formed since World War II, with mixed results. Researchers have found that the more successful FTAs, such as the European Free Trade Association, tend to be among countries that are at comparable levels of development, at more advanced levels of development, and are located in close geographic proximity.<sup>5</sup> The most successful example of preferential trade liberalization that has inspired many countries to form FTAs is the European Community (EC), which is not an FTA at all. The EC was organized as a customs union in 1958 and later began integrating more fully into a common market in goods, services, labor, and capital, a process that is still underway.<sup>6</sup> Many observers give substantial credit to the EC for the impressive growth of its members since its inception.

The United States currently has FTAs with Israel and Canada. These agreements entered into force in 1985 and 1989, respectively. A number of researchers have estimated the likely effects of the United States-Canada FTA. Most have found the effects on the United States to be positive but very small. The results of five studies based on general equilibrium analysis<sup>7</sup> reported in one survey provide a range of estimates of the effects of the United States-Canada FTA on economic welfare<sup>8</sup> in the United States of between -0.03 percent and 0.09 percent of U.S. GDP.<sup>9</sup>

<sup>1</sup> For the GATT definition of an FTA, see the introduction to this report.

<sup>2</sup> Discussions of the effects of FTAs are provided in Jacob Viner, *The Customs Union Issue*, New York: Carnegie Endowment for International Peace, 1950; W. Max Corden, *Protection, Growth, and Trade*, New York: Basil Blackwell, Inc. 1985, pp. 58-68; Paul Wonnacott and Mark Lutz, "Is There a Case for Free Trade Areas?," in Jeffrey J. Schott, editor, *Free Trade Areas and U.S. Trade Policy*, Washington, DC: Institute for International Economics, 1989, pp. 59-84; and Ronald J. Wonnacott, "U.S. Hub-and-Spoke Bilaterals and the Multilateral Trading System," unpublished.

<sup>3</sup> Some economists consider the increase in imports to be trade creation (Dominick Salvatore, *International Economics*, second edition, New York: Macmillan Publishing Company, 1987). Other economists consider it to be part of the trade diversion effect (Richard Caves and Ronald Jones, *World Trade and Payments (An Introduction)*, fourth edition, Boston: Little, Brown and Company, 1985).

<sup>4</sup> Wonnacott and Lutz, in *Free Trade Areas and U.S. Trade Policy*, pp. 59-84.

<sup>5</sup> Jeffrey J. Schott, "More Free Trade Areas?," in Jeffrey J. Schott, editor, *Free Trade Areas and U.S. Trade Policy*, pp. 1-58.

<sup>6</sup> For an explanation of the greater integration now in progress in the EC and its probable effects, see USITC, *The Effects of Greater Economic Integration Within the European Community on the United States*, original report (publication No. 2204, July 1989), first follow-up report (publication No. 2268, March 1990), and second follow-up report (publication No. 2318, Sept. 1990).

<sup>7</sup> In general equilibrium analysis, all prices and quantities are determined simultaneously, as opposed to partial equilibrium analysis in which one or a few are determined independently of the others. General equilibrium analysis is considered to be the superior analytic technique because it allows a more complete estimation of the effects of a disturbance.

<sup>8</sup> A change in welfare can be defined as the net change in economic benefits to all consumers and producers.

<sup>9</sup> Cletus C. Coughlin, "What Do Economic Models Tell Us About the Effects of the U.S.-Canada Free Trade Agreement," St. Louis: The Federal Reserve Bank of St. Louis *Review*, September/October 1990, pp. 40-58.

Four of the five predict positive effects. The five studies plus a sixth one dealing with Canada reported in the same survey provide estimates of the effects of the FTA on economic welfare in Canada of between -0.35 percent and 8.74 percent of Canada's GDP. Four of the six predict positive effects. The relatively larger effects for Canada are partly a result of the much smaller size of Canada's economy. Canada's GDP was US\$ 543 billion in 1989, which was 10.5 percent of the U.S. GDP of \$5,167 billion.<sup>10</sup> The Commission is aware of only one study of the effects of the United States-Canada FTA since it was instituted 2 years ago, which concludes that an FTA has produced net benefits both for U.S. workers and businesses, but appears to have affected Canada less favorably.<sup>11</sup>

The Commission is aware of only one study of the effects of the United States-Israel FTA.<sup>12</sup> According to the author, United States-Israel trade has increased significantly since 1985 and the United States has received most of the benefits.

### *The Likely Effects of a United States-Mexico FTA*

On the basis of the principles described above and current and probable future economic conditions, it is likely that a United States-Mexico FTA would provide net economic benefits to the United States, but the benefits would be small in relation to the size of the U.S. economy at least in the near to medium term. The benefits of an FTA would probably increase in time, but remain fairly small in the foreseeable future.<sup>13</sup>

The benefits to the United States would include trade creation resulting from reduced trade barriers, increased economies of scale for both U.S. and Mexican producers, lower prices for U.S. consumers, and greater competition in certain U.S. markets. The only loss to the national economy would be trade diversion resulting from part of the displacement of trade with third countries.<sup>14</sup>

<sup>10</sup> OECD, *Main Economic Indicators*, June 1990.

<sup>11</sup> National Planning Association, "The Free Trade Agreement: 18 Months Later," *Canada-U.S. Outlook*, Vol. 2, No. 1, 1990. The study notes that it is difficult at this initial stage of the agreement to isolate the effects of the FTA from the effects of other policies.

<sup>12</sup> Rosy Nimroody, "U.S.-Israel Trade Remains Far From Free," *The Journal of Commerce*, Nov. 19, 1990.

<sup>13</sup> For a discussion of the benefits and costs of a United States-Mexico FTA, and the likelihood that the benefits would outweigh the costs for the United States but that the overall welfare gains would be small, see Jeffrey Schott, Gary Hufbauer, and Lee Remick, "Annotated Agenda: Prospects for Freer Trade in North America," November 29, 1990, unpublished. See also Jeffrey Schott, "The Mexican Free-Trade Illusion," *The International Economy*, June/July 1990, p. 32.

<sup>14</sup> Not all of the trade with the rest of the world that would be displaced under an FTA would constitute trade diversion. Some of the increased United States-Mexico trade would displace higher cost suppliers in third countries who receive preferential duty treatment under existing FTAs with Canada and Israel, the Caribbean Basin Economic Recovery Act, or the GSP program—and consequently do not necessarily hold their market shares in the United States on the basis of lowest cost. Displacement of these suppliers under the FTA would be a benefit similar to trade creation.

The net gain would probably be relatively small, however, for two reasons. First, in spite of Mexico's population of some 88 million, its economy is small relative to the U.S. economy. As shown in figure 2-1, Mexico's GDP of \$187 billion in 1989 was only 3.6 percent of U.S. GDP.<sup>15</sup> Second, in all but a few sectors, both countries have relatively low tariff and nontariff barriers to trade with each other, limiting the additional trade liberalization that is possible. As stated in chapter 1, Mexico has undertaken a massive liberalization of its trading system since the early 1980s, lowering its tariff rates from as high as 100 percent to a maximum of 20 percent, with a trade-weighted average of 10 percent in 1989, and lifting quantitative restrictions on products covering nearly 80 percent of the value of Mexico's imports.<sup>16</sup> The trade-weighted average U.S. tariff rate was 3.4 percent in 1989.<sup>17</sup> Moreover, in 1989 under the Generalized System of Preferences, about 9 percent of the value of Mexican exports to the United States entered free of duty and some 45 percent of Mexico's exports to the United States entered under HTS subheadings 9802.00.60 and 9802.00.80.<sup>18</sup> Goods imported under these subheadings are subject to duties only on the portion of their value not produced in the United States. The relatively small trade barriers already allow most of the benefits of trade between the two countries to be realized and therefore limit the potential benefits of an FTA.<sup>19</sup>

Many observers believe that Mexico's economy will grow rapidly in the coming years because of its recent economic reforms, whether or not an FTA is adopted. If its growth is forthcoming, Mexico is likely to increase its exports to the United States and become a larger market for our exports. An FTA will probably increase Mexico's rate of growth, thereby increasing the benefits to the United States over time. For example, if an FTA were to add 2 percent to Mexico's annual rate of growth, an amount that would be considerable, over 20 years it would only induce total growth of the Mexican economy equivalent to 1.75 percent of the present U.S. economy.<sup>20</sup> If Mexico were

<sup>15</sup> CIA, *The World Factbook* 1990.

<sup>16</sup> USITC Publication 2275, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexico Relations*, April 1990. See also Rudiger Dornbusch, professor of economics, Massachusetts Institute of Technology, testimony to the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, June 14, 1990, p. 14.

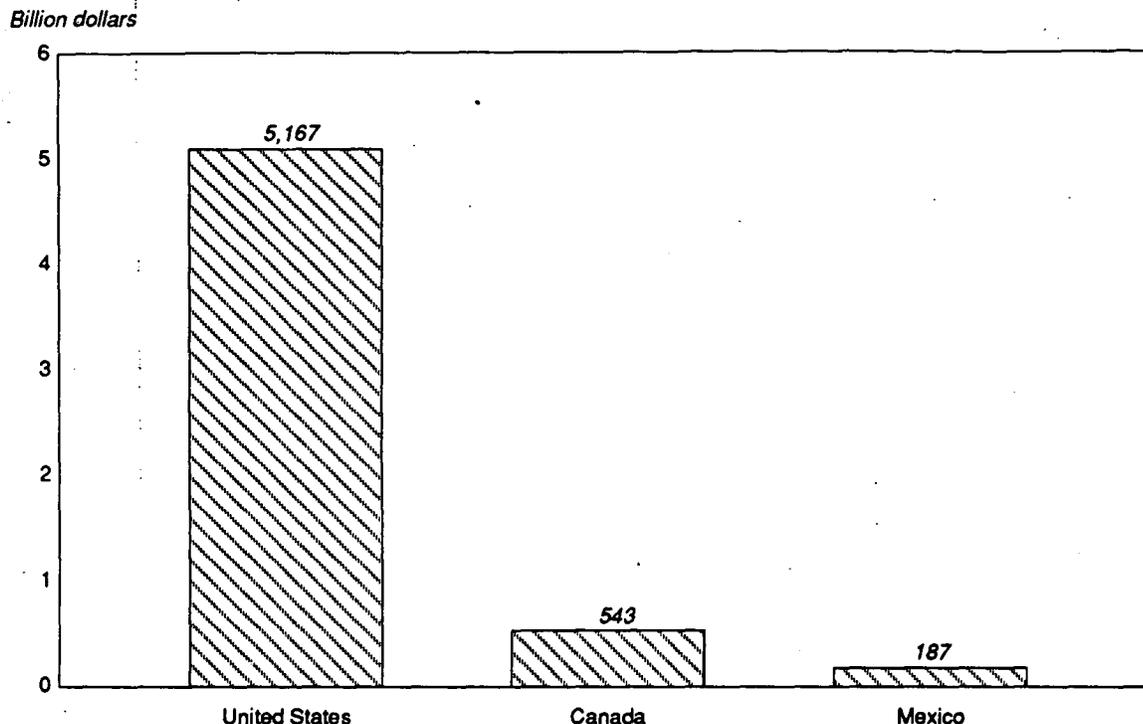
<sup>17</sup> USITC, "Value of U.S. Imports for Consumption, Duties Collected, and Ratio of Duties to Values," May 1990, p. 4.

<sup>18</sup> See chapter 1 of this report.

<sup>19</sup> In his statement to the Commission, Nov. 21, 1990, Sidney Weintraub, Distinguished Visiting Scholar of the Center for Strategic and International Studies, said that because U.S. tariffs and nontariff barriers are currently so low, elimination of them under a United States-Mexico FTA would have little effect for "the bulk of U.S. imports."

<sup>20</sup> The increase in the size of Mexico's economy after 20 years resulting from an increase in growth of 2 percent, relative to the size of the present U.S. economy, can be calculated by raising the annual growth factor (1.02) to the 20th power and multiplying the resulting product minus 1 times the present relative size of the Mexican economy (3.6 percent of the U.S. economy).

**Figure 2-1**  
**The United States, Canada, and Mexico, Gross Domestic Product, 1989**



Source: OECD, *Main Economic Indicators* June 1990 for the U.S. and Canada. CIA, *The World Factbook 1990* for Mexico.

at that time to spend 15 percent of the increased purchasing power on U.S. goods,<sup>21</sup> U.S. exports would increase by only 0.26 percent of present GDP. In addition, the FTA would cause a somewhat higher portion of the increased Mexican growth that will occur independently of an FTA to be spent on U.S. exports and would also cause a higher rate of compounding of this growth. This increase in U.S. exports to Mexico represents benefits of an FTA to the United States beyond what they would be initially. However, the effects would probably still be fairly small relative to the size of the U.S. economy for many years.

These conclusions do not imply that the United States does not or will not receive significant benefits from trade with Mexico. The United States already benefits from such trade and the benefits will probably increase substantially in the next generation if the Mexican economy grows rapidly as many expect. However, the United States will probably obtain most of these benefits without an FTA.

The effects of an FTA might be proportionately much greater in individual industries or regions of the United States than in the economy as a whole. The

<sup>21</sup> Rudiger Dornbusch suggests that as much as 15 percent of Mexico's additional income will be spent on U.S. goods and services. Rudiger Dornbusch, professor of economics, Massachusetts Institute of Technology, testimony before the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, June 14, 1990, p. 5.

effects might be greater in an industry if large tariff or nontariff barriers are removed or if the demand of consumers in one country for the output of the other is highly responsive to a change in price.<sup>22</sup> The effects might be greater in a region if it contains a large concentration of industries that are highly affected by the FTA or if trade with Mexico represents an unusually large portion of its economic base. These possibilities are discussed in chapters 4 and 5.

The benefits to Mexico would be proportionately much greater than for the United States because it would be integrating with an economy many times as large as its own. Some observers note what they consider to be a parallel between Mexico's integrating with the United States and Spain and Portugal's joining the EC in 1986.<sup>23</sup> Spain's GDP has grown annually near or above 5 percent since EC accession.<sup>24</sup>

A number of researchers outside of the Commission are estimating the likely economic effects of a United States-Mexico FTA. A description of their work is provided in appendix D.

<sup>22</sup> In his written statement to the Commission of Nov. 21, 1990, Sidney Weintraub, Distinguished Visiting Scholar of the Center for Strategic and International Studies, said that "An adverse impact on U.S. industries is possible. . . only in those areas in which U.S. protection, tariff and/or nontariff, is now high."

<sup>23</sup> Rudiger Dornbusch, professor of economics, Massachusetts Institute of Technology, testimony before the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, June 14, 1990, p. 7.

<sup>24</sup> U.S. Embassy, Spain, *Economic Trends Report*, June 1990.

## Investment

Many analysts believe that a bilateral FTA would have significant effects on the level of investment in Mexico. For example, they believe that by codifying liberal trade and investment policies in an international agreement, heretofore adopted only as a matter of national policy, a United States-Mexico FTA would increase the confidence of investors in Mexico's continued economic growth and its resolve to maintain conditions favorable to the profitable operation of businesses.<sup>25</sup> Investors, including those from Mexico, the United States, and third countries, might also believe that an FTA with the United States would ensure Mexico's continued access to the U.S. market.<sup>26</sup> An increase in investment in Mexico would raise wage incomes and employment in Mexico, increase GDP growth, increase foreign exchange earnings, and facilitate the transfer of technology. In so doing, it would increase Mexico's demand for imports and, to the extent that they are purchased from the United States, benefit the United States as well.<sup>27</sup> However, for the reasons given in the previous section, the benefits to the United States of increased investment and growth in Mexico are likely to be small for a long time.

Whether or not an FTA is adopted, there are a number of factors that will affect the level of investment in Mexico. Factors that will attract investment are Mexico's relatively low wages, highly literate labor force, less stringent environmental standards, and close proximity to the United States.<sup>28</sup> Factors that will discourage investment are Mexico's poor infrastructure, including its system of land transportation, ports, water, sewers, telecommunications, and power;<sup>29</sup> competition for international investment funds with other developing countries, especially those in Eastern Europe;<sup>30</sup> Mexico's existing external debt obligations of over \$90 billion, which slow the country's growth and raise

doubts about its ability to repay loans; and Mexico's unstable political environment.<sup>31</sup>

It is likely that a United States-Mexico FTA would have little effect on investment in the United States. The United States has few existing restrictions on foreign investment that an FTA would eliminate. In addition, the modest increase in overall U.S. production that is expected to result from the FTA will require little additional plant and equipment.

Some amount of investment might be drawn to Mexico and away from the United States because of the improved opportunities in Mexico resulting from an FTA. The amount drawn away would probably be small, because of the much smaller size of the Mexican economy, and would be at least partly offset by the somewhat improved investment opportunities in the United States.

There has been some concern that if an FTA is adopted, producers in third countries, notably Japan, will build assembly or other facilities in Mexico to take advantage of the preferential duty elimination.<sup>32</sup> The rules of origin in the FTA will almost certainly specify a percentage of the value of a good that must be produced in Mexico in order for it to qualify for duty-free entry into the United States. Enforcement of the rules of origin will prevent producers in third countries from benefitting from the duty elimination except as allowed under the agreement.

Some incentives already exist for third-country producers to build plants in Mexico, since they can receive preferential entry of their exports into the United States under HTS subheadings 9802.00.60 and 9802.00.80 and the maquiladora program. The investment of Japanese firms in maquiladoras has to date been limited. By one count only 65 plants out of about 1,800 plants are Japanese.<sup>33</sup>

## Labor Market Adjustment

While the labor force is fully employed,<sup>34</sup> as it has been during much of the past 50 years, an FTA with Mexico would probably have little effect on the overall level of employment. It might cause some shifting of employment among occupations and might affect wage rates and the level of immigration from Mexico.

<sup>25</sup> Jeffrey Schott, "The Mexican Free Trade Illusion," *The International Economy*, June/July 1990, p. 32.

<sup>26</sup> Submission by Instituto Tecnológico Autónomo de México, Nov. 29, 1990.

<sup>27</sup> Dornbusch, p. 5, notes that a substantial portion of the additional Mexican income, perhaps as much as 15 percent, will be spent on U.S. goods and services. Weintraub, p. 1-2, similarly states that the U.S. would benefit from Mexican growth because 60-70 percent of Mexican imports are purchased from the United States.

<sup>28</sup> Gary Teske, "U.S. Trade with Mexico in Perspective," *Business America*, June 18, 1990, p. 21; Brian C. Brisson, "U.S.-Mexico Commercial Relations Continue to Expand and Improve," *ibid.*, Oct. 8, 1990, p. 10; Anrea Curaca Malito, "Japanese Assistance in Pollution Control Opens Door for U.S. Business," *ibid.*, p. 16.

<sup>29</sup> Paul Dacher, "Mexico's Economic Growth is Achieved Through Reform, Privatization," *Business America*, Oct. 8, 1990, pp. 11-12.

<sup>30</sup> Susan Walsh Sanderson and Robert H. Hayes, "Mexico—Opening Ahead of Eastern Europe," *Harvard Business Review*, September/October 1990.

<sup>31</sup> Rudiger Dornbusch, professor of economics, Massachusetts Institute of Technology, testimony before the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, June 14, 1990, p. 12. For a full discussion of perceptions about Mexico's political stability, see USITC Publication 2326, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexico Relations*, Phase II, October 1990, p. 1-4.

<sup>32</sup> USITC, Publication 2326, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexico Relations*, Phase II, October 1990, pp. 1-29 to 1-30.

<sup>33</sup> *Business Week*, Nov. 12, 1990.

<sup>34</sup> Most economists define "full employment" as the condition of having at least 93 to 96 percent of the labor force employed.

During periods of less than full employment, an FTA could also affect the overall employment level.<sup>35</sup>

### *Migration and Relative Wages*

Full trade liberalization between the United States and Mexico consequent to an FTA would tend to equalize tradeable goods prices in the two countries. In theory, under certain conditions, the equalization of a sufficient number of product prices in two countries would cause labor wages and other production factor prices to equalize, even if the factors are not themselves internationally tradeable.<sup>36</sup> Even when the stringent conditions for full factor price equalization are not fulfilled, most economists would expect the gap between real wages in two countries to narrow following trade liberalization. When capital is industry-specific, however, wages would not be expected to converge fully.<sup>37</sup> In this situation, the demand for labor is altered by the fixed distribution of capital.

The impact of goods price equalization on wage differentials results from the adjustment of labor demands such that unit costs for tradeable goods production equal the common, postliberalization price in both countries. For factor price equalization to be complete, both countries must produce a sufficient number of identical, tradeable goods. In a sense, under these circumstances, labor services may be traded among countries embodied in goods rather than through the movement of workers. The trade in labor, whether in the form of worker migration or labor services embodied in goods, tends to equalize wages.

Workers migrate from areas of lower real wages to areas of higher wages. Since migration is costly, more workers migrate when the rewards yielded by the international wage differential are greater. Researchers have estimated the proportional increase in the rate of migration from Mexico to the United States induced by an increase in the wage differential. This measure of response is called the United States-Mexico migration elasticity.

Although migration slowly results in wage equalization between two countries when everything else remains fixed, actual wage differentials—and thus the incentive to migrate—may be sustained through

<sup>35</sup> For a general discussion of the employment effects of U.S. trade policy, see Linda C. Hunter, "U.S. Trade Protection: Effects on the Industrial and Regional Composition of Employment," Federal Reserve Bank of Dallas, *Economic Review*, January 1990.

<sup>36</sup> For a seminal discussion of the factor-price equalization theorem, see Paul Samuelson, "International Factor-Price Equalization Once Again," *Economic Journal*, 1949, pp. 181-197.

<sup>37</sup> For a full exposition of the specific-capital model and its implications for factor markets, see R.W. Jones (1971), "A Three Factor Model in Theory and History," in *International Trade: Essays in Theory*, New York: North Holland, 1979; M. Mussa, "Tariffs and the Distribution of Income: the Importance of Factor Specificity, Substitutability, and Intensity in the Short and Long Run," *Journal of Political Economy*, December 1974, pp. 1191-1203; and W. Mayer, "Short-Run and Long-Run Equilibrium for a Small Open Economy," *Journal of Political Economy*, December 1974, pp. 955-967.

sufficiently rapid differences in population growth. Thus migration may become a long-term phenomenon, although this possibility was not examined separately.

### *Prior Research*

In a 1984 article in the *Journal of International Economics*,<sup>38</sup> John K. Hill and Jose A. Mendez analyzed the effect of trade liberalization between the United States and Mexico on relative wages and migration. They found that by mutual elimination of barriers to trade that were in place in the mid-1960s, the ratio of real U.S. to Mexican wages for both skilled and unskilled workers combined would decline by about 18 percent. This reduction, in turn, would reduce migration from Mexico to the United States by, at most, 35 percent.<sup>39</sup> Since protection today falls far short of the 1960s, it follows that use of the Hill-Mendez methodology implies smaller effects of an FTA in the 1990s.

### *Effects of an FTA*

Commission staff has developed simple general equilibrium models of the United States and Mexican economies linked into a single model by tradeable goods prices.<sup>40</sup> The Commission staff model distinguishes between tradeable and non-tradeable goods for both economies. In keeping with common practice, tradeable goods are generally manufactured products whereas non-tradeable goods are generally services. In both Mexico and the United States, imports are treated as imperfectly substitutable with domestic competing products.<sup>41</sup> With this model, the Commission staff has estimated the medium-term effect of trade liberalization on real wage rates for skilled and unskilled workers in the United States and Mexico.<sup>42</sup> As suggested by the factor-price equalization theorem with industry-specific capital, the wage differential narrows. The maximum estimated effect of the predicted wage convergence on the rate of migration was obtained by use of migration elasticities reported in the economic literature.<sup>43</sup>

<sup>38</sup> "The Effect of Commercial Policy on International Migration Flows: The Case of the United States and Mexico," *Journal of International Economics*, 1984.

<sup>39</sup> The Hill-Mendez study is the only published study of its kind of which we are aware. Raul Hinojosa Ojeda has also addressed the issue of U.S. labor market adjustment and migration using linked multi-sectoral trade models, but we have not yet obtained a copy of his research. From information obtained through phone conversations, it appears that his results generally correspond with those obtained through use of the Commission staff model, as reported below. See appendix D for a brief description of the research being conducted by Raul Hinojosa Ojeda.

<sup>40</sup> For a discussion of the effects of an FTA on labor in individual sectors and regions, see chapters 4 and 5, respectively.

<sup>41</sup> Thus, labor embodied in imports is indirectly imperfectly substitutable with domestic labor.

<sup>42</sup> Commission results are preliminary; more reliable and precise results could be achieved through further research.

<sup>43</sup> The model makes no specific assumption about the degree of substitutability between Mexican workers who have migrated to the United States, and unskilled workers who were originally resident in the United States. Rather, the model relies on empirical estimates of migration elasticities that in turn depend in part on the degree of substitutability among types of labor and the costs of migration.

For most plausible scenarios that were tested, a much greater share of wage adjustment would occur in Mexico than in the United States. This result is caused primarily by the relative sizes of the two economies. Migration to the United States of unskilled labor would decline considerably less and the ratio of real U.S. to Mexican wages of skilled and unskilled workers combined would fall by much less than in the Hill-Mendez model. Reduced migration, of course, would result in lower expenditures on border control, education, and social services. In the United States, the real income of skilled workers and capital service owners would rise because Mexican exports, on average, rely more heavily on unskilled labor than do Mexican non-traded goods. Unskilled workers in the United States would suffer a slight decline in real income, but U.S. skilled workers and owners of capital services would benefit more from lower prices and thus enjoy increased real income.<sup>44</sup> Total real income in the United States would increase because of the trade creating effects of the FTA.

### Trade With Other Countries

The increase in United States-Mexico trade resulting from the reduction of trade barriers under an FTA would partly displace U.S. trade with other countries including Canada and those in Central and South America, the Caribbean, and Asia. The amounts of U.S. imports displaced would be small relative to the size of the U.S. economy since it would be only a portion of the increase in United States-Mexico trade, which itself is expected to be small. In addition, the displacement is likely to be small because the United States maintains relatively low tariffs and allows imports from many countries in Central and South America and the Caribbean, which compete most directly with Mexico, to enter duty free under the GSP program and the Caribbean Basin Economic Recovery Act.<sup>45</sup> Only part of the displacement of imports would constitute a trade diversion loss to the United States, since only part would comprise the replacement of lower cost suppliers with higher cost suppliers.

<sup>44</sup> Some plausible scenarios tested suggest the possibility that an FTA could increase the real income of U.S. unskilled workers. This outcome requires that the substitutability between Mexican imports and U.S. import-competing products be sufficiently limited. Little research exists about the actual degree of substitutability.

<sup>45</sup> Joseph McKinney and Glen Lich, Statement of the Regional Studies Center, Baylor University, before the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, June 14, 1990. The authors suggest that should serious trade displacement occur, the United States could unilaterally lower tariffs on the relevant products through these preference programs.

Although the displacement would be small in relation to the U.S. economy, some of our trading partners are concerned that the displacement of U.S. imports could be substantial in relation to their economies.<sup>46</sup> A discussion of the potential displacement of United States-Canada trade and Canada's concerns is provided in chapter 3 of this report.<sup>47</sup>

Some producers in the United States have expressed concerns that a United States-Mexico FTA would allow third countries to transship their goods through Mexico to the United States and thereby circumvent U.S. tariffs and other trade barriers.<sup>48</sup> The nature and the enforcement of the rules of origin in the agreement will determine the extent to which transshipment by third countries will be possible.

In particular, transshipment of Chilean exports through Mexico might be a concern if Chile and Mexico enter into an FTA. The two countries recently agreed to begin negotiation of an FTA. Even if the rules of origin under the United States-Mexico FTA do not adequately address transshipment, it is likely that a Mexico-Chile FTA would have little effect on the United States. Chile has an even smaller economy than Mexico and is a much smaller trading partner of the United States. Chile's GDP was \$25.3 billion in 1989.<sup>49</sup> It exported just \$1.3 billion to the United States in the same year and imported \$1.6 billion.<sup>50</sup> Some of Mexico's exports to and imports from the United States might be diverted to Chile, but the amounts can be expected to be small relative to the size of the U.S. economy. U.S. producers would benefit if goods produced jointly with Mexican producers qualify for duty-free treatment in Chile. These effects would obtain whether or not the United States and Mexico have an FTA. In addition, the United States could import more from Chile through Mexico, especially goods that are produced partly in both countries. However, the amount of imports that enter in this manner would depend on the rules of origin of the United States-Mexico FTA and the degree to which these are enforced.

<sup>46</sup> For example, see "Other Nations Fret Over Free-trade Pact," *Miami Herald*, Sept. 23, 1990. South Florida ports are concerned that their business could suffer as a result.

<sup>47</sup> For a full discussion of the concerns of third countries, see USITC Publication 2326, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexico Relations/Phase II: Summary of Views on Prospects for Future United States-Mexico Relations*, October 1990, pp. 1-25 to 1-30. See also USITC publication No. 2321, *Annual Report on the Impact of the Caribbean Economic Recovery Act on U.S. Industries and Consumers/Fifth Report 1989*, September 1990.

<sup>48</sup> For example, see submission to the ITC from the U.S. Chamber of Commerce, Nov. 28, 1990.

<sup>49</sup> CIA, *World Factbook 1990*.

<sup>50</sup> IMF, *Direction of Trade Statistics*, 1990.

## Chapter 3 Canada's Role In The United States-Mexican Negotiations

### Background

Trade is important to the Canadian economy, with one in three jobs directly associated with the external sector. The process that resulted in a bilateral agreement between Canada and the United States took three years to complete (1985-88); it generated a nationwide debate in Canada, while producing only minimal attention in the United States.<sup>1</sup> In Canada, the Parliamentary election of 1988 was considered to be a referendum on the pact.

Following the United States-Mexico decision in June 1990 to actively pursue negotiations toward a bilateral free trade agreement (FTA), Canada announced in September (with the acquiescence of the United States and Mexico) that it would participate in tripartite consultations leading to a decision on whether or not it would become a party in the negotiations toward a North American FTA.<sup>2</sup> The question has sparked a debate in Canada, not unlike that which accompanied consideration of the earlier bilateral agreement with the United States.<sup>3</sup>

### Issues Relating to Canadian Participation

The Canadian Government has indicated that it is interested in a broad agreement encompassing intellectual property rights, all goods and services, investment, and a range of issues similar to those under consideration in the Uruguay Round. Two-way trade between Canada and Mexico is only about \$2 billion compared

<sup>1</sup> It has been argued that the United States-Canada Free Trade Agreement would force Mexican accommodations with its North American trading partners. See "The Impact of the Agreement on Mexico," by Sidney Weintraub in *Making Free Trade Work*, Edited by Peter Morici. New York: Council on Foreign Relations Press, 1990.

<sup>2</sup> As of this writing, two consultative meetings have taken place to determine whether the full negotiations will be a bilateral or a trilateral process. The ultimate decision on this question is scheduled to be made by the end of January 1991.

<sup>3</sup> The two opposition parties in Canada have already expressed their opposition and/or strong reservations to the idea of Canadian participation in the free trade talks. Spokesmen for the New Democratic Party have gone so far as to declare that, should they win a majority in the next national election, not likely to be called before the fall of 1992 or early 1993, they would abrogate any North American pact that was consummated by the present Progressive-Conservative government. In November 1990, 77 percent of the electorate was against the notion of an FTA with Mexico and the United States. Forty nine percent of the Canadian public maintains that the United States-Canada FTA has hurt the Canadian economy, and is the cause of higher interest rates, greater inflation, and more unemployment.

An overview of opposition views following the announcement of Canada's decision to participate in the United States-Mexico talks is contained in: U.S. Department of State Telegram, September 25, 1990, Ottawa, Message Reference No. 07862.

with the \$163 billion trade between the United States and Canada,<sup>4</sup> and shipments from Mexico represent only 1.3 percent of Canada's total imports.<sup>5</sup> Eighty percent of Mexico's exports to Canada already enter free of duty. Thus, the impetus for Canadian participation appears to be fueled by the long-run potential for trade gains rather than short-term benefits.<sup>6</sup>

Canada's desire to expand its economic ties with Mexico, while important, may well be secondary to its desire to participate in any North American dialogue on trade. Canadian trade analysts have stated that Canada wishes to preserve its rights under the United States-Canada FTA<sup>7</sup> and address unanswered longer term questions (such as future energy flows of natural gas and oil, as well as trade in automobiles and parts).<sup>8</sup>

### Canadian Interest Groups and Their Positions

Some of the Canadian opposition to trade liberalization is from readily identifiable quarters such as organized labor and other sectors already feeling competitively stretched by imports. The Pro-Canada Network is one such group expressing union and nationalist sentiments.<sup>9</sup> A group called the Council of Canadians, which opposes the FTA with the United States, has expressed its opposition to another FTA.

<sup>4</sup> 1989 figures.

<sup>5</sup> U.S. Department of State Telegram, September 25, 1990, Ottawa, Message Reference No. 07862. Mexico ranked as Canada's 17th largest trading partner in 1988.

<sup>6</sup> Canada's chief negotiator for the United States-Canada pact, Simon Reisman, is quoted as saying: "We should be at the table not only to make sure our access to the U.S. market is not undermined by a U.S. Mexican agreement, but to take advantage of the longer-term opportunities which an increasingly prosperous 80-million-[Mexican] consumer market has to offer." Canada Press Service, EG 134, Aug. 16, 1990.

<sup>7</sup> Drew Fagan, "Canada joins trade talks," *The Globe and Mail*, Sept. 25, 1990, p. B1.

<sup>8</sup> Among the reasons given in favor of Canada's participation are the following—

1. Mexico is at an economic crossroads and could very well develop into a competitor for Canada's share of exports to certain U.S. markets.

2. Support of the traditional Canadian position that trade rather than aid is an appropriate vehicle for third world development.

3. Substantial trade and, particularly, investment diversion would occur if Canada remained outside the agreement and the United States became the sole North American locus with duty-free access to all three markets.

4. The perception that economic growth can be based on inward-looking protectionist policies has been generally discredited.

5. Whatever comes out of the negotiations is likely to expand eventually to Central and South America, and therefore Canada needs to be an integral part of the process.

A concise overview of the arguments favoring Canadian participation in the bilateral United States-Mexico discussions is contained in: "Mexico-U.S. free trade talks: Why Canada should get involved," *Econoscope*, September 1990, Royal Bank of Canada.

<sup>9</sup> The Canadian Labor Congress is a member of the Pro-Canada Network.

Among the organizations aligned in favor of Canadian participation in a broader FTA are the Business Council on National Issues, a private sector group; the Canadian Manufacturers' Association; the Canadian Exporters' Association; the C.D. Howe Institute;<sup>10</sup> Canada West Foundation;<sup>11</sup> the Institute for Research on Public Policy;<sup>12</sup> and the Canadian Chamber of Commerce.

### *Issues of Interest to Canada*

Observers point to a number of issues that would be important to the Canadians in any attempt to broaden the FTA. Among these would be—

1. tariffs—any attempt to further lower duties would be of major importance.
2. rules of origin—any North American agreement would require complex rules governing the production of goods within the free trade area to ensure that goods or parts of goods produced outside the area are not accorded the same special tariff status as those produced within the area.
3. energy—a very sensitive area for Mexico, and one in which Canada would want to be included.
4. autos and auto parts—the United States and Canadian auto industries are already very closely integrated and any change in the balance in this sector would be of considerable interest to the Canadians.
5. textiles, clothing and footwear—this is an area where Mexico is likely to seek major concessions and where Canadian interests and concerns are similar to those of the United States.
6. intellectual property rights—the area of Mexico's compulsory licensing for pharmaceuticals is deemed particularly important.
7. standards—an area where progress under the U.S. bilateral agreement is still pending.
8. dispute settlement—a very important topic where concerns remain from

<sup>10</sup> Richard G. Lipsey, "Canada at the U.S.-Mexico Free Trade Dance: Wallflower or Partner?," *Commentary*, No. 20, August 1990.

<sup>11</sup> Edward J. Chambers and Michael B. Percy, "The Mexican Hat in the Free Trade Ring: Western Canada and U.S.-Mexico Free Trade," Calgary: Canada West Foundation, September 1990.

<sup>12</sup> *A North American Free Trade Agreement: The Strategic Implications for Canada*, Michael Hart, Ottawa: The Institute for Research on Public Policy, 1990.

the United States-Canada pact, and one anticipated to grow more complex because in the Canadian view the Mexican legal system is not synchronous with the more closely aligned Canadian and U.S. procedures for handling trade disputes.

While the United States is the main trading partner of both Canada and Mexico, there are sizeable differences in the degree of influence that each partner wields in the U.S. market. Canada accounts for 18.8 percent of U.S. imports, while Mexico's share is 5.6 percent.<sup>13</sup> In the market for total U.S. exports, Canada accounts for 21.5 percent and Mexico accounts for 6.9 percent. Recent research has shown that both partners are competing in similar broad segments of the U.S. market.<sup>14</sup>

### **The Effects of Canadian Participation in an FTA**

If Canada joins the United States and Mexico in an FTA, there will be a single North American market in goods and services comprising the three economies, with few trade restrictions. If the United States and Mexico enter into an FTA without Canada, the three economies will be linked by two overlapping FTAs with the United States as the common member.

In either case, U.S. imports from and exports to Canada would likely decrease, but by very small amounts relative to the size of the U.S. economy. United States-Canada trade would decrease because the increase in United States-Mexico trade resulting from free trade would partly displace it. The amount that would be so displaced is only a fraction of the increase in United States-Mexico trade, which itself is expected to be small.<sup>15</sup> If the FTA is trilateral, it will cause an additional decrease in United States-Canada trade because of the increase in Canada-Mexico trade. But this

<sup>13</sup> U.S. International Trade Commission, *International Economic Review, Chartbook*, Special Edition, May 1990 and International Monetary Fund, *Direction of Trade Statistics, Yearbook 1990*.

<sup>14</sup> In an attempt to show where diversion of Mexican trade may occur as a result of the United States-Canada FTA, Weintraub shows the products from Mexico that compete with Canadian products in the U.S. market. See Morici, pp. 111-115. Among the major sectors are: automobiles and parts, petrochemicals, iron and steel, paper products, textiles and apparel, and certain machinery. When the list is expanded to include those areas where Mexico is exhibiting rapid growth in exports of manufactures, television receivers, furniture, and products of various metals are also included. Hart's research concentrated on broader industrial segments, but specifically cites the areas of power generating equipment, transportation, and telecommunications equipment as industries of intensifying trade competition between Mexico and Canada in the U.S. market.

<sup>15</sup> For a discussion of the potential for increased United States-Mexico trade to displace United States-Canada trade see Michael Hart, *A North American Free Trade Agreement: The Strategic Implications for Canada*, Ottawa: The Institute for Research on Public Policy, p. 73.

effect would be relatively small because of the much smaller sizes of the Mexican and Canadian economies.<sup>16</sup>

### *Effects on the United States*

The effects on the United States of free trade with Mexico and Canada would be similar regardless of whether the United States becomes a party to separate bilateral agreements or a trilateral agreement. The major difference would be that under bilateral agreements U.S. trade with both countries would be greater because Mexico and Canada would maintain barriers on trade with each other.

The greater trade that would result under separate agreements would be a benefit to the United States, but would be very small for several reasons. First, because Canada and Mexico are much smaller economies than the United States, the trade created between them under a trilateral FTA and partly diverted from the United States, would be small relative to the size of the U.S. economy. Canada's exports to Mexico were only US\$ 525 million in 1989 and its imports from Mexico were US\$ 1434 million.<sup>17</sup> Second, under two bilateral agreements, Canada and Mexico could mitigate the benefits of increased trade to the United States by lowering trade restrictions between them independently of the United States and would have an incentive to do so to capture the benefits of increased trade between them. Third, bilateral FTAs would substantially link the Canadian and Mexican economies anyway. Goods and services produced partly in Canada and partly in the United States would receive duty-free entry into Mexico; likewise, goods and services produced partly in Mexico and partly in the United States would receive duty-free entry into Canada if they meet the rule-of-origin requirements of the pertinent FTA. Additionally, Canadian goods could be exported to the United States

<sup>16</sup> Commission staff analyzed the impact of Canadian participation in an FTA on United States-Canada trade and United States-Mexico trade. Commission staff did not analyze the effects on trade between Mexico, Canada, and the United States as a regional bloc and the rest of the world.

<sup>17</sup> IMF, *Direction of Trade Statistics: Yearbook 1990*, p. 124.

to replace comparable U.S. goods exported to Mexico and Mexican goods could so replace U.S. goods exported to Canada. As a result, much of the trade creation between Canada and Mexico that would be generated by a trilateral FTA would also be generated by bilateral FTAs.

### *Effects on Canada and Mexico*

The difference in the effects of separate bilateral FTAs and a trilateral FTA would be larger for Canada and Mexico relative to the sizes of their economies than for the United States. Canada would suffer a loss of trade with the United States because of increased trade between the United States and Mexico in either case and an additional loss of the foregone benefits of increased trade with Mexico if the FTA is bilateral. It would receive no compensating benefits. These possibilities have caused concern in Canada and generated support for a trilateral FTA.<sup>18</sup> Canadians are particularly concerned about the automotive industry, which they believe might substantially move to Mexico.<sup>19</sup>

Mexico's only loss from not having Canada as a third member of an FTA with the United States would be the foregone benefits of free trade with Canada. If the negotiations for a trilateral FTA fail or delay completion of an agreement, as some are concerned,<sup>20</sup> Mexico would lose the much greater benefits generated from free trade with the United States. As a result, there has been a great deal of interest in Mexico in reaching an agreement with the United States and less in adding Canada as a third member.<sup>21</sup>

<sup>18</sup> For a discussion of the integration of the three economies and the effects of a United States-Mexico or United States-Mexico-Canada FTA on Canada, see Hart, pp. 70-75. See also Ronald J. Wonnacott, "U.S. Hub-and-Spoke Bilaterals and the Multilateral Trading System," unpublished.

<sup>19</sup> Jeffrey J. Schott, Gary C. Hufbauer, and Lee L. Remick, "Annotated Agenda: Prospects for Freer Trade in North America," Institute for International Economics, unpublished, pp. 5-6, 18.

<sup>20</sup> "Mexico Worried by Canada Role in Trade Talks," *The Wall Street Journal*, Sept. 28, 1990.

<sup>21</sup> Eduardo Andere, "Strategic Considerations in the Free Trade Agreement Given the Involvement of Canada," *The Mexican Economy Monthly Report*, September 1990, p. 21.



# Chapter 4

## The Likely Impact on Major U.S. Industries

### Introduction

This chapter contains an analysis of the likely economic impact of an FTA between the United States and Mexico on U.S. trade and production in key agricultural, manufacturing, and services industries. Some of the industries covered in the analysis were identified by the House Ways and Means Committee and the Senate Finance Committee in their joint letter to the Commission requesting the study (see appendix A). Other industries were added by the Commission staff.<sup>1</sup> The covered industries are subject to tariffs and/or nontariff barriers (NTBs), including foreign investment restrictions. The removal of these United States and Mexican trade and investment barriers under an FTA has the potential of creating additional trade between the United States and Mexico in these industries. However, it is possible that U.S. investments and export opportunities in Mexico arising from an FTA will be limited, at least in the short term, given among other things the underdeveloped state of Mexico's infrastructure.

The sector analysis is based on three elements: (1) a quantitative analysis of relationships between changes in import and export prices due to removal of tariffs and NTBs and resultant changes in import and export levels of affected industries; (2) interviews with experts in trade, industry, government, and academia; and (3) a qualitative analysis of nonprice factors such as investment restrictions that may affect the development of U.S. trade in particular industries. The Commission's analysis focused on the likely impact of an FTA on U.S. trade with Mexico, Canada, and other countries and on production and employment levels in the U.S. industries.

In conducting the analysis, the Commission made two key assumptions. First, it assumed that Canada would participate in the negotiation of an FTA, thereby

<sup>1</sup> The Commission staff selected industries with significant trade barriers and levels of trade between Mexico and the United States. Criteria similar to those used in an earlier USITC investigation to determine industries with significant trade barriers were also used in this analysis. See USITC, *The Economic Effects of Significant U.S. Import Restraints, Phase I: Manufacturing*, Investigation No. 332-262, USITC Publication 2222, October 1989. The selection criteria used in this investigation were ad valorem tariff equivalents of 10 percent or more and/or free-trade import and export levels of \$100 million or more.

In addition, industry specialists and trade policy experts identified, for inclusion in the analysis, several other industries that might be significantly affected by an FTA in the long run. See USITC, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexican Relations, Phase II: Summary of Views*, Investigation No. 332-282, USITC Publication 2326, October 1990.

resulting in a North American free trade area. Second, it assumed that the rules of origin adopted under an FTA with Mexico would be similar to those under the U.S.-Canada FTA.<sup>2</sup> In addition, the Commission used the effective rate of duty on U.S. imports from Mexico, rather than the nominal rate, to account for the relatively large amount of trade that enters duty free under the Generalized System of Preferences (GSP) and at reduced duties under the maquiladora program. Under this program, U.S. components enter Mexico duty free for processing or assembly and the processed or otherwise manufactured products enter the United States on a preferential basis with only the value added in Mexico subject to duty.<sup>3</sup> To analyze the effects of an FTA, estimates were made of the increase in the value-added portion of these imports from Mexico. Finally, the Commission was unable to factor into the model any changes in tariffs and NTBs that can be expected from the Uruguay Round negotiations, because of the remaining uncertainty over the results of the Round. However, to the extent that the Uruguay Round reduces tariffs and NTBs, the additional effect of an FTA with Mexico will be less pronounced.

### Methodology for Quantitative Analysis

This study uses a partial equilibrium framework where United States and Mexican products are treated as imperfect substitutes in both the United States and Mexican markets. In imperfect-substitute models, consumers distinguish explicitly between imported and domestic products.<sup>4</sup>

In the Commission staff model, the elimination of U.S. import restraints against Mexican goods results in a lower price of these goods to U.S. consumers. As a result, consumers purchase more Mexican goods, and the demand faced by producers of U.S. imperfect-substitute products declines. U.S. suppliers of these import-competing goods respond to the reduction in demand by lowering both production and prices. The Commission staff model permits estimation of these effects. In the case of U.S. export industries, a similar approach is followed. The elimination of Mexican im-

<sup>2</sup> The rules of origin under the United States-Canada FTA are used to determine whether goods traded between the two nations are eligible for preferential duty treatment under the FTA. In general, to be entitled to such treatment, goods must be made wholly in one or both FTA nations or, if the goods contain third-country materials, the materials must have been transformed in one or both FTA nations in a manner that is physically and commercially significant to effect a change in tariff classification in the Harmonized Tariff Schedule of the United States (HTS).

<sup>3</sup> U.S. imports from Mexico under the maquiladora arrangement are dutiable under HTS subheadings 9802.00.60 and 9802.00.80, formerly known as the 806.30 and 807.00 provisions.

<sup>4</sup> The imperfect-substitutes, or Armington, assumption is common in applied research in international trade. For further discussion of this assumption and its implications, see P.S. Armington, "A Theory of Demand for Products Distinguished by Place of Production," *IMF Staff Papers*, March 1969, and USITC, *Effects of U.S. Import Restraints, Phase I*, Investigation No. 332-262, USITC Publication 2222, October 1989.

port restraints results in a lower Mexican price of U.S. goods. U.S. suppliers respond to the increased demand by increasing both production and price. The model estimates these effects. No estimates are made of the effects of the FTA on Mexico's domestic industries.

For both import-competing and exporting U.S. industries, effects are reported qualitatively, in compliance with restrictions placed on the study in the request letter (see appendix A). The Commission staff model requires as inputs quantitative data on production, consumption, and trade as well as estimates of market behavior parameters (substitution, demand, and supply elasticities). The estimated quantitative effects are reported in three qualitative categories: negligible, moderate, or significant in either a beneficial or adverse direction.

The effect of an FTA, where United States and Mexican tariffs and NTBs are removed, is analyzed in a two-step simulation. In the first step, U.S. tariffs and the tariff equivalents for U.S. NTBs facing Mexico are removed while holding all other factors constant.<sup>5</sup> This is used to look at the potential decline in production in import-competing industries. In this first step, the simulation provides qualitative estimates of the expected decline in U.S. production and sales, the expected decline in Canadian and other non-Mexican imports, and the potential increase in Mexican imports to the U.S. market.

In the second step, a similar exercise is conducted where Mexican tariffs and the tariff equivalents for Mexican NTBs are removed while holding all other factors constant.<sup>6</sup> Qualitative estimates are provided of the expected increase in United States and Canadian export-industry production and subsequent United States and Canadian exports to the Mexican market. For both sets of exercises, short-run and long-run estimates of the FTA are provided where short-run adjustments are defined as those that would occur within 1 year and long-run adjustments are defined as those that would occur within 5 years.

The Commission staff methodology estimated the effect of removing U.S. trade barriers on import-competing industries, and the effect of removing Mexican trade barriers on U.S. export industries in a two-step exercise. This two-step method was employed because of the high degree of differentiation between imports and exports in United States-Mexico trade. In addition,

<sup>5</sup> Most important, Mexican tariffs and NTBs are held constant. Additionally, all other factors—for example, foreign debt, interest rates, the costs associated with such factors as environmental compliance and infrastructure improvements, etc.—are held constant in both the United States and Mexico.

<sup>6</sup> Most important, U.S. tariffs and NTBs are held constant. Additionally, all other factors—for example, foreign debt, interest rates, the costs associated with such factors as environmental compliance and infrastructure improvements, etc.—are held constant in both the United States and Mexico.

this approach was used because of the method in which trade data are collected and reported. Certainly, any approach that analyzes two-way trade on a sectoral level must account for the complexities inherent in most sources of published trade data.

First, disaggregation of some of the broad industry categories into exporting and import-competing sub-categories shows that much of the two-way trade within the broader categories does not involve complex interactions because many of these products are clearly differentiated. For example, pharmaceuticals and petrochemicals, two distinct product categories, were analyzed as subcomponents of the chemical industry.

Second, in other instances such as cement, the same product is both imported and exported. In these cases, the export and import-competing products are often distinguished by geographic region.

Finally, trade data corresponding to the tariff code segregate trade that is covered by HTS subheadings 9802.00.60 and 9802.00.80 into their own categories. These tariff items include imports of products containing duty-exempt U.S. value-added. In each industry category where 9802.00.60 and 9802.00.80 items are an important component of the trade—such as automotive products, electronic equipment, and apparel—the Commission staff analyzed these imports separately, as a single item, and treated them as imports of Mexican value-added on products originating in many different industries.

Consequently, for these reasons, interactions between U.S. exports and imports were either negligible or absent in the data for the industry categories analyzed. As a result, each industry could be disaggregated into its import-competing sub-industry component and its exporting sub-industry component and, therefore, appropriately analyzed as two separate elements in the two-step procedure described. Indeed, the Commission staff's qualitative estimates would not have changed discernibly had the partial equilibrium analysis been modeled with the sub-industry components integrated and both the United States and Mexican tariffs and NTBs removed simultaneously.

Net effects on the aggregate industry categories may be calculated by combining estimated effects of removing U.S. and Mexican barriers on the two sub-industries in each case. However, net effects tend to conceal the important distributional impact of trade liberalization on portions of industries that could be winners and losers. Moreover, estimates of net effects tend to suffer from greater uncertainty than the estimates of effects on the individual component sub-industries.<sup>7</sup>

<sup>7</sup> The net effects are derived by adding independent estimates of the adjustments in the export and import-competing subindustries. Because of the variance in the estimates of the subindustry effects, the variance of their sum will equal the sum of their variances, plus any covariance. Thus, in general, the variance of the net effect estimate will exceed the variance of either of the subindustry estimates considered alone.

Additional caveats should be noted about the sector analysis. The Commission model was developed to analyze trade and production/employment impacts at the national level and not at the regional level. To conduct a rigorous and systematic analysis at a regional level would have required a different modeling approach and a different set of data not readily available. A qualitative analysis was conducted on the basis of the geographic concentration of the domestic industries. In general, it was assumed that the impact would be proportional to the regional distribution of the industry's domestic operations. In the case of services industries, the application of the Commission model was precluded because of fragmentary data. Thus, a qualitative analysis was conducted for services industries by examining the relative size of the services markets in the United States, Mexico, and Canada, the levels of U.S. investment and participation in Mexico's services industries, and the infrastructure in place to support Mexican demand for services. Information was obtained by interviewing experts in industry, government, and academia, as well as reviewing current trade literature and research.

There were limited published estimates for tariff equivalents of NTBs. Further, because of the limited scope and timeframe of this investigation, no estimates were made of tariff equivalents of United States and Mexican NTBs. Therefore, where no tariff equivalents for NTBs were available, the Commission staff used the effects of the tariff removal as a lower bound estimate of the effects of an FTA.<sup>8</sup>

Information on U.S. and Mexican trade, production, consumption, and investment for each covered industry is presented in table 4-1.

## Agriculture

Mexico is the second largest supplier of agricultural products<sup>9</sup> to the United States after Canada, and the

<sup>8</sup> Existing estimates of tariff equivalents for U.S. NTBs focus on quotas and voluntary restraint agreements. For estimates of these tariff equivalents, see USITC, *Effects of U.S. Import Restraints, Phase I*, Investigation No. 332-262, USITC Publication 2222, October 1989; USITC, *The Economic Effects of Significant U.S. Import Restraints, Phase II: Agricultural Products and Natural Resources*, Investigation No. 332-262, USITC Publication 2314, September 1990; and USITC, *Estimated Tariff Equivalents of U.S. Quotas on Agricultural Imports and Analysis of Competitive Conditions in U.S. and Foreign Markets for Sugar, Meat, Peanuts, Cotton, and Dairy Products*, Investigation No. 332-281, USITC Publication 2276, April 1990. In addition, estimates of effective rates of protection calculated by the U.S. Department of Agriculture were used for certain agricultural products. See the section "Agriculture" for further discussion. Currently, no estimates of tariff equivalents exist for other U.S. border measures such as phytosanitary restrictions. In addition, no reliable estimates of tariff equivalents for Mexican NTBs and border measures exist.

<sup>9</sup> Agricultural products covered here are classified in the HTS under chapters 1-24, 41, and 43, which include agriculture, prepared foods, beverages, tobacco, and kindred products.

third largest export market for U.S. agricultural products after Japan and the Soviet Union. About 40 percent of the imports from Mexico enter free of duty and the remainder are dutiable at a trade-weighted average rate of about 7 percent ad valorem. Mexico's trade-weighted tariff on U.S. agricultural products averages about 11 percent. Also affecting U.S. agricultural trade with Mexico are both nations' phytosanitary rules, Mexican import licensing requirements, and U.S. marketing orders.

This section examines the likely impact of an FTA with Mexico on the following agricultural groups: horticultural products; grains and oilseeds; livestock; fish and fish products; and alcoholic beverages. These products represent about three-fourths of the total value of U.S. agricultural trade with Mexico, as shown in figure 4-1.

### *Horticultural Products*<sup>10</sup>

Mexico is by far the largest foreign supplier, and the seventh largest U.S. export market for horticultural products. Duties imposed by both the United States and Mexico are relatively high. Mexican import licensing requirements, U.S. marketing orders, and phytosanitary rules in both countries also limit bilateral trade. The elimination of tariffs and NTBs under an FTA would generate a significant increase in U.S. imports from Mexico and a moderate increase in U.S. exports to Mexico. Mexican producers are able to supply the U.S. market at much lower costs with many of the same products grown or processed in the United States. This is particularly true for citrus crops and winter vegetables that are manually harvested. U.S. growers of these products are expected to experience losses in production, particularly growers in Florida, California, and other warm-climate States who compete directly with products during the same growing seasons in Mexico. U.S. processors of these crops are also expected to experience production losses.

On the other hand, U.S. producers of temperate-climate products and certain processed products such as canned potatoes and dried beans are likely to benefit moderately from an opening of the Mexican market in the long term. In the short term, however, the underdeveloped channels of distribution and the unequal distribution of consumer income in Mexico may limit U.S. export potential. An FTA with Mexico would also likely cause a decline in U.S. imports from Latin American nations that tend to export the same type of goods as Mexico. The impact of an FTA with Mexico on U.S. trade with Canada would be negligible because of differences in product mix.

<sup>10</sup> Includes all fruits and vegetables (fresh or processed), fresh cut flowers, live plants and other foliage, nuts, and certain spices such as ginger, thyme, and curry.

Table 4-1  
Trade and industry profile of key U.S. and Mexican sectors

Item	Agri- culture <sup>1</sup>	Steel mill products	Glass products	Cement	Energy products	Chemicals	Automotive products	Machinery and equipment	Electronic equipment	Textiles and apparel
<b>Trade Profile</b>										
U.S. exports:										
1989 total (million dollars)	44,330	<sup>2</sup> 2,950	1,199	25	5,298	36,485	<sup>2</sup> 25,806	<sup>2</sup> 20,731	48,214	5,787
Change, 1985-89 (percent)	12	<sup>2</sup> 47	16	18	-1	11	<sup>2</sup> 7	<sup>2</sup> 3	22	20
U.S. imports:										
1989 total (million dollars)	28,099	9,750	1,340	492	<sup>3</sup> 50,762	20,519	<sup>2</sup> 81,951	<sup>2</sup> 20,057	69,054	30,153
Change, 1985-89 (percent)	3	-3	9	14	<sup>(4)</sup>	10	<sup>2</sup> 7	<sup>2</sup> -5	16	11
U.S. trade balance, 1989	16,231	-6,800	-141	-466	-45,464	15,966	<sup>2</sup> -56,145	<sup>2</sup> 674	-20,840	-24,366
U.S. exports to Mexico:										
1989 total (million dollars)	2,736	<sup>2</sup> 427	65	2	688	2,195	<sup>2</sup> 3,400	<sup>2</sup> 4,800	<sup>2</sup> 3,420	704
Change, 1985-89 (percent)	18	<sup>2</sup> 33	25	9	5	14	<sup>2</sup> 18	<sup>2</sup> 9	<sup>2</sup> 21	25
U.S. imports from Mexico:										
1989 total (million dollars)	2,762	252	107	118	4,199	570	<sup>2</sup> 4,858	<sup>2</sup> 3,767	<sup>2</sup> 4,690	755
Change, 1985-89 (percent)	9	24	14	11	-13	11	<sup>2</sup> 21	<sup>2</sup> 12	<sup>2</sup> 21	19
U.S. trade balance with Mexico, 1989 (million dollars)	-26	<sup>2</sup> 175	-42	-116	-3,511	1,625	<sup>2</sup> -1,458	<sup>2</sup> 1,033	<sup>2</sup> -1,270	-51
U.S. exports to Canada:										
1989 total (million dollars)	2,434	<sup>2</sup> 534	335	19	735	4,210	<sup>2</sup> 17,389	<sup>2</sup> 7,064	<sup>2</sup> 6,067	771
Change, 1985-89 (percent)	10	<sup>2</sup> 14	5	-1	-2	20	<sup>2</sup> 1	<sup>2</sup> -4	<sup>2</sup> 12	12
U.S. imports from Canada:										
1989 total (million dollars)	4,547	1,698	121	133	7,072	3,928	<sup>2</sup> 28,098	<sup>2</sup> 7,592	<sup>2</sup> 4,319	603
Change, 1985-89 (percent)	10	21	7	6	-6	10	<sup>2</sup> 8	<sup>2</sup> -3	<sup>2</sup> 19	15
U.S. trade balance with Canada, 1989 (million dollars)	-2,113	<sup>2</sup> -1,164	214	-114	-6,337	282	<sup>2</sup> -10,709	<sup>2</sup> -530	<sup>2</sup> -1,748	168
Mexico's exports:										
1989 total (million dollars)	<sup>2</sup> 3,100	<sup>2</sup> 720	<sup>2</sup> 5167	<sup>2</sup> 125	7,733	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 5,470	<sup>2</sup> 5,785	<sup>2</sup> 830
U.S. as percent of total	<sup>2</sup> 90	<sup>2</sup> 43	<sup>2</sup> 89	<sup>2</sup> 95	85	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 72	<sup>2</sup> 81	<sup>2</sup> 91
Mexico's imports:										
1989 total (million dollars)	<sup>2</sup> 3,700	<sup>2</sup> 771	<sup>2</sup> 564	22	778	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 5,552	<sup>2</sup> 7,469	<sup>2</sup> 1,100
U.S. as percent of total	<sup>2</sup> 75	<sup>2</sup> 65	<sup>2</sup> 70	<sup>2</sup> 100	95	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 68	<sup>2</sup> 46	<sup>2</sup> 64
Mexico's trade balance, 1989 (million dollars)	<sup>2</sup> -600	<sup>2</sup> -51	<sup>2</sup> 5103	<sup>2</sup> 123	6,955	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> -82	<sup>2</sup> -1,684	<sup>2</sup> -270
Average tariffs, 1990:										
United States (percent)	4	4	6	0	<sup>2</sup> 1	24	<sup>2</sup> 3	<sup>2</sup> 7	25	76
Mexico (percent)	<sup>2</sup> 11	10	16	10	<sup>2</sup> 6	<sup>2</sup> 15	<sup>2</sup> 14	<sup>2</sup> 15	<sup>2</sup> 16	12-20
Nontariff barriers: <sup>8</sup>										
United States	A,C,G	<sup>(9)</sup>	None	None	None	None	E	None	None	A
Mexico	B,G	None	None	None	B,H	H,F	H	None	D,E,F	<sup>10</sup> B
<b>Foreign Direct Investment, 1988</b>										
United States in										
Mexico (million dollars)	<sup>2</sup> 20	0	<sup>1</sup> 782	0	0	<sup>(12)</sup>	<sup>2</sup> 1,500	<sup>(6)</sup>	<sup>(6)</sup>	<sup>(6)</sup>
Mexico in United States										
(million dollars)	<sup>(6)</sup>	0	<sup>13</sup> 519	<sup>2</sup> 100	0	<sup>(6)</sup>	<sup>(6)</sup>	<sup>(6)</sup>	<sup>(6)</sup>	<sup>(6)</sup>

See footnotes at end of table.

Table 4-1—Continued  
Trade and industry profile of key U.S. and Mexican sectors

Item	Agriculture <sup>1</sup>	Steel mill products	Glass products	Cement	Energy products	Chemicals	Automotive products	Machinery and equipment	Electronic equipment	Textiles and apparel
<b>Industry Profile</b>										
U.S. shipments:										
1989 total (million dollars)	<sup>2</sup> 110,000	<sup>2</sup> 52,110	13,016	4,243	221,398	<sup>2</sup> 274,459	<sup>2</sup> 303,806	<sup>2</sup> 91,800	<sup>2</sup> 192,700	127,162
Change, 1985-89 (percent)	<sup>2</sup> 5	<sup>2</sup> 3	<sup>(6)</sup>	-1	13	10	<sup>2</sup> 4	<sup>2</sup> 4	<sup>2</sup> 6	4
U.S. employment:										
1989 total (1,000 persons)	<sup>(6)</sup>	277	<sup>14</sup> 143	20	275	<sup>2</sup> 835	<sup>2</sup> 992	<sup>2</sup> 110	<sup>2</sup> 2,000	1,818
Change, 1985-89 (percent)	<sup>(6)</sup>	-2	<sup>(6)</sup>	-9	-6	-1	-1	<sup>2</sup> 4	<sup>2</sup> 3	<sup>(4)</sup>
U.S. capacity utilization:										
1989 average (percent)	<sup>(6)</sup>	84	<sup>(6)</sup>	83	100	87	79	<sup>2</sup> 77	<sup>2</sup> 78	<sup>2</sup> 79
Average, 1985-89 (percent)	<sup>(6)</sup>	76	<sup>(6)</sup>	<sup>(6)</sup>	100	86	77	<sup>2</sup> 74	<sup>2</sup> 77	<sup>2</sup> 77
Mexican shipments:										
1989 total (million dollars)	<sup>2</sup> 18,000	<sup>2</sup> 3,341	<sup>2</sup> 1,100	<sup>2</sup> 1,100	<sup>2</sup> 1,798	<sup>2</sup> 12,446	<sup>2</sup> 12,834	<sup>2</sup> 6,260	<sup>2</sup> 6,500	<sup>(6)</sup>
Change, 1985-89 (percent)	<sup>2</sup> 3	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 72	<sup>2</sup> 1	<sup>2</sup> 91	<sup>2</sup> 16	<sup>2</sup> 10	<sup>2</sup> 21	<sup>(15)</sup>
Mexican employment:										
1989 total (1,000 persons)	<sup>(6)</sup>	<sup>2</sup> 274.3	38	210	2175	<sup>2</sup> 416	<sup>2</sup> 527	<sup>2</sup> 70	<sup>2</sup> 250	<sup>2</sup> 758
Change, 1985-89 (percent)	<sup>(6)</sup>	-6	<sup>(6)</sup>	<sup>2</sup> 9	<sup>2</sup> 4	<sup>2</sup> 44	<sup>2</sup> 12	<sup>2</sup> 7	<sup>2</sup> 21	<sup>(6)</sup>
Mexican capacity utilization:										
1989 average (percent)	<sup>(6)</sup>	67	<sup>(6)</sup>	<sup>2</sup> 86	<sup>2</sup> 80	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 57	<sup>(6)</sup>	90
Average, 1985-89 (percent)	<sup>(6)</sup>	62	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 80	<sup>(6)</sup>	<sup>(6)</sup>	<sup>2</sup> 55	<sup>(6)</sup>	<sup>(6)</sup>
<b>U.S. Consumption</b>										
1989 total (million dollars)	<sup>2</sup> 94,000	<sup>2</sup> 58,910	13,157	4,709	266,862	<sup>2</sup> 258,493	<sup>2</sup> 359,951	<sup>2</sup> 91,126	<sup>2</sup> 213,540	151,528
Change, 1985-89 (percent)	<sup>2</sup> 6	1	<sup>(6)</sup>	<sup>(16)</sup>	14	10	<sup>2</sup> 5	<sup>2</sup> 5	<sup>2</sup> 6	4
U.S. import market share, 1989:										
Overall (percent)	<sup>2</sup> 10	17	10	10	19	8	<sup>2</sup> 23	<sup>2</sup> 22	<sup>2</sup> 32	20
Mexico (percent)	<sup>2</sup> 2	<sup>(16)</sup>	1	3	2	<sup>(16)</sup>	<sup>2</sup> 1	<sup>2</sup> 4	<sup>2</sup> 2	<sup>(16)</sup>
Canada (percent)	<sup>2</sup> 2	3	1	3	3	2	<sup>2</sup> 8	<sup>2</sup> 9	<sup>2</sup> 2	<sup>(16)</sup>

<sup>1</sup> Data under "trade profile" include trade in products directly and indirectly related to agriculture; indirectly related products are those that have been further processed, including food, beverages, tobacco, and kindred products. The data under "foreign direct investment," "industry profile," and "U.S. consumption" cover only products directly related to agricultural activities.

<sup>2</sup> Estimated.

<sup>3</sup> Data in terms of value indicate that U.S. imports of energy products declined during 1985-89; in terms of quantity, however, imports increased significantly.

<sup>4</sup> Less than -0.5 percent.

<sup>5</sup> Data are for 1988.

<sup>6</sup> Not available.

<sup>7</sup> Represents the estimated effective rate of duty on U.S. imports from Mexico in 1989.

<sup>8</sup> The following coding system is used to describe nontariff barriers in each sector: A-quantitative restraints, B-import-licensing requirements, C-marketing orders, D-procurement preferences, E-standards, F-intellectual property rights protection, G-health and sanitary requirements, H-investment and/or market access restrictions.

<sup>9</sup> The voluntary restraint agreement (VRA) that currently restricts exports of steel from Mexico to the United States is scheduled to expire in March 1992.

<sup>10</sup> Mexico requires import licenses for six textile mill products.

<sup>11</sup> Represents total assets of U.S. companies' foreign affiliates producing all glass products in Latin America.

<sup>12</sup> Not available. Mexico limits foreign investment to 49 percent for industries defined as "secondary petrochemical" and prohibits in industries defined as "primary petrochemical."

<sup>13</sup> Represents maximum total assets of U.S. affiliates to Latin American companies producing all stone, clay, and glass products in the United States.

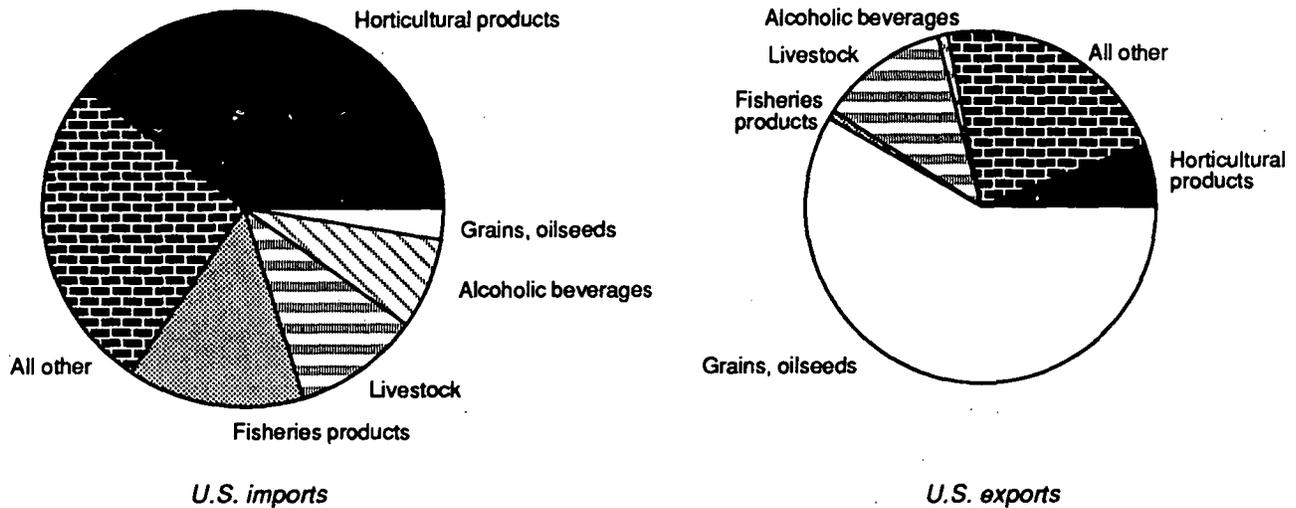
<sup>14</sup> Represents 1987 employment for SICs 3211 (flat glass), 3221 (glass containers), 3229 (pressed and blown glass), and 3231 (products of purchased glass).

<sup>15</sup> The average annual growth for Mexico's non-maquila textile and apparel production was 0.2 percent and for the maquila textile and apparel production, 17 percent.

<sup>16</sup> Less than 0.5 percent.

4-5 Note.—The percentage change shown for 1985-89, with the exception of capacity utilization, represents the average annual rate of change.

**Figure 4-1**  
**United States-Mexico agricultural trade, value by commodity group, 1989**



Source: Compiled by the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce.

### Industry profile

The U.S. horticultural product industry consists of produce farmers, which produce an estimated \$20 billion in horticultural crops annually, and processors, which ship roughly \$40 billion of canned and frozen products each year. The processing industry, though consisting of over 2,000 firms, is dominated by several large multinational firms that have facilities at home and abroad, including in Mexico and Canada. Most domestic fresh product is grown and processed in warm-weather States such as California and Florida. Other States produce mostly temperate-climate crops such as apples, pears, berries, other noncitrus fruits, and potatoes, and greenhouse products such as mushrooms and cut flowers.

Several thousand small family farms in Mexico produce a variety of fresh fruits, vegetables, and cut flowers for local consumption. Commercial output, however, is largely limited to several high-value crops such as citrus and tropical fruits, and vegetables such as tomatoes, asparagus, broccoli, and cauliflower. A large and diverse processing industry has emerged in the 1980s, spurred in part by U.S. investment. Reportedly, 12 of the 73 processing plants in Mexico are owned or otherwise affiliated with U.S. firms. U.S. investment

in Mexico's food processing industry, after falling 17 percent annually during 1983-88, rebounded by 81 percent in 1989 to \$466 million. The turnaround stems partly from recent changes made by Mexico in its foreign investment rules.

The competitive factors affecting the horticultural products industry include labor and land costs, technology, water resources, climate, and transportation. Although the United States has higher labor costs than Mexico, it has greater water resources and a better transportation infrastructure. The United States has more fertile land and a more diversified climate, enabling it to produce a wider assortment of fruits and vegetables. U.S. growers and processors also have a technological advantage, but foreign investment in Mexico's processing industry has narrowed the gap. In fact, trade sources report that the existence of relatively new vegetable-freezing plants in Mexico has closed the technology gap for products such as broccoli and cauliflower.

### Trade profile

U.S. trade with Mexico in horticultural products, marked by a deficit, has grown rapidly in recent years. During 1985-89, U.S. imports from Mexico rose by 11 percent annually, to \$1.1 billion, and U.S. exports

there increased by 26 percent annually, to \$153 million. Mexico replaced Brazil as the top foreign supplier of horticultural products, accounting for 20 percent of total U.S. imports of these products in 1989. Mexico also emerged as the seventh largest export market for U.S. horticultural products, aided in part by duty reductions that it implemented in compliance with its application to the GATT.

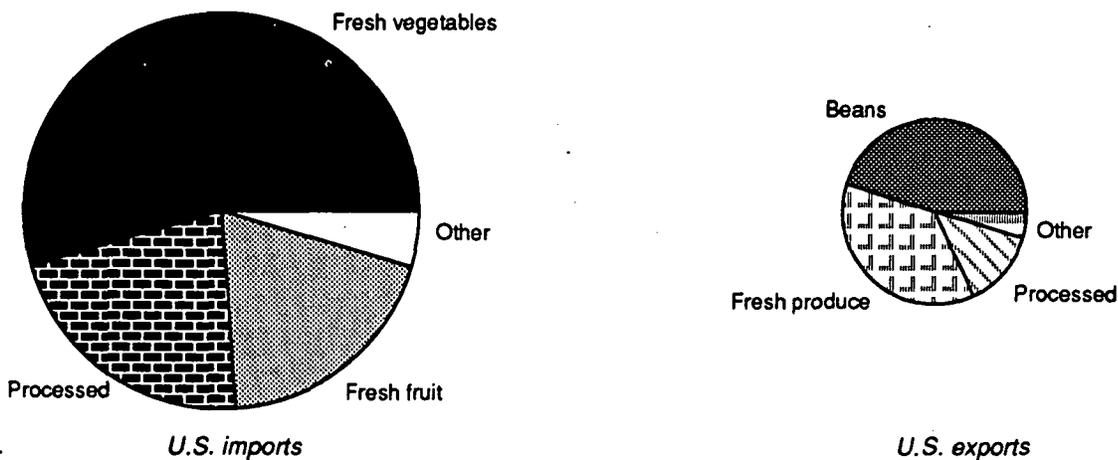
U.S. imports from Mexico (by value) are concentrated in fresh tropical fruits and vegetables, whereas U.S. exports to Mexico consist mostly of processed items and dried leguminous vegetables, as shown in figure 4-2. The majority of the imports from Canada, the fifth largest supplier and the second largest export market after Japan, consists of processed goods and temperate-climate produce. Despite the product-mix differences, the demand for horticultural products is highly price elastic, especially for fresh produce and for bulk processed foods for institutional use. At retail, nonprice factors such as advertising, brand recognition, and product quality can play an important role in consumer purchasing decisions.

U.S. imports of Mexican horticultural products are subject to U.S. tariffs that range from free to 35 percent ad valorem, as well as marketing orders and phytosanitary requirements. Marketing orders are designed to set national guidelines for product quality, market promotion, and supply levels. The most significant items for Mexico affected by marketing orders include toma-

atoes, onions, avocados, grapefruit, oranges, olives, and table grapes. Phytosanitary requirements apply to both domestic and imported products and are intended to protect animals and plants from diseases and pests. Most Mexican horticultural products meet these requirements; however, certain products do not, the most prominent of which are orchard crops, such as citrus fruits and avocados. The U.S. Department of Agriculture (USDA) is reportedly considering a proposal to lift the ban on imports of certain citrus fruits from Mexico, including key limes, which have been effectively banned from the U.S. market since 1983.

Mexico's duties on imports of horticultural products range from free to 20 percent ad valorem. U.S. exports to Mexico are also affected by Mexican import licensing requirements and phytosanitary regulations. The use of import licenses enables the Mexican Government to maintain discretionary control over individual shipments into Mexico and, in effect, acts as a quota. Since joining the GATT, Mexico has dropped import licensing requirements for some products, but stringent controls still remain on apples, grapes, and peaches. Although Mexico's phytosanitary rules are similar to those of the United States, some U.S. agricultural exporters report excessively long border procedures that sometimes lead to product spoilage. In addition, some U.S. industry sources believe that the Mexican Government uses its phytosanitary rules to discriminate against orchard fruits and avocados from the

Figure 4-2  
United States-Mexico horticultural product trade, 1989



Source: Compiled by the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce.

United States in retaliation for U.S. phytosanitary requirements restricting similar produce from Mexico.

## Likely impact of the FTA with Mexico on the United States

### *Impact on U.S. Trade with Mexico*

An FTA likely would result in a significant increase in U.S. imports of horticultural products from Mexico, given that U.S. supply and demand for most of the Mexican products are highly price elastic and U.S. duties are relatively high.<sup>11</sup> This conclusion assumes that U.S. marketing orders would be eliminated under an FTA and that Mexican goods would meet U.S. phytosanitary rules. The expected growth in imports from Mexico would likely be concentrated in traditionally traded goods and high-dutied products such as tomatoes, cucumbers, asparagus, broccoli, cauliflower, lettuce, peppers, onions, squash, avocados, citrus fruits, grapes, melons, guavas, mangoes, and fresh cut roses.<sup>12</sup> The potential also exists for significant growth in U.S. imports of Mexican processed products, the sector attracting considerable U.S. investment in the last decade.<sup>13</sup> Such processed goods would include canned items, such as fruit and vegetable mixtures, tomato pastes and sauces, and asparagus, and frozen items, such as broccoli, cauliflower, strawberries, and orange juice concentrate.<sup>14</sup> An FTA may also accelerate the expansion of Mexico's crop production and food processing sector into products that have not been produced or exported to the United States in large volume, such as frozen spinach and potato chips.

U.S. exports of horticultural products to Mexico are also likely to increase, but only at a moderate rate. Although Mexico's duties are higher than most U.S. duties, and its import licensing requirements and phytosanitary rules are restrictive, Mexican demand for U.S. horticultural products is only moderately price elastic.<sup>15</sup> In addition, Mexico's communication and

transportation infrastructure is not sufficiently developed to handle significant increases in U.S. exports to major markets in the interior. Consequently, any growth in U.S. exports to Mexico would be concentrated in products that are less perishable, particularly temperate-climate products such as potatoes, apples, pears, and peaches,<sup>16</sup> and processed foods such as dried leguminous vegetables and corn. Mexican duties on these items appear to be higher than average (15 to 20 percent ad valorem).

The impact of an FTA on cross-border production and investment is likely to be significant, given Mexico's potential to produce many of the same items as U.S. growers and processors but at lower costs. U.S. investment in the Mexican sector is likely to be concentrated in food processing, considered by many Mexican trade sources as an area of great export potential. Mexico's exports in that sector have recently been growing at an average annual rate of 20 percent versus 5 percent for its exports of fresh products.

### *Impact on U.S. Trade with Canada and Other Countries*

The overall impact of an FTA with Mexico on U.S. trade with Canada would likely be negligible, because there is little overlap in the types of products traded with Canada vis-a-vis Mexico. However, where there is product overlap, such as in canned or frozen mixed vegetables, the less expensive Mexican product could displace U.S. imports from Canada.

An FTA could have a moderate impact on U.S. trade with other regions, particularly Latin America. In processed foods, U.S. importers regard some products from Mexico and other Latin American nations as homogeneous and, thus, often purchase such products principally on the basis of price. Under an FTA that removes U.S. duties on these items, particularly the higher value items that are protected by relatively high tariffs (e.g., canned tomato products, frozen mixed vegetables, and frozen orange-juice concentrate), Mexico would likely increase its share of the U.S. market at the expense of other Latin American countries. U.S. imports from Mexico would also likely displace imports of certain perishable products from Latin America, such as fresh cut roses, grapes, and cantaloupes. Duty-free treatment under an FTA would add to Mexico's existing competitive advantages of closer proximity to the U.S. market and of perceived economic and political stability, which tends to foster a climate of investor confidence.

<sup>11</sup> Written submissions to the Commission from the U.S. Chamber of Commerce, American Farm Bureau Federation, the Florida Farm Bureau Federation, and the Michigan Farm Bureau emphasize the need for an FTA that addresses both countries' tariffs and NTBs.

<sup>12</sup> In a written submission to the Commission of Nov. 26, 1990, the Mexican Association of Flower Exporters and Producers supports duty-free treatment for U.S. imports of fresh cut roses from Mexico under an FTA.

<sup>13</sup> Pepsi Cola International, in a written submission to the Commission of Nov. 29, 1990, supports an FTA because of the expansion of opportunities in trade and investment between the two countries.

<sup>14</sup> Written submissions to the Commission from the Mexican National Citrus Processors Association and the Mexican Association of Prepared Food Processors contend that duty-free treatment in the U.S. market will help create jobs in the Mexican food processing industry.

<sup>15</sup> It is estimated that less than 10 percent of Mexico's population has enough disposable income with which to purchase U.S. products.

<sup>16</sup> The California Cling Peach Advisory Board, in a written submission to the Commission of Nov. 26, 1990, believes that an FTA with Mexico would open the growing Mexican market for fresh peaches to U.S. products.

## *Impact on U.S. Industry, Overall and by Major Regions*

An FTA is likely to result in moderate harm to the U.S. industry in both the short and long term, primarily because of Mexico's competitive advantage in labor costs<sup>17</sup> and the likelihood that additional U.S. investment will be made in the rapidly-growing Mexican industry. Although the greater size and diversity of the U.S. industry will somewhat mitigate this impact, certain U.S. regions will experience moderate losses in production and employment. California,<sup>18</sup> Florida,<sup>19</sup> Texas, and Arizona are likely to experience moderate losses in the winter fruit and vegetable markets.<sup>20</sup> These States produce many of the same labor-intensive crops as Mexico (e.g., citrus fruits), but at higher labor costs and with more susceptibility to frost damage. The large fruit and vegetable processors (particularly freezers), which are primarily in California and the Southwest, are likely to shift investment to Mexico where the same raw product can be harvested and processed at lower costs. The smaller, less efficient processors in the Pacific Northwest, North Central, Northeast, and Southeast are likely to experience moderate losses in production and employment, especially those that process vegetables similar to the ones produced in Mexico. Examples of regional producers that could be harmed by an FTA include producers of frozen and canned asparagus in Washington State, tomato pastes and sauces in the Northeast, and canned sweet-bell peppers<sup>21</sup> in the Southeast.

<sup>17</sup> Written submissions were received from the following organizations, which are either partially or completely opposed to an FTA with Mexico, particularly in their product areas: National Potato Council; American Association of Nurserymen; Floral Trade Council; and Roses, Inc. These organizations represent U.S. producers in more than one region in the United States.

<sup>18</sup> Written submissions were received from the following organizations in California expressing partial or complete opposition to a U.S.-Mexico FTA in the product areas that they represent: National Association of Growers and Processors for Fair Trade; Western Growers Association; California Farm Bureau Federation; California Avocado Commission; and Patterson Frozen Foods, Inc.

<sup>19</sup> Written submissions from the following organizations in Florida have indicated opposition to an FTA for the industries that they represent: Florida Fruit and Vegetable Association; Florida Department of Citrus; Florida Citrus Mutual; Florida Citrus Processors Association; Florida Citrus Packers; Citrus Growers Association; Florida Department of Agriculture and Consumer Services; and Florida Tomato Exchange.

<sup>20</sup> Written submissions in opposition to an FTA with Mexico were also received from the following organizations whose members are located primarily in the South and Southwest: Indian River Citrus League; Gulf Citrus Growers Association; Florida Citrus Packers; and Citrus Growers Association.

<sup>21</sup> In a written submission to the Commission of Nov. 19, 1990, Cherokee Products and others, an association of 10 family-owned firms processing sweet peppers and pimentos, oppose an FTA with Mexico. These U.S. firms are located throughout the Northeast and Southeast.

## *Grains and Oilseeds*

The United States is the major world exporter of grains and oilseeds, which account for about two-thirds of its agricultural exports to Mexico. Both nations maintain import quotas on grains and oilseeds, although the U.S. quotas apply only to peanuts. Tariffs generally average less than 10 percent ad valorem in Mexico and less than 2 percent in the United States. Nearly all U.S. exports to Mexico are subject to Mexican import quotas or licensing requirements. Both countries also maintain extensive government-support programs for farmers that affect trade in these products. An FTA that eliminates these barriers would likely result in a significant increase in U.S. exports of grains and oilseeds to Mexico. U.S. imports of these products from Mexico would only be negligibly affected, because of Mexico's poor endowment of arable land suitable for such crops.

### **Industry profile**

The U.S. grain and oilseed sector encompasses two farming subsectors (oilseeds and grains) and three processing industries (fats and oils, milled grain, and animal feed). In 1989, the 500,000-plus U.S. farms produced an estimated \$42 billion in cash grains (mainly wheat, corn, sorghum, barley, rice, and oats) and oilseeds (mainly soybeans, sunflowerseed, peanuts, and cottonseed). The processors shipped a combined \$56 billion in vegetable oil and meal, milled grain products (e.g., milled corn products), animal feed products, and assorted bakery goods in 1989.<sup>22</sup> Approximately 160,000 persons were employed in the fats and oils and grain-milling industries and an additional 203,000 persons in the baking industry. The three processing industries generally are highly concentrated in ownership and are linked to world markets by a well-developed rail and barge transportation infrastructure and sophisticated grain trading companies.

The competitive position of grain and oilseed farmers is significantly influenced by the costs of production (primarily land, machinery, and chemicals), the natural resource base (arable land and rainfall patterns), and the strength of agri-business support industries (transportation, storage, marketing, and research functions). The farmers in the United States maintain a competitive advantage over those in Mexico in natural resources, marketing, and agri-business support. In the processing industries, U.S. firms tend to be capital and energy-intensive, using modern technology and marketing systems (transportation and storage). U.S. processors tend to be larger and lower cost producers than Mexican processors. In addition, the underdeveloped rail and storage system in Mexico significantly hinders the efficiency of both its farmers and processors.

<sup>22</sup> Excludes the \$25 billion in domestic shipments of bakery products, which are mostly *not* traded internationally.

The overall U.S. grain and oilseed sector is generally believed to be an efficient, low-cost producer. However, both U.S. farmers and processors have been losing their share of the world market in recent years. In addition, the overall sector has excess productive capacity: U.S. farmers have considerable ability to expand their plantings since approximately 15 percent of productive cropland has been withdrawn from use under U.S. Government support programs.<sup>23</sup> U.S. inventories of grain and oilseeds also are ample at the current time.

Mexico's grain and oilseed production, which totaled an estimated \$2.3 billion in 1989/90, is limited because of the country's poor natural resource base in arable farm land. The volume of its production is small relative to United States and Canadian output, as shown in figures 4-3 and 4-4. In addition, the Mexican processors are believed to be small, inefficient, and relatively high-cost producers. The Mexican tortilla (corn meal) subsector has over 100,000 manufacturers in Mexico City alone.

Foreign investment in Mexico's grain and oilseed sector is believed to be limited. There is only one U.S. company with known investment in the Mexican oilseed-processing sector, although U.S. grain trading and feed companies do operate within Mexico.<sup>24</sup> One large and highly competitive European multinational firm operates in the vegetable oil and margarine market.

### Trade profile

The United States is the leading world exporter of grains and oilseeds, and has supplied all but a small part of Mexico's imports of these products in recent years. Canada, a major world grain exporter, has also supplied Mexico with sizable amounts of wheat in recent years, but few of the other grains or oilseeds. Argentina and the EC also export to Mexico, and have expanded their sales there recently.<sup>25</sup> U.S. exports to Mexico are concentrated in grains, based on official statistics of the U.S. Department of Commerce for 1989, as shown in the following tabulation (in millions of dollars):

Type	Exports		Imports	
	Mexico	World	Mexico	World
Grains	926	14,833	1	381
Oilseeds	358	4,362	27	179
Fats and oils	138	1,312	13	658
Milled grain products	11	317	32	544
Animal feed	109	2,839	( <sup>1</sup> )	266
Total	1,542	23,663	72	2,029

<sup>1</sup> Less than \$500,000.

U.S. trade with Canada consists mostly of oilseeds, with soybeans and soybean meal being exported to Canada and canola and canola oil being imported from there.

World trade in grain and oilseed products tends to be based on price competition for similar types of products. These products are traded as bulk commodities with well-developed world prices, shipping routes, and futures markets. Qualitative factors, such as among the different types of vegetable oils, and credit availability influence purchasing decisions. A substantial portion of U.S. exports of these products to Mexico over the past 5 years have received U.S. Government credit guarantees or assistance.<sup>26</sup>

U.S. tariffs on grains and oilseeds average less than 2 percent ad valorem, based on trade in 1989. The principal U.S. NTB is the section 22 quota (under the Agricultural Adjustment Act) on peanuts. In addition, U.S. phytosanitary and food requirements effectively bar imports of certain oilseeds, such as cottonseed, from Mexico. Certain U.S. food regulations, such as aflatoxin restrictions on edible peanuts, may also act as an import bar to certain other products.

Mexico maintains an extensive agricultural price-support program for basic food, oilseed, and feed grains. To enforce this system, since its domestic prices tend to be above world prices, Mexico requires import licenses for many grain and oilseed products. Imports of grain and oilseeds, including those from the United States, are generally done under permit for a specified amount. The Mexican Secretariat of Commerce and Industrial Development (SECOFI) authorizes imports of most basic agricultural commodities only when the entire domestic crop has been purchased.<sup>27</sup> Mexico also levies duties of about 10 per-

<sup>23</sup> Some 60 million of the 402 million acres of U.S. cropland were idled in 1990; USDA, "Crop Area Uncertain in 1991," *Agricultural Outlook*, November 1990, p. 25.

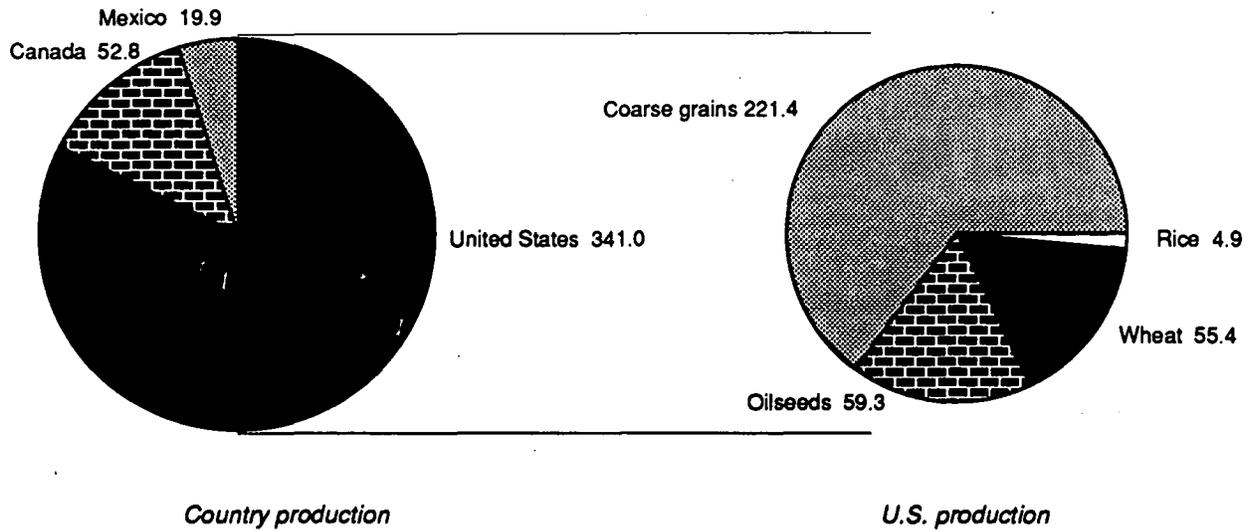
<sup>24</sup> A large U.S. firm that had operated for many years in Mexico's oilseed processing sector sold its Mexican operations in the mid-1980s. U.S. processors with available capacity in the United States have indicated little interest in operating processing plants in Mexico since U.S. products can be easily exported from U.S.-based plants.

<sup>25</sup> The National Oilseed Processors Association (NOPA), written submission to the Commission, Dec. 18, 1990.

<sup>26</sup> NOPA, in its written submission to the Commission, contends that Argentine and EC exporters to Mexico have been able to capture an increasing share of the Mexican market through export subsidies not available to U.S. processors.

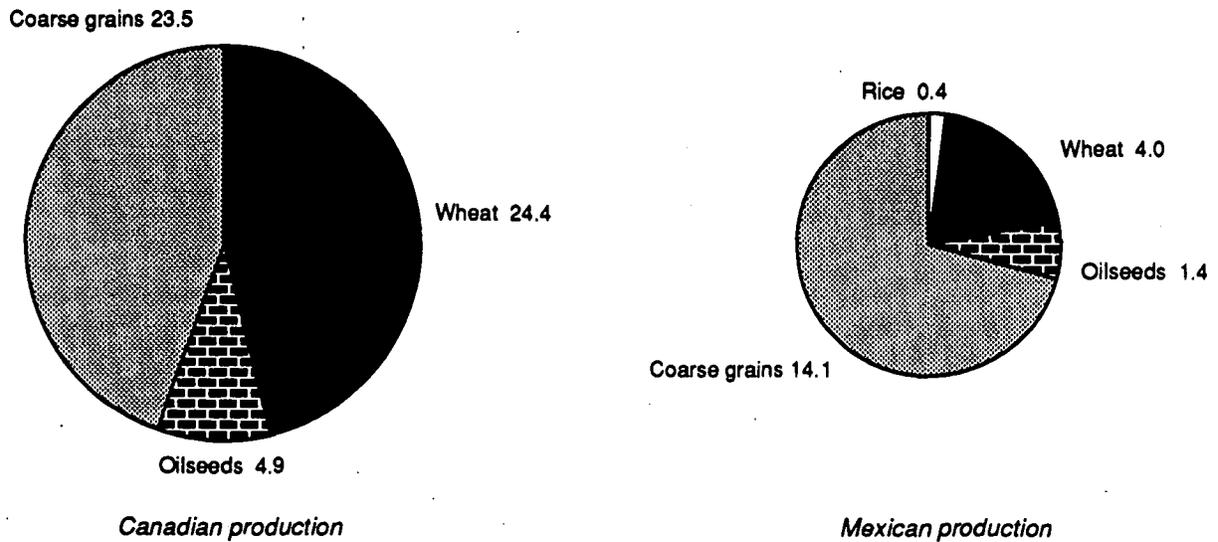
<sup>27</sup> USDA, Foreign Agricultural Service, *Mexico—Annual Agricultural Situation Report*, Mar. 9, 1990, p. 15.

**Figure 4-3**  
**U.S., Canadian, and Mexican grain and oilseed production, in million metric tons, 1989-90 crop year**



Source: Compiled by the U.S. International Trade Commission from official statistics of the U.S. Department of Agriculture.

**Figure 4-4**  
**Canadian and Mexican grain and oilseed production, in million metric tons, 1989-90 crop year**



Source: Compiled by the U.S. International Trade Commission from official statistics of the U.S. Department of Agriculture.

cent ad valorem or less for most of the leading grains and oilseed products.<sup>28</sup>

The tariff equivalent of Mexico's NTBs on grains and oilseeds is difficult to measure. The U.S. Department of Agriculture (USDA) indicated that in 1987 Mexico subsidized its domestic grain and oilseed crops by an average 56 percent in Producer Subsidy Equivalents (PSE).<sup>29</sup> Mexico taxes its consumers of grain, oilseeds, and other crops by a weighted average 35 percent (CSE, consumer subsidy equivalent). Thus, the effect of Mexican NTBs are to raise Mexican consumer prices by an equivalent of a minimum 35 percent. It is assumed therefore that Mexican tariff and nontariff barriers together provide an effective protection of at least 30-35 percent on average.<sup>30</sup>

Within Mexico, the parastatal CONASUPO has played a key role in domestic distribution, marketing, and processing of certain grain and oilseed products, which has had the effect of restraining private investment and trade. CONASUPO has been the primary importer and distributor of basic foodstuffs, including oilseeds, grains, and certain fats and oils. Recently, however, CONASUPO has divested some of its marketing, and milling and oilseed-processing plants to private Mexican-owned firms, and also has given up its role as the exclusive importer of sorghum and soybeans.

### Likely impact of the FTA with Mexico on the United States

#### *Impact on U.S. Trade with Mexico*

An FTA is likely to result in a significant increase in U.S. exports of grain and oilseeds to Mexico in both the short and long term, because the Mexican sector currently is highly protected and higher cost than its U.S. counterpart. U.S. imports of Mexican grain and oilseeds are expected to rise negligibly, because U.S. import restrictions are relatively minor and because Mexico is a deficit producer of grain and oilseeds. The only significant growth area in which imports from Mexico might rise is safflowerseed oil, for which there is a strong market and for which the U.S. duty is about 7 percent ad valorem.

<sup>28</sup> Mexican imports of wheat, corn, grain sorghum, soybeans, soybean oil, sunflowerseed, and sunflowerseed oil are free of duty; imports of soybean meal are dutiable at 10 percent. (Source: *Douanes: Mexico*, 1988-89.) However, industry sources indicate that Mexico also imposes some seasonal tariffs (for example, 5 percent on sorghum) during part of the marketing season.

<sup>29</sup> Alan J. Webb, et al., *Estimates of Producer and Consumer Subsidy Equivalents: Government Intervention in Agriculture, 1982-87*, Washington, DC: USDA, April 1990, pp. 4-5.

<sup>30</sup> According to the USDA, the most subsidized Mexican crops during 1982-87 were corn (a PSE of 66 percent), sorghum (56 percent), soybeans (50 percent), and wheat (26 percent). See USDA report, *Government Intervention in the Mexican Crop Sector*, September 1989, p. 7.

It is unlikely that significant shifts will occur in cross-border production and investment as a result of an FTA, at least in the short run. Currently, there is little direct U.S. investment in Mexico in the grain and oilseed-processing sector and virtually none in farming. The difficulty of meeting government and other regulatory impediments in Mexico has discouraged U.S. investment in the past. In addition, grain and oilseed processing tends to be capital and energy intensive. Mexico offers few advantages in this regard and it lacks a reliable supply of the necessary raw materials—grain and oilseeds.<sup>31</sup>

#### *Impact on U.S. Trade with Canada and Other Countries*

The expected increase in U.S. trade with Mexico under an FTA would likely result in a negligible impact on U.S. trade with Canada, because of significant differences in product mix. The impact on U.S. trade with other countries would also be minimal, because the United States already supplies over 90 percent of Mexico's imports of grain and oilseed products.

#### *Impact on U.S. Industry, Overall and by Major Regions*

Although the expected increase in U.S. exports of grains and oilseeds to Mexico under an FTA would be considerable in absolute terms, it would represent a negligible share of U.S. production. The anticipated export growth would likely benefit nearly all the U.S. grain and oilseed subsectors, although the farmers would benefit the most because of better growing conditions than their Mexican counterparts. Geographically, the principal U.S. beneficiaries would be the Midwest, the Plains States, and Texas, where most of the wheat, corn, sorghum, and soybeans are grown and where most of the oilseed processors and grain mills are located.

#### *Livestock*

Mexico is a major trading partner of the United States in livestock (i.e., cattle, swine, sheep, and lambs) and meat derived from such animals. Mexico supplies all but a small part of U.S. imports of feeder cattle and is the second largest export market for U.S. meats, including variety meats such as liver. U.S. tariffs on imports of feeder cattle, which have accounted for almost all the imports from Mexico in recent years, average about 1.5 percent ad valorem. Mexico also assesses a fee on its exports of cattle, currently 5 percent ad valorem. Mexican tariffs on U.S. meats range from 10 to 20 percent ad valorem.

<sup>31</sup> In the long run, an FTA could spur direct U.S. investment in the Mexican oilseed processing and animal feed industries, which consist almost entirely of small privately owned Mexican firms, by fostering a climate of investor confidence.

An FTA that removes Mexico's relatively high tariffs on meats would likely result in a moderate increase in U.S. exports of meats to Mexico. Similarly, the removal of U.S. duties and Mexican export fees on feeder cattle would likely result in a moderate increase in U.S. imports of such cattle. The expected growth in imports might benefit the U.S. cattle feedlot subsector, but could harm the cow-calf subsector, which produces feeder animals. In addition, U.S. imports of Mexican meats might also increase under an FTA, especially now that U.S. restrictions on such shipments have been lifted for several Mexican meatpacking plants.

### Industry profile

The U.S. livestock sector is much larger than its Mexican counterpart, based on livestock inventories, as of January 1, 1990, as shown in the following tabulation (in thousands of animals):<sup>32</sup>

Type	United States	Mexico
Cattle	99,337	31,747
Swine	53,852	8,563
Sheep	11,360	NA

U.S. and Mexican meat production in 1990 is shown in the following tabulation (in thousands of metric tons):

Type	United States	Mexico
Beef and veal	10,484	1,842
Pork	6,997	792
Lamb, mutton, and goat meat	167	76

The U.S. sector is also more productive. Trade sources indicate that U.S. cattle are generally grain fed, whereas Mexican cattle are usually grass fed.

The Mexican Federal Government imposes price controls on beef in the domestic market. Mexican cattlemen contend that such controls have adversely affected their profitability. In contrast, U.S. Government involvement in the livestock sector is minimal and consists primarily of enforcing health and sanitary regulations. Foreign direct investment in the U.S. and Mexican sectors is believed to be minimal.

### Trade profile

U.S. imports from Mexico in the livestock sector, totaling an estimated \$282 million in 1989, have consisted almost entirely of feeder cattle. Such imports in 1989 amounted to an estimated 856,000 animals, or

about 3 percent of U.S. feed cattle slaughter. The only other supplier of feeder cattle is Canada, imports from which amounted to 61,000 animals. Imports from both countries are thought to be comparable in price and quality to their U.S. counterparts.<sup>33</sup>

U.S. exports to Mexico in the livestock sector consist almost entirely of meat. Such exports totaled \$232 million in 1989, making Mexico the second largest export market with 10 percent of total U.S. meat exports. Meat also dominates U.S. exports to Canada, which amounted to \$159 million, or about 7 percent of total U.S. exports, in 1989. Mexican demand for U.S. meat, estimated to account for less than 2 percent of Mexican meat consumption, is strongly influenced by U.S. Government export promotions, including financial assistance.<sup>34</sup>

Mexican tariffs on meats range from 10 to 20 percent ad valorem. U.S. tariffs average 6 percent for Mexican livestock and meat. Mexico also charges a fee of 5 percent ad valorem on its exports of feeder cattle and the Mexican cattlemen's trade association charges a fee for the use of export facilities in Mexico. U.S. industry representatives report that both fees limit Mexican cattle exports to the United States. U.S. imports of grain-fed beef from Mexico are subject to U.S. quantitative limits under the Meat Import Act of 1979 and to voluntary restraint agreements (VRAs) under the U.S. Agricultural Act of 1956. In 1989 and 1990, however, quotas and VRAs were not in effect because projected import levels for the years remained relatively low. Finally, both United States and Mexican interests contend that each country's health and sanitary regulations have, from time to time, been used to unfairly restrain or prohibit trade through the imposition of regulations that are "scientifically unjustifiable."

Between 1982 and January 1989, Mexico was prohibited from shipping meat into the United States by the U.S. Secretary of Agriculture because of concern over Mexican health and sanitary inspection system standards. These restrictions were lifted in January 1989 based on improvements by the Mexican Federal

<sup>33</sup> The quantity of U.S. imports of feeder cattle is influenced by several factors. Among the most important determinants of demand for feeder animals, both domestic and imported, is the relative price of feeders, fed animals, and feed. High prices for fed animals and low prices for feed tend to increase the demand for feeder animals. The demand for imported feeder animals is also influenced by price and supply of domestic feeder animals. U.S. imports are also influenced by Mexican supply. In some years, Mexico experiences drought in its cattle-growing regions near the United States, and Mexican cattlemen are forced to sell animals because they lack grass to feed them.

<sup>34</sup> U.S. Government credit guarantees to Mexico rose from \$38 million in 1982 to nearly \$1.3 billion in 1989. See General Accounting Office Briefing Report to the Chairman, Committee on Agriculture, House of Representatives, *U.S.-Mexico Trade: Trends and Impediments in Agricultural Trade*, GAO/NSIAD-90-85BR, January 1990, p. 34.

<sup>32</sup> Statistics compiled from USDA report, "World Livestock Situation," FL&P 4-90, October 1990.

Government. By April 1989, the first individual plants<sup>35</sup> in Mexico were approved by the USDA to export meat to the United States and as of November 23, 1990, there were six such Mexican plants; two more reportedly may be approved in 1991.<sup>36</sup>

### **Likely impact of the FTA with Mexico on the United States**

#### *Impact on U.S. Trade with Mexico*

An FTA that removed Mexico's relatively high duties on meats would likely result in a moderate increase in U.S. exports to Mexico in both the short and long term. Similarly, the elimination of U.S. tariffs and Mexican export fees on feeder cattle would likely result in a moderate increase in U.S. imports of Mexican feeder cattle. The expected growth in these imports might benefit the U.S. cattle feedlot subsector, but could harm the cow-calf subsector that produces feeder animals.

An FTA could, in the long term, encourage development of U.S. export-oriented cattle feeding and meatpacking facilities in Mexico, because of lower cost Mexican labor and ready access to U.S. grain supplies and the U.S. market for grain-fed beef.<sup>37</sup> Because of price controls, the Mexican livestock sector may not be able to respond to an FTA as quickly as its U.S. counterpart. In addition, to the extent that the Mexican Government administratively keeps meat prices at levels lower than they would otherwise be, Mexico is unlikely to bid away meat from the U.S. market. However, an FTA could spur U.S. exports to Mexico of meats such as offals that are unpopular, low-priced items in the U.S. market. There appears to be some interest in increasing Mexican capacity in cattle and beef production that, in turn, could contribute to a moderate increase in exports to the United States. However, trade sources indicate that this investment may not depend solely on the approval of an FTA.

#### *Impact on U.S. Trade with Canada and Other Countries*

An FTA with Mexico would likely result in a negligible impact on U.S. trade with Canada and other nations in the livestock sector. In general, Canadian cattle differ genetically from those from Mexico and,

<sup>35</sup> After a country's Federal inspection system has been approved, individual meat plants within the country must be approved by the USDA before meat from such plants may be exported to the United States.

<sup>36</sup> Commission staff estimate that these 2 plants could export no more than 50 million pounds of beef annually to the United States.

<sup>37</sup> This point was also expressed by Kent Van Amburg in an industry presentation during 1990 entitled "The Proposed Free Trade Agreement With Mexico."

consequently, are not as well adapted to the hotter climates of the Southwest United States. An FTA might result in a negligible decrease in U.S. exports of meat to other nations as a result of the expected increase in U.S. exports to Mexico. However, U.S. exports to Canada would likely not be affected, because they generally are higher priced than those exported to Mexico. A large share of U.S. exports to Canada are believed to consist of grain-fed beef, whereas a large share of the U.S. exports to Mexico consist of offals.

#### *Impact on U.S. Industry, Overall and by Major Regions*

An FTA would likely have a negligible impact on the U.S. industry, because the expected increase in U.S. exports of meat to Mexico would represent a negligible share of U.S. production. Similarly, the expected growth in U.S. imports of feeder cattle from Mexico would represent a very small share of U.S. consumption. However, because a large share of U.S. imports of feeder cattle from Mexico are destined for feedlots in the Southwest, the projected growth in these imports could harm the cow-calf subsector in that U.S. region (i.e., Texas, Oklahoma, Arizona, California, and New Mexico).

#### *Fish and Fish Products*

Mexico is the third leading supplier of U.S. imports of edible fish and fish products. Most of the imports from Mexico enter duty free, the major exception being canned tuna. U.S. imports of canned tuna packed in oil are subject to a duty of 35 percent ad valorem and imports of tuna packed in water are subject to a tariff-rate quota of 6 percent on those under quota and 12.5 percent for those over quota. In addition, U.S. trade with Mexico in fisheries products, especially tuna, is affected by disputes over territorial rights and the killing of dolphins during tuna harvest.

Removal of U.S. duties on canned tuna would likely result in a significant increase in U.S. imports of such items from Mexico. The harm such an increase in imports would likely do to the U.S. tuna industry would be significant. However, an FTA that increases U.S. access to Mexico's 200-mile fishery zone would likely result in moderate growth in U.S. production of frozen tuna.

#### **Industry profile**

The U.S. fish and fish products industry can be broadly divided into the harvesting and processing sectors.<sup>38</sup> In 1988, the harvesting sector comprised 93,000

<sup>38</sup> The U.S. industry is highly regional in nature. In general, the Alaska region is mainly concerned with salmon, Pacific groundfish, and crabs; the New England region, Atlantic groundfish, scallops, and lobster; the Gulf region, shrimp; and American Samoa and Puerto Rico, canned tuna.

fishery craft and a workforce of 274,000 persons and the fishery processing and wholesaling sector consisted of almost 4,600 establishments and 90,000 workers. U.S. production of fish and fish products, mostly tuna, salmon, shrimp, groundfish, and crabs, totaled about \$6.4 billion in 1989. About one-third of the industry's output that year was exported. However, the U.S. industry produces mainly for the growing domestic market, in which imports captured 57 percent of apparent U.S. consumption in 1989. The U.S. tuna industry, the segment most likely to be affected by an FTA, comprises five canneries—three in Puerto Rico and one each in California and American Samoa. The California cannery is reportedly the least competitive of the canneries, because of high labor costs.

Mexico's fish and fish products industry is now being privatized, having mostly been owned by the Mexican Government. The industry is not as large or as diverse as the U.S. industry. Mexican output, concentrated in shrimp and tuna, totaled 1.5 million metric tons in 1989. About two-thirds of that output was exported. Mexico also processes and reexports a large portion of the fisheries products that it imports.

The United States and Mexico each have competitive strengths. The United States enjoys more substantial stocks of salmon, groundfish, shrimp, and crabs, as well as many other species. For tuna, which are fished in distant waters, the United States has more experience and better technology. Mexico has substantial resources of quality shrimp (which command premium prices in the U.S. market) and tuna, and has substantially lower production costs, especially for fuel and labor.

### Trade profile

U.S. trade in fish and fish products in 1989 was marked by a deficit of \$3.2 billion, based on U.S. imports of \$5.5 billion and U.S. exports of \$2.3 billion. The principal foreign supplier was Canada, with 22 percent of the imports in 1989. Mexico, the third leading source, supplied 7 percent.

Mexico accounted for only 1 percent of U.S. exports of fish and fish products in 1989.<sup>39</sup> Canada, with about 9 percent of U.S. exports that year, trailed only Japan, which accounted for about 70 percent of the exports. In terms of Mexico's exports of fisheries products, its primary markets are believed to be the United States, Japan, and Italy. Fisheries trade between Mexico and Canada is relatively minor.

U.S. trade with Mexico in canned tuna is affected not only by U.S. duties,<sup>40</sup> but also by disputes over

<sup>39</sup> U.S. exports generally consist of relatively high-value products, such as salmon and crab, which receive premium prices in Japan and Europe or are specialty items not in great demand in the U.S. market.

<sup>40</sup> U.S. imports of frozen tuna, the main input in the manufacture of canned tuna, enter duty free.

territorial rights and the killing of dolphins during tuna harvest.<sup>41</sup> Mexico claims jurisdiction over a 200-mile limit for its tuna rich coastal waters, whereas the United States recognizes only a 12-mile claim for tuna. The United States maintains legislation (Fisheries Conservation and Management Act of 1976) that permits it to embargo imports of fisheries items from nations that seize U.S. fishing vessels in disputed waters. The United States, under the Marine Mammal Protection Act, can also embargo imports of fisheries products if dolphin mortality in connection with foreign tuna fishing exceeds U.S. mortality levels.

Foreign investment in the Mexican fish and fish products industry is believed to be minimal, largely because most of the industry had been nationalized up until recently. Privatization, in conjunction with an FTA, could spur some U.S. investment in loining facilities, a labor-intensive operation in which the whole fish is cut into segments, with the processed meat shipped to U.S. facilities for final canning. These operations could enable U.S. canneries to become more cost-competitive with their principal foreign rivals in Southeast Asia.

### Likely impact of the FTA with Mexico on the United States

#### *Impact on U.S. Trade with Mexico*

The overall impact of an FTA on U.S. imports of Mexican fisheries products would likely be negligible, because most of the trade enters duty free. However, the removal of the relatively high U.S. duties on canned tuna would likely result in a significant increase in U.S. imports of such products from Mexico in the long term. The short-term impact would likely be negligible, because of the problems associated with Mexican tuna processors' product quality and brand recognition. Mexican penetration of the U.S. canned tuna market would, in the short run, probably be limited to packing under contract for supermarkets for their own private labels. In the long run, Mexican exporters could gain a larger market share as consumer acceptance grows and quality problems are solved. On the other hand, an FTA that allowed increased U.S. access to Mexico's 200-mile fishery zone, where large tuna resources are present, would serve to increase U.S. production of frozen tuna, and reduce U.S. imports of frozen tuna by a moderate amount. An FTA would have virtually no effect on U.S. exports.

#### *Impact on U.S. Trade with Canada and Other Countries*

An FTA with Mexico would likely have a negligible impact on U.S. trade with Canada in fish and fish

<sup>41</sup> The development of Mexico's trade in canned tuna has also been hindered by the relatively low quality of its processed product and a lack of brand-name recognition in the U.S. market.

products, because Mexico and Canada supply different and generally non-substitutable fisheries products to the U.S. market. However, an FTA with Mexico could displace U.S. imports of frozen tuna from other Latin American countries and canned tuna from countries along the western Pacific rim.

#### *Impact on U.S. Industry, Overall and by Major Regions*

The expected increase in U.S. imports from Mexico under an FTA would likely result in a negligible impact on the overall U.S. fisheries industry. However, the expected increase in imports of tuna from Mexico would likely cause significant harm to the U.S. tuna harvesting and processing industry. The likely impact would vary by region. The harvesting sector of the U.S. tuna industry is split between the eastern and western sides of the Pacific Ocean. Only the eastern Pacific fishery would be significantly affected by an FTA, particularly if an FTA leads to increased U.S. access to Mexican tuna-fishing grounds. U.S. production of frozen tuna in this tuna-rich region, which accounts for about 30 percent of total U.S. tuna output, could increase significantly.

The canning sector of the U.S. tuna industry, split regionally into Puerto Rico, California, and American Samoa, would also be affected by an FTA with Mexico. The removal of U.S. duties on Mexican canned tuna would likely cause significant harm to the one California cannery which, because of its high labor costs, is the least competitive of the five U.S. tuna canneries. The canneries in Puerto Rico would also face increased competition in the U.S. market for canned tuna from Mexico. Both the Puerto Rican and Californian canneries would benefit from an FTA that permitted U.S. access to Mexico's fishery zone, because most of the tuna harvested by U.S. fishermen in the eastern Pacific region is shipped to Puerto Rico and California for processing.

#### *Alcoholic Beverages*

An FTA would likely spur U.S. exports of alcoholic beverages to Mexico, which have grown rapidly since 1985, in response to Mexico's reduction or removal of many of its duties and NTBs. This trend is expected to continue under an FTA, as Mexican duties are eliminated and distribution arrangements improve. An FTA is expected to have a negligible effect on U.S. imports from Mexico, primarily because U.S. duties on alcoholic beverages are low. Consequently, the impact of an FTA with Mexico on U.S. trade with Canada and other third countries is expected to be negligible.

#### *Industry profile*

The U.S. alcoholic beverage industry comprises a few large, primarily multinational firms and many

small firms that produce specialty products or sell to local markets. Beer accounted for 68 percent of the \$21.5 billion in U.S. shipments in 1989, and distilled spirits and wine each accounted for 16 percent. The U.S. industry generally enjoys efficiencies in production, bottling, marketing, and distribution, thereby offsetting Mexico's advantage of lower labor costs. The Mexican industry also is dominated by large firms, particularly in the malt beverage and brandy segments. Mexican alcoholic beverage sales in 1989 totaled an estimated \$2.5 billion, about two-thirds of which consisted of beer. Subsidiaries of multinational firms and local licensees that import and distribute alcoholic beverages play an important role in both the U.S. and Mexican markets. Many of the multinational firms are diversified, with operations in food, tobacco, retail, and other sectors.

The alcoholic beverage market is highly regulated in both the United States and Mexico. Government regulations cover recognition of designated regions of origin, standards of identity, labeling, and certain aspects of the distribution system. Excise taxes also affect the market, since tax increases are usually passed on to consumers.

#### *Trade profile*

U.S. trade in alcoholic beverages, overall and with Mexico, was marked by a deficit of \$2.8 billion and \$184 million, respectively, in 1989. U.S. imports from Mexico that year totaled \$204 million, or 6 percent of the \$3.2 billion in total U.S. imports of alcoholic beverages, making it the sixth largest supplier. Canada, the third largest supplier after France and the United Kingdom, provided 15 percent of the imports. Most of the imports from Mexico and Canada consisted of beer. By contrast, imports from other nations, especially those in Europe, consisted mostly of wine. About 20 percent of the imports from Mexico consisted of tequila, which is produced only in Mexico and most of which enters duty free under the GSP. The rest of the imports from Mexico were dutiable at a trade-weighted average rate of 3 percent ad valorem. By contrast, Mexican duties on alcoholic beverages average 20 percent.

U.S. exports of alcoholic beverages to Mexico have increased rapidly since 1985, rising from about \$1 million to about \$20 million, or almost 70 percent of total Mexican imports of alcoholic beverages. U.S. exports to Mexico were concentrated in distilled spirits (59 percent of the exports), and also included beer (34 percent) and wine (7 percent). Mexican imports of alcoholic beverages from Canada totaled less than \$0.5 million in 1989.

Trade sources indicate that the Mexican beer oligopoly controls many aspects of distribution and, until recently, prevented all imports of malt beverages. While the cartel arrangement no longer constitutes a prohibition on Mexican imports, exclusive sales and

distribution contracts between Mexican brewers and retailers limit the number of retail outlets that carry foreign beer.<sup>42</sup> In wine and spirits, industry sources have expressed concern about Mexico's lengthy and burdensome regulatory procedures, such as product registration and testing requirements, that may affect U.S. exports to Mexico.

## Likely impact of the FTA with Mexico on the United States

### *Impact on U.S. Trade with Mexico*

U.S. exports of alcoholic beverages to Mexico are expected to increase significantly in the short and long term under an FTA that removes Mexican tariffs, averaging 20 percent ad valorem. U.S. exports have risen rapidly in the years since Mexico eliminated its import-licensing requirements and reduced its duties. However, the availability of disposable income in Mexico affects Mexican demand for U.S. alcoholic beverages, particularly the higher valued goods.

An FTA is expected to have a negligible effect on U.S. imports of alcoholic beverages from Mexico, primarily because U.S. duties on alcoholic beverages are low. Any increase in imports from Mexico is more likely to result from marketing strategies and consumer preferences than duty-free treatment. Capacity constraints in Mexico are also expected to limit any increase in imports from Mexico, at least in the short term.

Shifts in alcoholic beverage production and investments under an FTA, if any, are likely to be limited to the brewing sector. Brewers often license production of their brands in foreign markets to save on transportation costs and, when necessary, to avoid trade barriers. Similar license arrangements may occur in Mexico, particularly in the long term, as consumer acceptance of U.S. brands expands. In the short term, most ventures between the U.S. and Mexican industries are likely to be marketing and distribution agreements like those presently in use.

### *Impact on U.S. Trade with Canada and Other Countries*

The expected increase in U.S. imports of Mexican alcoholic beverages under an FTA would likely result in a negligible impact on overall U.S. imports from Canada or other countries. The malt beverage sector

<sup>42</sup> In 1988, a major Mexican brewer concluded a distribution arrangement with a leading U.S. brewer to introduce the U.S. brand in retail outlets tied to the Mexican brewer. Other U.S. firms are limited to marketing arrangements with Mexican firms that import a variety of alcoholic beverages. Industry sources note that U.S. firms without ties to the Mexican brewers' distribution network lack access to the number of retail outlets needed for the high sales volume best suited for profitability in the beer industry.

could be an exception. In the past 2 years, the value of U.S. beer imports has declined from its 1988 peak. Imports of beer from other countries may face some additional competition from Mexican beer. However, because U.S. duties on Mexican beer are small, averaging 2 percent ad valorem, an FTA is not expected to significantly affect current market shares overall. The effects are likely to be concentrated in U.S. markets close to the Mexican border. Owing to transportation costs, beer imported from Canada would retain a cost advantage in northern U.S. markets, while Mexican beer could increase its market share somewhat in regions closer to the United States-Mexican border.

### *Impact on U.S. Industry, Overall and by Major Regions*

The expected increase in U.S. exports of alcoholic beverages to Mexico would likely have a negligible effect on the U.S. industry, because it would represent a very small share of domestic production of alcoholic beverages. However, projected export growth could help forestall effects of stagnant domestic sales and the anticipated decline in future U.S. consumption of alcoholic beverages.

## Automotive Products<sup>43</sup>

Mexico is a small, rapidly growing supplier of autos to the United States and the third-largest trading partner in auto parts. The auto industry in Mexico is entirely foreign owned, with the eight plants there owned by the Big Three U.S. automakers, Nissan, and Volkswagen. The industry exported one-third of its 1989 output of 641,000 autos, primarily from the Big Three plants to the United States and Canada. The auto parts industry in Mexico comprises several hundred firms, with U.S.-owned auto parts firms playing a major role in the industry. The production of auto parts, along with electronic goods, generates more value-added in Mexico's maquiladora sector than any other industry.

U.S. trade with Mexico in automotive products has been accelerating in recent years. U.S. auto imports from Mexico rose at an average annual rate of 34 percent during 1985-89, to 142,831 vehicles, valued at \$1.3 billion, or about 3 percent of total U.S. auto imports. In contrast, U.S. exports to Mexico remain negligible, totaling just 2,002 vehicles, valued at \$15 million, in 1989. In auto parts, U.S. imports rose by 14 percent annually, to \$3.6 billion, and exports advanced by 16 percent annually, to \$3.4 billion.

The most important factors affecting U.S. automotive products trade with Mexico are Mexican foreign investment restrictions, performance requirements,

<sup>43</sup> Includes autos (passenger cars and light trucks) and all finished components used in the assembly of, or as replacement parts in, autos.

local content rules, and import restrictions.<sup>44</sup> First, Mexico requires its auto industry to maintain a trade surplus. For each dollar's worth of autos that automakers import into Mexico in 1991, they must earn \$2.50 in auto exports. The export requirement drops to \$2 in the 1992 and 1993 model years and to \$1.75 in the 1994 model year. Second, Mexico currently limits auto imports to 15 percent of total Mexican auto sales; the limit rises to 20 percent in 1993. In addition, imports of autos with engines under 1.8 liters are banned until the 1993 model year.<sup>45</sup> Third, Mexico limits foreign investment in the auto parts industry to 40-percent equity participation.<sup>46</sup> However, full foreign ownership is allowed on a temporary basis under so-called Temporary Investment Trust Funds<sup>47</sup> and in the maquiladora sector provided that at least 80 percent of the output is exported. Finally, Mexico requires at least 36-percent Mexican content in autos and auto parts produced there.<sup>48</sup>

These Mexican barriers, compounded by other economic and political factors, have influenced the evolution of the auto and auto parts industries in Mexico and, at the same time, limited their integration into the greater North American automotive products sector. Some Mexican auto plants operate at relatively low efficiency,<sup>49</sup> with output averaging less than half the standard rate of modern plants around the world.<sup>50</sup> These Mexican plants produce a relatively diverse number of models—at low volume levels—for the small and diverse market in Mexico. Instead of the one or two models that modern auto plants often make, these Mexican plants produce as many as four or five distinct types. Auto prices in Mexico are higher than they would be without the attendant trade and investment restrictions.<sup>51</sup>

<sup>44</sup> For a detailed discussion of the history of these measures, some of which were partially liberalized under the 1989 Decree for the Development and Modernization of the Automotive Industry, see USITC, *The Internationalization of the Automobile Industry and Its Effects on the U.S. Automobile Industry*, USITC Publication 1712, June 1985, pp. 77–80. For a summary of the 1989 decree, see Marc N. Scheinman, "Review of Mexico's Automotive Industry and Market," *EIV International Motor Business*, July 1990, pp. 49–50.

<sup>45</sup> Reportedly, Mexico's import ban on autos with these small engines is intended to protect Nissan and Volkswagen, which plan to invest in plants to produce cars for the Mexican and export markets. See Scheinman, "Mexico's Automotive Industry, Economic Development and Foreign Investment: 1962–1990," *Foreign Investment*, Banamex, p. 153.

<sup>46</sup> *Mexican Automotive Suppliers Directory, 1990 Edition*, Mexican Automotive Business, pp. viii–ix.

<sup>47</sup> "Comite para la Promocion de la Inversion en Mexico," *Mexico and the Foreign Investor*, n.d.

<sup>48</sup> This rule applies on a company, rather than product, basis.

<sup>49</sup> Information provided by automakers; also see James P. Womack, "Seeking Mutual Gain: North America Responds to Mexican Liberation of the Motor Vehicle Industry," paper prepared for 44th Annual Plenary Meeting, Mexico-U.S. Business Committee, Orlando, FL, Nov. 9, 1989, pp. 28–30.

<sup>50</sup> Modern production plants typically produce about 240,000 autos a year. See Womack.

<sup>51</sup> Mike Zellner, "Letting the Cars Through," *Mexico Journal*, Dec. 25, 1989.

In a fully integrated and rationalized North American automotive products sector, it is expected that the auto industry would tend to produce fewer models and smaller, less expensive ones in Mexico. However, it is difficult to determine how much U.S. producers would be able to reduce their production costs by relocating production to Mexico. Although labor costs are lower in Mexico, transportation costs would be higher. The less-developed state of the infrastructure would also tend to increase costs. Moreover, there is obviously a higher overall risk premium associated with investments in Mexico than in the United States and Canada.

It is difficult to assess the overall impact of an FTA on the automotive products sector, because many variables, both economic and political, bear on the marketplace for autos. The most important variable, the competitive strategies of the Big Three U.S. automakers, is unknown. However, the potential exists for the Mexican auto industry, with its relatively low wage rates and abundant labor supply, to become an integral part of the North American automotive sector.<sup>52</sup> In addition, U.S. auto industry sources and many industry analysts view Mexico as a long-term, high-growth market for autos. In a fully liberalized and integrated North American market, demand in Mexico could be met efficiently from a broader base of production facilities in Mexico, the United States, and Canada. In turn, the plants in Mexico might specialize along model lines to achieve operating efficiencies. If production is rationalized within an integrated North American market, patterns of trade could be influenced by shifts in consumer preferences.

Removal of U.S. tariffs on automotive products under an FTA is not expected to have as much impact on U.S. imports from Mexico as removal of Mexican NTBs, even in today's highly competitive environment.<sup>53</sup> The U.S. duty on passenger cars is 2.5 percent ad valorem. Elimination of the U.S. duty on light

<sup>52</sup> USITC staff interviews with U.S. industry representatives, November 1990. Also see Womack, Nov. 9, 1989.

<sup>53</sup> Some industry analysts suggest that the U.S. corporate average fuel economy (CAFE) regulations have created a barrier to investment in Mexico. U.S. automakers might be reluctant to import smaller or more fuel-efficient autos from Mexico if doing so would lower their domestic fleet CAFE to an unacceptably low level. Representatives of several auto producers in Mexico state that this possibility exists, but that it oversimplifies the effect on investment decisions. Although some support exists within U.S. auto firms to eliminate the distinctions between Mexican and domestic fleets for CAFE purposes, there is no apparent industry-wide preference to do so.

It appears that the separate foreign fleet CAFE distinction has led to unexpected investment decisions. Ford abandoned plans for a network of parts suppliers around its Hermosillo (Mexico) plant because, for the Escort autos produced there to be considered "domestic" for CAFE purposes, Mexican content cannot exceed 25 percent of the value of the auto. See Womack, p. 40. In addition, Ford will source 27 percent of the value of its Canadian-built Grand Marquis and Crown Victoria from Mexico, so that the cars will be considered imports for CAFE purposes. See "Ford Eyes More of Smaller Big-car Niche," *Ward's Automotive Reports*, Dec. 3, 1990, p. 386.

trucks of 25 percent ad valorem may have a more significant impact; however, the effective rate is much lower because U.S. components in these vehicles are exempt from duty.<sup>54</sup> For auto parts, roughly half the U.S. imports from Mexico enter at preferential rates under the maquiladora program or the GSP and the remainder are dutiable at a trade-weighted average rate of 3.1 percent ad valorem. In contrast, Mexico levies tariffs of 15 percent ad valorem on autos and 13.2 percent on auto parts. Removal of these duties would make it more attractive for Mexican consumers to buy U.S.-made models, particularly if Mexico's quantitative import limits were lifted as well. However, the relatively limited absorptive capacity of the Mexican market would tend to limit the volume of U.S. exports.

Questions arise as to whether third-country producers would be accorded the benefits of liberalization of tariffs and Mexican trade and investment restrictions. This is particularly relevant for Volkswagen and Nissan, which currently assemble autos in Mexico, and also for other foreign auto producers with plants in the United States, such as Honda and Toyota. Some of the questions are likely to be subject to negotiation, such as the application of rules of origin to determine whether autos traded between the two nations are eligible for preferential duty treatment under an FTA and the application of Mexico's investment restrictions and performance requirements to third-country producers with U.S. plants. On the other hand, the application of Mexico's investment restrictions and performance requirements to Volkswagen and Nissan is an internal Mexican issue.

Mexico's investment restrictions and performance requirements clearly add to the cost of production in Mexico. If the benefits of their liberalization are not extended to Volkswagen, Nissan, or other foreign producers, the added costs for them would reduce their competitive position vis-a-vis the Big Three U.S. automakers in both the U.S. and Mexican markets. Under these circumstances, it would be unlikely that third-country producers would assemble cars in Mexico for export to the U.S. market. In addition, Nissan and Volkswagen would be put at a competitive disadvantage in the Mexican market. On the other hand, if third-country auto producers are accorded the benefits of liberalization, then the issue is whether these firms would build plants in Mexico to serve the whole North American market. Japanese firms have recently built state-of-the-art assembly plants and associated parts plants in the United States and are unlikely to shift pro-

<sup>54</sup> One auto producer in Mexico contends that the duty on light trucks is substantial and may impede the development of the truck industry in Mexico.

duction from these plants to Mexico.<sup>55</sup> Japanese producers could decide to shift some production from Japan to Mexico. Since Japanese firms are likely to come under political pressure in Mexico to produce in the country if they are to sell more autos there, and since the production capacity of efficient plants is likely to exceed the capacity of the Mexican market, Japanese firms could well have an economic incentive to export autos from Mexico to the United States.

### Industry profile

The auto industry in Mexico is rapidly expanding production as new investments take hold and as production recovers from the recession of the early 1980s.<sup>56</sup> The industry's output rose by 88 percent during 1986-89, to 641,000 units in 1989.<sup>57</sup> It reached similar heights in 1981, only to drop in half during the recession of the following 2 years when demand in both Mexico and the United States declined. The ongoing expansion in Mexico's auto output is being accompanied by a surge in exports, primarily to the United States.<sup>58</sup> U.S. imports of autos from Mexico more than doubled during 1986-89, to 142,831 units, and they are likely to be up another 50 percent or so in 1990. Given the low U.S. tariff on imports of passenger cars, it is uncertain whether an FTA will significantly accelerate this trend.<sup>59</sup>

As discussed earlier, model proliferation hampers efficient operation of Mexican plants. Chrysler's Toluca plant and Ford's Cuautitlan plant each produce five distinct models and Volkswagen's Puebla plant makes

<sup>55</sup> Although it is difficult to determine which factors significantly affect the plant-location process in any given instance, a recent study of 20 foreign firms found that, among other factors, "nearness to market" was considered "very" or "moderately important" by the greatest number of firms. Only five firms thought that wage rates, the most obvious draw to invest in Mexico, were either "very" or "moderately important." See Robert W. Haigh, "Selecting a US Plant Location: The Management Decision Process in Foreign Companies," *The Columbia Journal of World Business*, Fall 1990, pp. 22-31.

<sup>56</sup> A recent report indicates that the current U.S. recession is beginning to have an effect on the Mexican auto industry. See "Feeling the Chill," *Wall Street Journal*, Jan. 14, 1991, p. A1.

<sup>57</sup> *Ward's Automotive Yearbook: 1990*, p. 304; and *Ward's Automotive Yearbook: 1988*, p. 111.

<sup>58</sup> USITC staff estimates use official statistics of the U.S. Department of Commerce; *Ward's Automotive Yearbook*, various issues; Banco Nacional de Mexico, February 1990.

<sup>59</sup> The extent to which such growth in Mexican production will continue is unclear, given that broader economic developments in the past have altered production trends and short-term plans of automakers. During the recession in the early 1980s, for example, Mexican vehicle production declined by half to about 280,000 vehicles. While the structure of the Mexican economy has changed since the early 1980s, and may now respond somewhat differently to another recession, U.S. sources believe that the Mexican auto industry would still be affected by another economic downturn. Mexico's labor force generally receives high praise from industry representatives, although experiences vary significantly among firms. One firm even stated that Mexico's labor laws regarding seniority guidelines, protection against dismissal, and compulsory union membership are a barrier to productivity increases and the development of a modern auto production system.

four.<sup>60</sup> Model proliferation at GM and Nissan's plants in Mexico is less extensive, although output is nevertheless generally low. Several exceptions do exist,<sup>61</sup> notably Ford's Hermosillo plant. This facility, which produces the Escort and Tracer entirely for the export (mainly U.S.) market, is renowned for its efficiency and product quality.

The auto parts industry in Mexico is also expanding rapidly. Its output grew at an average annual rate of 19 percent during 1986-89, to an estimated \$7.0 billion in 1989. The United States supplied about 73 percent of the foreign direct investment in the Mexican auto parts industry in 1989. Other foreign investment came from the United Kingdom (8.7 percent), Germany (6.4 percent), and Japan (3.5 percent).<sup>62</sup> Most of the U.S. investment occurred in maquiladora plants. The cost advantage of producing in Mexico, particularly as a result of low labor costs, could be an important competitive factor in this industry that is experiencing both declining prices and increasing productivity gains. In general, the Mexican-owned producers lag considerably behind their U.S. counterparts in terms of technology<sup>63</sup> and economies of scale.

### *Trade profile*

The U.S. auto trade deficit with Mexico widened considerably during 1986-89, reaching nearly \$1.3 billion in 1989. Only a select number of auto models are exported from Mexico to the United States and Canada. These exports are comparable in quality to similar autos made in the United States and consist mainly of subcompact and intermediate cars and also full-size pick-up trucks made by the Big Three U.S. automakers.<sup>64</sup> It is probable that the Big Three U.S. automakers would, under an FTA, use their Mexican assembly plants to make primarily the inexpensive, low-profit models,<sup>65</sup> although Mexico appears to be able to produce other types of models.

Auto sales in Mexico have grown rapidly in recent years, rising by 82 percent during 1987-89 to 445,000 autos in 1989. The Mexican market is supplied almost entirely by local production. Volkswagen supplied about 28 percent of the market in 1989 and Nissan pro-

vided an additional 25 percent. Chrysler, Ford, and General Motors supplied approximately 21, 17, and 8 percent, respectively.<sup>66</sup> Given an expanding economy, the 88 million people in Mexico represent a potentially lucrative market for the Big Three U.S. automakers if an FTA removes Mexico's trade and investment restrictions in the auto sector and if the Mexican auto market continues to experience rapid growth.

### *Likely impact of the FTA with Mexico on the United States*

An accurate evaluation of the likely impact of an FTA on the U.S. automotive products sector and on U.S. trade with Canada and other countries is difficult for several reasons. Critical information is often limited. In particular, the Big Three U.S. automakers have not disclosed their competitive strategies in the event of an FTA, an important factor given the structural inefficiencies in their Mexican operations. In addition, the highly integrated nature of the United States and Canadian automotive products industries makes it difficult to assess the likely impact of an FTA on U.S. trade with Canada. Nevertheless, investment decisions in these industries will be made in the broad context of the global competitive environment, as well as the eventual format of an FTA.

Several observations can be made, however. Perhaps most central to the analysis of the likely impact of an FTA is the effect an FTA will have on production in Mexico. Auto production in Mexico has developed within a highly regulated environment and, as discussed, this is reflected in the structure of the Mexican industry. The industrial environment in Mexico that is likely to evolve under an FTA might prompt a restructuring and an upgrading of the production technology of less efficient Mexican auto plants. If the Big Three U.S. automakers restructure their Mexican operations for greater efficiency and for integration into their North American production system, this may increase their competitive position relative to Japanese firms. In a completely open Mexican market served by both Mexican and U.S. plants, Mexico's auto plants could increase model specialization and overall output.<sup>67</sup> Mexican production currently exceeds and is outpacing increases in Mexican sales. If the small but expanding Mexican market were unable to absorb the full production increase, exports to the United States are likely to occur. The impact of an FTA on U.S. trade with Mexico in the automotive products sector would most affect the U.S. Midwest, given the concentration of the sector in that region.

Other factors affecting production in Mexico include infrastructure and labor, both of which affect the cost of production. Some U.S. industry sources and

<sup>60</sup> "Mexico '91 Model Car and Truck Final Assembly Plants," *Ward's Automotive Reports*, p. 2.

<sup>61</sup> Womack (Nov. 9, 1989, p. 29) lists five Mexican assembly plants, one from each company producing in Mexico, as producing less than half the standard level of output generally found among plants in industrialized countries.

<sup>62</sup> *CMP (Country Market Profile) Industry Sector Analysis*, Eduardo Sandoval, Mexico City, March 1990, p. 3.

<sup>63</sup> Womack, "North American Integration in the Motor Vehicle Sector," June 13, 1990, p. 23.

<sup>64</sup> *Ward's Automotive Reports*, Oct. 1, 1990.

<sup>65</sup> Data from Womack, Nov. 9, 1989. Besides taking advantage of Mexico's lower production costs, such autos would be most suitable for the less affluent Mexican market. United States and Canadian assembly plants would likely ship more expensive models to Mexico, where pent-up demand reportedly exists for such vehicles among the country's affluent.

<sup>66</sup> *Ward's Automotive Yearbook: 1990*, p. 304.

<sup>67</sup> Interview with U.S. industry official, November 1990.

analysts contend that problems with transportation, utilities, and housing hamper auto production in Mexico. Others claim that conditions are improving and should not significantly limit future growth in Mexican output. Nevertheless, the costs associated with an underdeveloped transportation and social infrastructure appear to be more than offset by labor cost savings. One estimate places labor costs in Mexico at 60 to 75 percent less than those in the United States or Canada. Any significant improvement in productivity, however, would make labor a smaller factor input and a less compelling element of the investment location decision. In fact, one automaker in Mexico contends that the decline in labor costs as a percentage of total production costs makes Mexico's lower wage rates less relevant.

Related to the supply conditions in Mexico is the market for automotive products there. Although the Mexican market is growing rapidly, economic conditions in Mexico will most likely bear strongly on its future course, as demonstrated by the wide fluctuations in Mexican auto sales during the 1980s. Predictions of future growth are complicated by the current economic slowdown in North America that has plunged the U.S. auto industry into its worst sales decline since the 1982 recession. Mexico's close economic and trade ties to the United States suggest that the economic contraction will most likely affect the level of Mexican economic activity and, in turn, auto sales, but to an unknown extent.

Clearly U.S. market conditions will affect the impact of an FTA. If automakers continue to produce mainly smaller and less expensive cars (subcompacts, compacts, and intermediates) in Mexico, a U.S. market shift toward those types of cars would increase demand for the Mexican product. However, considerable uncertainty exists about market trends as a result of the Persian Gulf crisis, the U.S. economic slowdown, and sagging U.S. consumer confidence, making future market shifts particularly difficult to assess at this time.

U.S. trade with Mexico in automotive products is expanding rapidly. It is uncertain as to how an FTA would affect this trend. U.S. imports from Mexico are increasing rapidly and U.S. investment in Mexico's auto industry is at relatively high levels. With the limited opening of the Mexican market to auto imports by Mexico's foreign-owned producers, imports are increasing significantly too, although from an insignificant base and under a severe limitation (currently 15 percent of Mexican sales).

Finally, the impact of an FTA will also be affected by investment plans of non-U.S. firms, especially Japanese firms, not currently producing automotive products in Mexico. Although these firms have not announced plans to assemble autos in Mexico in the event

of an FTA,<sup>68</sup> their incentive to do so would largely hinge on whether or not they would be excluded from the benefits of an FTA, such as the removal of Mexican investment restrictions and performance requirements. It is possible that such firms might invest in Mexico for long-term strategic reasons, but its likelihood will be greatly influenced by how this issue is treated in an FTA.<sup>69</sup>

An FTA with Mexico that results in free trade in the automotive products sector will have to remove United States and Mexican tariffs, eliminate Mexican export performance requirements and local content rules, and liberalize Mexican foreign investment restrictions.<sup>70</sup> It is easier to predict the likely impact of tariff removal than it is to assess the impact of eliminating the other Mexican NTBs. Removal of U.S. tariffs on passenger cars does not represent a major change since the tariff is already fairly low. This also is true for U.S. duties on imports of auto parts, roughly half of which enter at preferential rates. The U.S. tariff on light trucks of 25 percent ad valorem is obviously more significant. In practice, however, the application of the tariff is limited to the value added in Mexico, thereby reducing the significance of U.S. tariff elimination. Removal of Mexican tariffs, currently 15 percent ad valorem on autos and 13.2 percent on auto parts, and Mexican quantitative import limits represents a much more significant change. It is likely that U.S. exports to Mexico will increase when these barriers are removed. However, the small size of the Mexican market and the dominance of Nissan and Volkswagen, which have captured more than half the Mexican auto market, indicate that rapid market growth must continue in Mexico for U.S. exports to Mexico to increase.

Liberalization of Mexican investment restrictions and performance requirements could have an important effect by making it more attractive for the Big Three U.S. automakers to invest in Mexican auto plants. The basic question is whether these automakers will make these investments in Mexico. Labor costs in Mexico

<sup>68</sup> Based on telephone interviews with representatives of Toyota, Honda, and Japan Automobile Manufacturers Association. Both companies express general support for an FTA. Toyota noted concern that bilateral agreements not be discriminatory and that they liberalize trade on the multilateral level.

<sup>69</sup> Two major non-U.S. automobile firms expressed their concern that an FTA might favor U.S. firms or firms currently invested in Mexico.

<sup>70</sup> The United Auto Workers Union is concerned about U.S. job losses under an FTA with Mexico. It believes that Mexico's low wages will be a factor in the cross-border rationalization of North American production. (See USITC, *Review of Trade and Investment Liberalization Measures by Mexico*, Phase II, USITC Publication 2326, October 1990, p. 2-15.) Also, the Springs Manufacturers Institute, in a written submission to the Commission, states that an FTA would result in a U.S. job losses and would have an overall adverse impact on the U.S. spring industry. On the basis of a USITC staff telephone interview with Rockwell International, Inc., Nov. 20, 1990, factors such as just-in-time capabilities, cross-border flexibility, and technical literacy are the key determinants in the integration of the North American auto parts industry.

are lower than in the United States or Canada; in fact, some industry sources contend that Mexican labor costs are 65 to 70 percent lower. However, these lower labor costs are partially offset by costs associated with Mexico's underdeveloped infrastructure and also higher transportation costs. On balance, it is estimated that the Big Three U.S. automakers could increase profit margins by 4 to 10 percent by producing in Mexico.<sup>71</sup> On the other hand, the automakers are under pressure in the U.S. market to reduce capacity and might find it difficult to invest in existing or greenfield plants in Mexico.

## Cement

Mexico is a major supplier of cement to the United States, especially in the southwestern and southern border and coastal region where it has captured 11 percent of the market. Imports from Mexico, totaling \$118 million in 1989, enter the United States free of duty, although they are subject to U.S. antidumping and countervailing duty orders.<sup>72</sup> By contrast, U.S. exports to Mexico, totaling a much smaller \$2 million, are dutiable at 10 percent ad valorem. All but a small part of U.S. imports from Mexico are supplied by CEMEX, the largest cement producer in the Western Hemisphere that also maintains extensive operations in five U.S. border States. Recently, the USITC found that imports of Mexican cement sold at less-than-fair value injured the U.S. industry on a regional basis.<sup>73</sup>

An FTA with Mexico would have no impact on U.S. imports of cement from Mexico, because cement already enters free of duty and NTBs. An FTA would lead to a significant increase in U.S. cement exports to Mexico, but would have no impact on U.S. cement trade with Canada or other countries. Because of the regional nature of the U.S. industry, an FTA could benefit U.S. producers located near the U.S.-Mexican border. The expected growth in U.S. exports to Mexico, however, would represent only a negligible portion of U.S. industry shipments, both overall and for the regional industry.

<sup>71</sup> Based on information provided by industry representatives, October–November 1990.

<sup>72</sup> At the request of the United States Trade Representative, the USITC instituted investigation No. 332–306 on Nov. 26, 1990, to determine the probable economic effect of the revocation of the outstanding countervailing duty order on the U.S. cement industry. See *Federal Register* of Dec. 27, 1990, p. 53203.

<sup>73</sup> In a written submission to the Commission of Nov. 26, 1990, The Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement, the petitioner in the antidumping case, welcomes an FTA that does not exempt Mexico from U.S. dumping and countervailing duty laws. The U.S. Department of Commerce determined that the dumping margins range from 3.69 to 58.38 percent. For a discussion of the USITC determination, see *Gray Portland Cement and Cement Clinker From Mexico*, Investigation No. 731-TA-451 (Final), USITC Publication 2305, August 1990.

## Industry profile

The cement industry is segmented on a regional basis because of the transportation costs associated with the low value-to-weight product. The limit for economical land transportation is usually within a 200 mile radius of production and distribution facilities. Where cheaper water transportation is available; the limit can be more than 1,000 miles. As a result, U.S. trade with Mexico is largely limited to producers in the southwestern and southern region, encompassing Florida, Alabama, Mississippi, Louisiana, New Mexico, California, Texas, and Arizona. Some of the most cost efficient U.S. producers are located in the region, where an estimated 35 percent of U.S. cement capacity exists.

CEMEX, a privately owned company, dominates the Mexican industry, generating about 71 percent of Mexico's cement output and about 90 percent of its cement exports.<sup>74</sup> It uses state-of-the-art equipment comparable to the best that exists in the United States, but its production costs tend to be lower than the overall U.S. industry average. CEMEX plans to increase its capacity with a new plant at Hermosillo, Sonora, and expand its facilities in Ensenada, Baja California Norte and Merida, Yucatan,<sup>75</sup> reportedly to meet increasing demand in the Mexican market. The firm also maintains extensive operations in Florida, Texas, New Mexico, Arizona, and California, where its cement import terminal investments have a combined throughput capacity of 6.4 million metric tons,<sup>76</sup> nearly double the firm's stated annual exports to the United States.<sup>77</sup> CEMEX also has U.S. plants making aggregate (raw concrete material), concrete block, and ready-mix.<sup>78</sup> The other producers in the Mexican industry are smaller firms serving local markets, and only one of them (Apasco) consistently exports to the United States.

Foreign investment in the U.S. cement industry is considerable, with two-thirds of total U.S. capacity under foreign ownership. The major investment sources are Switzerland, France, the United Kingdom, Germany, and Italy. By contrast, the only foreign investment in the Mexican industry so far is the minority interest held by a Swiss firm in Apasco, the second largest Mexican producer. The potential exists for new foreign investment now that Mexico, which liberalized its investment regulations in 1990, permits full foreign ownership of cement firms.

<sup>74</sup> Estimated by the USITC staff.

<sup>75</sup> USITC, *Cement From Mexico*, USITC Publication 2305, August 1990, p. A-56.

<sup>76</sup> Fred D. Ullman, *Mexico's Cement Industry*, (Ullman & Associates, Inc.), July 19, 1990, p. 15.

<sup>77</sup> *Predicasts F&S Index, International*, Vol. 23, No. 9, September 1990, p. 45.

<sup>78</sup> USITC, *Cement From Mexico*, USITC Publication 2305, p. A-57.

## Trade profile

Because cement competes principally on the basis of price, the cost of transportation tends to limit U.S. bilateral trade with Mexico and Canada to those markets close to their respective borders and along coastal markets having ports that can be supplied by bulk shipping. The United States exports about 1 percent of its cement production; in 1989, 8 percent of the exports went to Mexico and 73 percent went to Canada. Mexico exports an estimated 16 percent of its cement output, with 95 percent of the exports going to the United States. In 1989, Mexico supplied 3 percent of total U.S. consumption by value, but 11 percent of the market in the southwestern and southern region.<sup>79</sup> Cement trade between Mexico and Canada is negligible because of prohibitive transportation costs.

U.S. imports of cement enter free of tariff and non-tariff barriers, although those from Mexico are subject to U.S. antidumping and countervailing duty orders.<sup>80</sup> Mexico levies a duty of 10 percent ad valorem on U.S. cement, along with an 0.8-percent customs handling fee and a 15-percent value added tax (VAT).<sup>81</sup> In Mexico, domestically produced goods reportedly are also subject to VAT, ranging from zero to 15 percent.<sup>82</sup>

## Likely impact of the FTA with Mexico on the United States

### Impact on U.S. trade with Mexico

An FTA is expected to have little, if any, impact on U.S. cement imports from Mexico, which already enter free of any barriers. Unless there are negotiated provisions that deal directly with the dumping and countervailing laws, the outstanding antidumping and countervailing duty orders on cement from Mexico will continue to be administered according to established regulation requirements. The Mexican market currently is effectively closed to U.S. industry; it is expected that elimination of the current 10-percent Mexican duty will make U.S. cement more competitive in Mexico. Thus, U.S. cement exports to Mexico are likely to increase significantly in the border and coastal markets in both the short and long term because cement is a fungible product sold on the basis of price. High transportation costs are likely to limit U.S. exports to Mexican areas along the border and coastal regions.

<sup>79</sup> *Ibid.*, p. A-13.

<sup>80</sup> U.S. imports of cement, as well as other products, are assessed a customs user fee generally equal to 0.17 percent ad valorem.

<sup>81</sup> Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement, exhibit 2, p. 21.

<sup>82</sup> U.S. Department of Commerce, Overseas Business Reports, *Marketing in Mexico*, OBR 90-09, August 1990, p. 11.

## Impact on U.S. trade with Canada and other countries

An FTA with Mexico would have no impact on U.S. cement trade with other countries. Existing trade with Canada and other countries is based on border access and low-cost transport considerations.

## Impact on U.S. Industry, Overall and by Major Regions

Since U.S. exports represent about 1 percent of total production, the expected increase in U.S. cement exports to Mexico would provide a negligible benefit to the U.S. industry in the short and long term. The projected growth would be very small relative to industry shipments, both overall and for producers in the southwestern and southern region that are already competitive on a production cost basis with Mexican producers. Nevertheless, any benefit to the industry would accrue mostly to the border producers, given their proximity to Mexican markets that can be effectively supplied by land transportation or their access to deep water port facilities. Competing in more distant Mexican markets would be limited by transportation costs.

An FTA could encourage U.S. investment in Mexico's cement and related product industries, especially now that Mexico allows 100-percent foreign ownership of firms in the industry. Mexico is a large and growing market for cement, especially given the need for infrastructure improvements there. Because proximity to major markets is especially critical in the cement industry, access to major construction projects in Mexico would most likely necessitate investment there. Any U.S. investment there would most likely be similar to that of CEMEX in the United States and include raw material plants, import and distribution facilities, and concrete product facilities.

## Chemicals

U.S. trade in chemicals and allied products, including petrochemicals and pharmaceuticals, has historically been marked by a favorable balance of trade, both overall and with Mexico. The trade surplus with Mexico, the third largest export market after Japan and Canada, amounted to \$1.6 billion on total trade of \$2.8 billion in 1989. Nevertheless, U.S. trade with Mexico is affected by several trade and investment barriers. In "basic" petrochemicals, for which the United States is the world's largest producer, foreign investment in Mexican production is constitutionally prohibited, and ownership is reserved for the parastatal company PEMEX. In May 1989, when Mexico implemented newly revised foreign investment rules, a number of basic petrochemicals were reclassified as secondary. Although provisions were made for 100-percent foreign ownership of most secondary petrochemical facilities, there are approximately 66 individual secondary petrochemicals which still have a 40-percent foreign investment

limit remaining.<sup>83</sup> Foreign investment is also impeded in Mexico's specialty chemical and pharmaceutical sector, because of the lack of intellectual property rights protection.<sup>84</sup>

An FTA with Mexico would likely promote an increase in the level of cross-border trade in the chemicals sector, but only if NTBs are eliminated. Certain sectors of the U.S. chemical industry, such as chemical intermediates, could experience higher levels of export activity. Additionally, improvements in the level of intellectual property rights protection offered by the Mexican Government could promote increased levels of technology licensing to Mexican producers by both U.S. and other foreign producers. Such developments could also promote increased U.S. exports of chemical intermediates and feedstocks, as well as other non-chemical sector products to the Mexican market. In turn, increased levels of Mexican chemical production would supply the growing demands of the Mexican market and also probably enter international commerce, both in the United States and in other foreign markets.

### *Industry profile*

The U.S. chemical industry is one of the largest industries in the United States, directly employing an estimated 820,000 people in more than 12,000 plants. The significant restructuring that took place during the mid-1980s enabled the industry to remain the world's leader in process and product technology and a major supplier in markets both at home and abroad. With shipments of \$274 billion in 1989, the U.S. industry dominates the domestic market, supplying more than 90 percent of domestic consumption. It ranks as the world's largest producer of basic olefins and aromatics, accounting for more than one-third of total world output in 1989. The U.S. industry also is a major producer of pharmaceuticals, with shipments of \$39 billion that year; it supplies more than 90 percent of U.S. consumption of pharmaceutical products.

The Mexican chemical industry has reportedly accelerated its output of major chemicals in recent years. According to PEMEX, production of ethylene and its derivatives all rose between 50 and 100 percent during 1985-89, as did styrene, toluene, the xylenes (from benzene), and ammonia. In general, the Mexican basic petrochemical industry comprises world-scale plants using up-to-date process technology equivalent to plants in the United States and Canada. The Government of Mexico maintains a two-tier industrial pricing

<sup>83</sup> Interview with Lic. Georgina Y. Kessel, Professor, Instituto Tecnológico Autónomo de México (ITAM), on Dec. 14, 1990, in Mexico City.

<sup>84</sup> Submission by Pfizer International, New York, NY.

policy for petroleum products and natural gas.<sup>85</sup> Although these products are usually sold to both domestic independent industrial consumers and foreign consumers at prices close to world prices, those firms that are either wholly or partially owned by PEMEX obtain these same materials at transfer prices, believed to be below world price levels. These feedstocks are sold at the same price to independent Mexican firms and joint venture firms operating in Mexico. PEMEX retains the sole responsibility for the production of basic petrochemicals, which are also the feedstocks for all petrochemical products.

The availability of low-cost feedstocks to all Mexican chemical producers before 1985 played an important role in encouraging the Mexican chemical industry during the 1980s to concentrate on the manufacture of primary petrochemicals and other major petrochemical products such as plastics resins, one of the primary products derived from these feedstocks. In addition, the ease of diversion of these materials from the local market to the export market, when necessary, provided Mexico with much needed hard currency. However, the industry reportedly is now deemphasizing the export of many of these petrochemicals. Instead, the Mexican Government is believed to be attempting to expand their domestic production of consumer-oriented petrochemical products, such as plastic film and sheet, in order to meet Mexico's steadily rising internal demand.

In the pharmaceutical sector, the Mexican market is dominated by foreign multinationals, based primarily in the United States and Western Europe. In many cases, these firms have subsidiaries producing pharmaceutical products in Mexico for the Mexican market, although their major research and development activities are generally maintained in other locations, particularly in those nations with stronger intellectual property protection.

### *Trade profile*

The U.S. trade surplus in chemicals reached a record \$16 billion on total trade of \$57 billion in 1989. Mexico was the third largest market for U.S. chemical exports after Japan and Canada. However, Mexico is a relatively small supplier to the U.S. market, where Canada, West Germany, Japan, and the United Kingdom were the major suppliers. The U.S. trade surplus with Mexico in 1989 totaled \$1.6 billion on exports of \$2.2 billion, or 6 percent of total U.S. exports, and imports of \$570 million, or 3 percent of the U.S. total. In pharmaceuticals, the overall U.S. trade surplus reached \$0.8 billion on total trade of \$8.0 billion. U.S. pharma-

<sup>85</sup> A two-tier industrial pricing policy refers to a nation's practice or formal policy of pricing natural resource products to domestic industrial users in the country concerned at prices substantially below the export selling price or other market value of the product.

chemical trade with Mexico is small, with a trade surplus of \$56 million on total trade of \$100 million in 1989.

U.S. chemical exports to Mexico are fairly diversified among primary chemicals, intermediates, and chemical products. U.S. imports from Mexico are, in general, similar in quality to U.S. production and trade with Canada and other nations. However, infrastructure problems in Mexico, particularly those related to transportation of finished products, undermine the capability of its industry as a supplier to the U.S. market. As a result, end users often give preference to United States and Canadian suppliers over Mexican producers.

Major barriers to trade and investment exist in certain sectors of the Mexican chemical industry. Currently, ownership of basic petrochemical production in Mexico is constitutionally reserved for PEMEX. Following a revision of Mexico's foreign investment rules in May 1989, a number of basic petrochemicals were reclassified as secondary, and 100-percent foreign ownership of facilities producing most secondary petrochemicals was allowed. Nevertheless, trade sources report that barriers still exist concerning the acquisition of a controlling interest in these firms. Other concerns include the lack of intellectual property rights protection, Mexico's two-tier pricing policies, and registration procedures for various specialty chemicals and chemical products viewed as arbitrary and discriminatory toward U.S. exporters.<sup>86</sup> Another factor that could impede U.S. trade with Mexico in chemicals is the relationships developed over the years between certain domestic and foreign suppliers in other nations and U.S. purchasers of chemicals and chemical products.

### *Likely impact of the FTA with Mexico on the United States*

#### **Impact on U.S. trade with Mexico**

An FTA would have a negligible impact on U.S. imports from Mexico, largely because U.S. duties average a relatively low 4 percent ad valorem. Also, the Mexican chemical industry is faced with infrastructure problems that affect its ability to deliver products on a timely and dependable basis.

U.S. exports to Mexico would probably rise only negligibly in response to the elimination of Mexico's duties, which, at approximately 15 percent, are relatively significant. The elimination of Mexico's other barriers could have a much greater impact on trade and investment, especially in pharmaceuticals and other high value-added products. Substantive protection of intellectual property rights in Mexico would probably lead to a significant increase in U.S. investment in high

technology products there. Such investments would promote a complementary increase in trade, as many of the chemical intermediates used to produce these items are specialized materials that are generally not produced by Mexican producers.

#### **Impact on U.S. trade with Canada and other countries**

An FTA would likely have a negligible impact on U.S. trade with Canada and other countries. An increase in U.S. exports to Mexico of even moderate proportions would not significantly reduce U.S. supplies of product available for export to other markets. Mexico also is a relatively small supplier of chemicals to the U.S. market and a large part of the imports from Mexico are not competitive with those from other nations.

#### **Impact on U.S. industry, overall, and by major regions**

An FTA would have a negligible effect on the overall U.S. chemical industry in both the short and long term, owing to the large size of the U.S. industry and the relatively small share of U.S. trade and consumption accounted for by Mexico.

Although the U.S. and Mexican industries plan to expand their production capacity for chemicals and allied products, these increases do not depend on the conclusion of an FTA. The planned expansion in Mexico is related to the current discrepancy between Mexican demand for these materials and their domestic production capacity. On the other hand, U.S. expansions are more closely related to the world market and the need for increased world-scale production to maintain pace with increasing world demand.

Although much of the U.S. chemical industry is located in certain geographical areas, the regional nature of any effects associated with an FTA would be moderated by the fact that the transportation capabilities of the U.S. industry would allow for the smooth and simple diversion of products from one marketing area to another.

### **Electronic Equipment<sup>87</sup>**

U.S. trade in electronic equipment with Mexico grew rapidly during the 1980s, although it was marked by a U.S. deficit of \$1.3 billion on total trade estimated at \$8.1 billion in 1989. Trade with Mexico is concentrated in the maquiladora sector, in which electronics, along with auto parts, are the largest operations in terms of Mexican value added. The nominal U.S. tariff on Mexican electronic products averages 5 percent ad

<sup>87</sup> Electronic equipment principally includes (1) television receivers and other consumer electronic products, (2) electronic components, including semiconductors, television picture tubes, and articles for making and breaking electrical circuits, such as connectors, relays, and switches, (3) office machines, including computers, and (4) telephone and telegraph apparatus.

<sup>86</sup> Submission by Pfizer International, New York, NY.

valorem, although some duty rates are as high as 15 percent. The effective trade-weighted duty averages only 2 percent, given the large portion of the trade that enters at reduced duties under either the maquiladora or GSP programs. By contrast, Mexico's imports of electronic products from the United States are subject to average tariffs estimated at 16 percent ad valorem.<sup>88</sup>

An FTA with Mexico would likely result in a negligible increase in U.S. imports from Mexico. U.S. exports, however, would likely increase moderately in the short term and significantly in the long term. The difference between United States and Mexican tariffs is one explanation of the differential growth rates that can be expected under an FTA. Elimination of Mexico's "buy national" policies and local content rules would also serve to expand the market in Mexico for U.S. exports. There is a need in Mexico for modern equipment, particularly in the telecommunications sector. U.S. producers of telecommunications apparatus,<sup>89</sup> office machines, and other advanced-technology equipment needed to improve Mexico's infrastructure would likely benefit the most from an FTA. The predicted minimal impact of the FTA on imports from Mexico is predicated upon the adoption of rules of origin that would effectively prevent circumvention of U.S. import duties and restrictions by third-party countries, especially for television picture tubes, electrical capacitors, and other high-duty articles.

### Industry profile

The U.S. electronics industry is the second-largest manufacturing sector in the U.S. economy after the auto and auto parts sector, with shipments of \$192 billion and a workforce estimated at 2 million in 1989.<sup>90</sup> The U.S. industry, the largest in the world and a leader in the development of new product and process technologies, dominates the domestic market, although it relies heavily on foreign suppliers, particularly for components and assemblies whose manufacture is labor intensive. U.S. production primarily consists of capital-intensive goods, such as computers, telecommunications apparatus, and electronic components, the manufacture of which requires a highly skilled workforce. U.S. producers of other electronic products, particularly consumer electronic products and components, perform a large part of their labor-intensive operations in low-wage countries, such as Mexico. These countries have, in turn, sought technology and investment from developed countries to assist in the development of their electronic sectors.<sup>91</sup>

<sup>88</sup> Estimated by the USITC staff from official statistics of Mexico's Secretariat of Commerce and Industrial Development (SECOFI).

<sup>89</sup> For the purposes of this section, telecommunications apparatus includes telephone and telegraph apparatus, cellular telephone apparatus, transmitters, fiber optic equipment, and other devices that are enumerated in section 1373 of the Omnibus Trade and Competitiveness Act of 1988.

<sup>90</sup> The industry is dispersed across the nation, although concentration exists in the Boston area in Massachusetts, Santa Clara Valley in California, Research Triangle in North Carolina, and certain areas in Texas.

Mexico's electronics industry has grown rapidly in the last decade, primarily reflecting the buildup of maquiladora operations by U.S. producers. The overall industry that now generates about 3 percent of Mexico's GDP recorded total shipments of about \$6.5 billion and employed an estimated 250,000 workers in 1989.<sup>92</sup> Maquiladora plants generate about one-half of the Mexican industry's output<sup>93</sup> and employ two-thirds of its workforce, or roughly 168,000 workers. Of the 1,857 maquiladora plants operating in Mexico as of February 1990, 26 percent were producing electrical and electronic products. These plants are highly integrated into the production and marketing networks of their affiliated U.S. producers; less than 5 percent of the raw materials used in these plants are of Mexican origin and most of the plants are located at the border with the United States.<sup>94</sup> Only a few U.S. producers market the output of their maquiladora plants in Mexico.<sup>95</sup>

Mexico's maquiladora operations in the electronics industry have attracted considerable foreign investment, especially investment from the United States, Western Europe, and Japan. Producers in the maquiladora sector are allowed to import inputs and production machinery free of duty, and are exempted from limits on foreign ownership.<sup>96</sup> Low labor costs and close proximity to the United States, the world's largest market for electronic products, make Mexico an attractive site for assembly operations. Foreign producers also benefit from Mexico's less stringent environmental rules and its geographical location, which helps facilitate entry into other Latin American markets.

Non-maquiladora electronics production is primarily in Mexico City and the States of Jalisco and Aguascalientes. A part of this production is accounted for by U.S. and other foreign firms that have moved their operations to these regions to avoid Mexico's tariffs and

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<sup>91</sup> Mexico's plan for promoting investment in advanced technology industries is outlined in "The National Program of Industrial Modernization 1990-1994," published by SECOFI in *Diario Oficial*, an official document of the Mexican Government, Jan. 24, 1990.

<sup>92</sup> Estimated by the USITC staff from statistics of the U.S. Department of Commerce and SECOFI.

<sup>93</sup> Committee for the Promotion of Investment in Mexico, "An Overview of the Maquiladora Industry in Mexico," January 1990.

<sup>94</sup> U.S. Department of State Telegram, Mexico City, September 1990, Message Referencing No. 25165, reporting on the maquiladora industry.

<sup>95</sup> William L. Mitchell, lecture at the USITC, Sept. 26, 1990. Also see U.S. Department of State Telegram, September 1990, Mexico City, Message Referencing No. 25165, reporting on the maquiladora industry.

<sup>96</sup> The limits on foreign ownership were removed on production of most electronics in early 1989.

NTBs.<sup>97</sup> A number of the locally owned producers in Mexico lack the skilled labor or technology to compete with U.S. and other foreign suppliers in the Mexican market for electronic equipment.<sup>98</sup> After the Mexican market was opened to foreign products in 1985, most local producers closed their operations, or were absorbed by foreign producers.<sup>99</sup>

### Trade profile

Overall U.S. trade in electronic products in 1989 was marked by a deficit of \$21 billion on total trade of \$117 billion.<sup>100</sup> U.S. imports from Mexico in 1989 accounted for about 2 percent of U.S. consumption of electronic equipment. They consisted mostly of electronic components (31 percent), television receivers (28 percent), and office machines (17 percent) that were assembled in Mexico from parts produced in the United States and the Far East. Mexico supplies a large share of the U.S. market for television receivers,<sup>101</sup> which are produced primarily in maquiladora plants owned by several Japanese and European firms, and by one U.S. firm. The remainder of the U.S. market for these television receivers is largely supplied by imports from Japan, Taiwan, Korea, Singapore and Malaysia. For office machines and electronic components, consisting primarily of electronic switchgear,<sup>102</sup> capacitors, and semiconductors, U.S. firms, which account for most of Mexico's production, both in maquiladora and non-maquiladora plants, dominate the U.S. market for these goods.

U.S. imports from Canada accounted for only 2 percent of the U.S. market for electronic equipment in 1989. However, Canada primarily supplies high-end equipment, such as office machines (41 percent), telecommunications apparatus (15 percent), and sophisticated components, such as semiconductors to the U.S. market. While a large portion of U.S. imports from Canada are made in Canada by U.S.-owned firms and a large Canadian producer of telecommunications apparatus, Canada's production relies more on skilled labor

<sup>97</sup> USITC staff interviews with industry representatives, November 1990. See also USITC, *Review of Trade and Investment Liberalization Measures by Mexico*, Phase II, USITC Publication 2326, October 1990, pp. 2-6 to 2-7.

<sup>98</sup> Patrice D. Raia, "Arresting Trade Stereotypes," *North American International Business*, November 1990, pp. 38-39. Also USITC staff telephone conversations with industry representatives, November 1990.

<sup>99</sup> Gary Newman, "Industries vs. Imports: The Gloves Are Off," *Business Mexico*, March 1989, pp. 14-19.

<sup>100</sup> The major supplier was Japan, with 40 percent of the \$69 billion in U.S. imports in 1989. Singapore, Taiwan, and Korea supplied another 36 percent, followed by Mexico and Canada, with 7 and 6 percent, respectively.

<sup>101</sup> U.S. Department of State Telegram, September 1990, Mexico City, Message Referencing No. 25165, reporting on the maquiladora industry.

<sup>102</sup> Electrical switchgear includes circuit relays, connectors, fuses, and terminals, as well as enclosures and parts for these devices.

and is more capital-intensive than production in Mexico.<sup>103</sup>

The United States was the largest supplier of electronic equipment to Mexico in 1989, followed by Europe and the Far East. Shipments from Canada were negligible. Mexico's imports from the Far East were largely consumer electronic products, of which there is limited U.S. production. U.S. firms are particularly strong in Mexico's computer and components market and they, along with the Europeans, are major suppliers in the telecommunications market. Although the United States is a telecommunications leader, the Europeans have gained considerable market share in Mexico through aggressive investment.<sup>104</sup>

Foreign firms face a number of barriers in Mexico's electronics sector. In procurement, the Mexican Government reportedly gives preference to Mexican electronics suppliers. Mexican regulations for testing and certification of equipment, such as telecommunications apparatus, are cumbersome and time-consuming. In addition, the Mexican electronics market is encumbered by regulations that restrict the conduct of business via the telecommunications networks and the attachment of equipment to the country's telephone networks. Such restrictions include the requirement for a "hard-copy" to document commercial transactions and the prohibition on setting-up and operating private business telecommunications networks for customers and suppliers to check inventories, place orders, and conduct other business transactions.<sup>105</sup>

### Likely impact of the FTA with Mexico on the United States

#### Impact on U.S. trade with Mexico

U.S. imports of electronic equipment from Mexico are expected to increase negligibly under an FTA. U.S. duties on imports of fully dutiable electronics goods from Mexico already are relatively low and Mexico's indigenous industry currently has a weak infrastructure in which to produce and distribute electronic equipment. Most of the expansion of Mexican production will likely come from increased direct foreign investment.

U.S. exports of electronic equipment to Mexico would likely benefit under an FTA, increasing moderately in the short term and possibly rising significantly in the long term. U.S. exports would be expected to increase only moderately in the short term because

<sup>103</sup> For a comparison of Canada and Mexico as production sites, see "Mexico-U.S. Free Trade Talks: Why Canada Should Get Involved," *Econoscope*, special ed., Royal Bank of Canada, September 1990.

<sup>104</sup> U.S. Department of Commerce, *U.S. Telecommunications in a Global Economy: Competitiveness at a Crossroads*, August 1990, pp. 144-145.

<sup>105</sup> USITC staff interviews with industry representatives, November 1990.

Mexico has a relatively low price elasticity of demand for these products. In the long term, Mexican demand may increase and this would likely result in an increase in U.S. exports of these products to Mexico.

U.S. exports of electronic equipment to Mexico would also increase with the removal of Mexican "buy national" policies because the Mexican Government is a major consumer of electronic goods,<sup>106</sup> such as telecommunications equipment and computers.<sup>107</sup> In addition, U.S. exports would increase with the removal of local content requirements Mexico imposes on certain electronic firms outside of the maquiladora sector.

The removal of Mexican restrictions on the use of telecommunications equipment and services is expected to expand significantly Mexico's markets for electronic equipment as well.<sup>108</sup> Demand, particularly for office machines and terminal equipment, is expected to grow significantly with the removal of regulations detailed above.

An FTA would likely stimulate foreign investment in Mexico's electronics industry. Foreign firms, especially those in the Far East and Europe, would probably shift some production to Mexico to benefit from the reduced tariffs on Mexico's exports to the United States, and to overcome the tariff advantage that U.S. producers would have over other foreign producers serving the Mexican market.

#### Impact on U.S. trade with Canada and other countries

An FTA with Mexico would have a negligible impact on U.S. trade in electronic equipment with Canada, because the product mix in U.S. trade with Mexico differs from that with Canada. On the other hand, the added competitiveness of U.S. imports from Mexico could displace some production from other low-labor-cost countries, particularly imports of electronic equipment eligible for duty-free treatment under the GSP or Caribbean Basin Economic Recovery Act (CBERA). These countries, such as Haiti and the Dominican Republic, already compete with Mexico for U.S., European, and Japanese investment in the production of electronic equipment, but proximity to the United States provides Mexico with an added advantage.

<sup>106</sup> Peter Kuitenbrouwer, "Computer Industry on Line for Growth," *Business Mexico*, June 1987, pp. 52-57.

<sup>107</sup> U.S. exports of telecommunications apparatus are expected to increase in any event as the Mexican telecommunications network undergoes renovation as a result of the privatization of Telefonos de Mexico (TELMEX), the operator of one of the networks in Mexico. Also, U.S. firms have won major contracts to supply cellular telephone systems in Mexico and U.S. exports of such products to Mexico are likely to increase.

<sup>108</sup> An analysis of the impact of an FTA on telecommunications services is provided separately in this chapter.

The expected trends in U.S. trade with Mexico under an FTA assume that rules of origin established in the agreement are clearly defined and enforced to prevent third-country circumvention of U.S. customs duties and other regulations.<sup>109</sup> Circumvention could adversely affect U.S. producers of electronic equipment, such as those producing television picture tubes and capacitors, which are subject to high U.S. tariffs, and otherwise reduce the competitive advantage of U.S. exports to Mexico under an FTA.<sup>110</sup>

#### Impact on U.S. industry, overall and by major regions

Although an FTA is expected to lead to an increase in U.S. trade with Mexico, the projected growth would have a minimal impact on the U.S. electronics industry. The additional Mexican demand for U.S. electronic equipment would likely increase total sector exports by only a negligible amount because exports to Mexico account for less than 2 percent of total U.S. shipments of electronic equipment. The major U.S. beneficiaries would likely be producers of products designed to assist in improving Mexico's infrastructure, such as electrical components, telecommunications apparatus, and office machines.

The expected increase in U.S. imports from Mexico is also likely to have a marginal impact on the U.S. industry because Mexico's shipments account for a small share of U.S. consumption and compete in the U.S. market mainly with other labor-intensive imports rather than domestically produced goods. While U.S. production that is highly labor intensive would most likely shift to Mexico,<sup>111</sup> this production may shift

<sup>109</sup> Sidney Weintraub, lecture at the USITC, and USITC staff telephone conversations with industry representatives, November 1990. Also see USITC, *Review of Trade and Investment Liberalization Measures by Mexico*, Phase II, Publication 2326, October 1990, pp. 2-10.

<sup>110</sup> In a written submission to the Commission of Nov. 8, 1990, American Matsushita Electronics Corp. (Panasonic), Troy, OH, expressed concern over circumvention of duties on television picture tubes. A written submission of Nov. 26, 1990, on behalf of the Committee to Preserve American Color Television (COMPACT), alleges that color picture tubes from Japan, Korea, Singapore, and Canada are evading existing antidumping duties by transshipping through Mexico. This submission also states that "if Mexico continues to serve as conduit for dumped imports from the Far East, any movement towards a free trade arrangement should be discouraged."

<sup>111</sup> American Matsushita Electronics Corp. (Panasonic), Troy, OH, in a written submission of Nov. 8, 1990, and a telephone conversation with USITC staff, contends that an FTA could reduce demand for U.S.-produced mid-sized (19in to 20in) television tubes. U.S. producers of television sets that incorporate these tubes already assemble a large portion of their production in Mexico in order to take advantage of Mexico's low labor costs. According to Panasonic, with an FTA, Panasonic would possibly shift its production of mid-sized television sets in Chicago, IL, to Mexico, which would reduce its U.S. labor force by about 100 workers. Moreover, Panasonic claims that this shift in production would reduce the competitive advantage over Mexican and other foreign producers of U.S.-produced tubes because of additional transportation costs. On the other hand, AT&T of Coral Gables,

there and to other low-labor-cost countries regardless of an FTA.<sup>112</sup>

The removal of barriers to U.S. trade in electronic equipment is unlikely to have any major regional effect in the United States. An FTA would eliminate the tariff advantages that maquiladora producers have over other operations in Mexico, and could conceivably draw investment away from the border region, where most maquiladora operations are located. However, in the short run, the proximity of these regions to the United States and the lack of infrastructure in most other regions in Mexico would likely continue to be the overriding factor for investors in choosing a Mexican production location.

A shift of investment away from the border area could reduce the competitiveness of U.S. suppliers because these firms currently benefit from low transportation costs and other advantages of proximity in supplying manufacturers situated close to the border. As discussed above, an FTA could eliminate some of the incentives of producers in Mexico to use U.S.-produced manufacturing inputs, depending on how rules of origin are administered.

## Energy

The United States has historically been a major market for Mexican exports of energy products, such as crude petroleum and certain refined petroleum products, as well as the primary source of Mexican imports of natural gas and other refined petroleum products. Mexico has supplied nearly half of the crude petroleum stored in the U.S. Strategic Petroleum Reserve (SPR) and the United States currently satisfies nearly 50 percent of Mexican demand for refined petroleum products. An FTA that results in the removal of duties would likely have a negligible increase in U.S. trade with Mexico in energy products, because the duties on these products are low. Although both nations have a history of energy trade, a major issue to an FTA is the Mexican constitutional ban on U.S. and other foreign investment in Mexico's energy sector, which is reserved for the state and which is operated by state-owned Petroleos Mexicanos (PEMEX).

### <sup>111</sup>—Continued

FL, in a written submission to the Commission of Nov. 20, 1990, indicates that "not one of the jobs involved in AT&T's new manufacturing facilities in Mexico was at the expense of a U.S. worker." Rather, AT&T maintains that it has relocated to Mexico from the Pacific Rim production of products that have never been made in the United States.

<sup>112</sup> In a written submission to the Commission of Nov. 23, 1990, ASC Industries, a telecommunications firm based in Woonsocket, RI, expressed such a view. This firm maintains that an FTA would help its competitiveness in the world (particularly in relation to labor-intensive producers in the Far East), by improving conditions for production sharing arrangements between United States and Mexican operations. The firm also stated that an FTA should improve U.S. access to Mexico's telecommunications market.

## Industry profile

The U.S. petroleum industry consists of large, multinational petroleum companies, large domestic firms, and smaller independent petroleum refiners. It has historically maintained a relatively advantageous position in the world energy market vis-a-vis other energy-rich nations and has been the leader in the development of new technology. The domestic industry also has a well-developed infrastructure including pipelines, tankers, ports, and other support facilities. No restrictions exist on foreign investment in the U.S. industry.

As of January 1, 1990, the United States had estimated proved reserves of 25.9 billion barrels of crude petroleum, and produced 7.8 million barrels per day. In 1989, U.S. reserves of natural gas were estimated at 165 trillion cubic feet; production was 18 trillion cubic feet. In 1989, there were 188 U.S. refineries in operation, with the capacity to refine 16.2 million barrels of crude petroleum per day. During 1985-90, U.S. energy production decreased primarily because of a decline in crude petroleum prices that began in late 1985. The recent increase in prices for crude petroleum, prompted by the Persian Gulf crisis, is not expected to result in significant increases in production because of the volatility of the situation. Prices are expected to stabilize unless there is a major disruption of supply from the Persian Gulf.

Mexico's estimated proved reserves of crude petroleum, as of January 1, 1990, were 56.4 billion barrels; reserves of natural gas were 73.4 trillion cubic feet. Mexico has 9 refineries in operation, with the capacity to refine 1.5 million barrels of crude petroleum per day. PEMEX produced an average of 2.5 million barrels per day of crude petroleum in 1989, an increase of less than 1 percent over 1988. Production of natural gas averaged 3,572 million cubic feet per day, a 3-percent increase over 1988. While PEMEX's production of refined petroleum remained relatively stable, domestic demand in 1989 rose by 7 percent over that in 1988 to 1.3 million barrels per day.

Mexico has a limited infrastructure to support its petroleum industry, which employs about 175,000 persons. Pipelines are the primary means to transport its crude petroleum, natural gas, and refined petroleum products. By law, only PEMEX may own and operate Mexico's pipelines. Additional pipeline capacity is planned so as to eliminate the need to transport refined petroleum products by its limited fleet of tank trucks and train tank cars.

By law, PEMEX has the sole responsibility for the exploitation and production of Mexico's natural resources, as well as refining operations. PEMEX also determines the levels of imports and exports of these products. The Government of Mexico maintains a two-tiered industrial pricing policy for petroleum prod-

ucts, such as natural gas.<sup>113</sup> Although natural gas prices in Mexico have risen to near international levels, this product is still sold to domestic industrial consumers below prevailing world prices.<sup>114</sup>

### *Trade profile*

The United States maintains a trade deficit in energy products, being a net importer of crude petroleum. The major source of U.S. imports of crude petroleum in 1989 was Saudi Arabia, a member of the Organization of Petroleum Exporting Countries (OPEC); Mexico, Canada, and other OPEC nations were also important sources. U.S. imports of natural gas came almost entirely from Canada. Venezuela, a member of OPEC, was the primary source of U.S. imports of refined petroleum products. U.S. exports of crude petroleum are prohibited by law, for reasons of national security.<sup>115</sup> Canada is the primary market for U.S. exports of natural gas and refined petroleum products; Mexico and Japan are other major markets.

Petroleos Mexicanos International (PMI) was created in 1989 to market PEMEX's crude petroleum and refined petroleum products in world markets. PEMEX relies heavily on export revenues, which totaled \$7.9 billion in 1989. About 90 percent of the revenue comprised crude petroleum sales. PMI traded about 150,000 barrels a day of refined petroleum products on the spot market in 1989, selling in the Gulf of Mexico region, where PEMEX maintains surpluses, and buying for the Pacific Coast and U.S. border regions. However, Mexico is expected to continue to rely on long-term contracts for its petroleum exports.

Mexico maintains a trade surplus, in terms of value, for energy products because of its exports of crude petroleum. The United States is Mexico's major trading partner, accounting for 60 percent of Mexican exports of crude petroleum in 1989.<sup>116</sup> Other major Mexican markets were Spain, Japan, France, and Israel. Mexico does not export natural gas, but instead imports it. The United States supplies nearly 90 percent of

<sup>113</sup> A two-tier industrial pricing policy refers to a nation's practice or formal policy of pricing natural resource products to domestic industrial users in the country concerned at prices substantially below the export selling price or other market value of the product.

<sup>114</sup> According to a written submission on behalf of the State of New Mexico Department of Energy, Minerals and Natural Resources, Mexico's two-tiered pricing system for petroleum products and natural gas could result in U.S. energy producers being unduly disadvantaged in their own market.

<sup>115</sup> Canada is the only market for U.S. exports of crude petroleum under a commercial agreement approved by the U.S. Government, whereby U.S. exports of the product are exchanged for imports of refined petroleum products.

<sup>116</sup> The PEMEX contract to supply petroleum to the U.S. Strategic Petroleum Reserve (SPR) expired in 1989 and was not renewed. Under a U.S. Congressional mandate, the SPR needs to buy sweet crude, which is not exported by Mexico. Mexico has supplied 42 percent of the crude petroleum currently in the SPR.

Mexico's imports of natural gas, which rose by more than 300 percent in 1989. Mexico maintains a trade deficit in refined petroleum products, because Mexico's nine refineries cannot meet domestic demand. The United States is the major source for these imports. Mexican trade with Canada in energy products is negligible because of a lack of pipeline infrastructure between the two nations. However, Mexico does export small quantities of crude petroleum to Canada via tanker.

### *Likely impact of the FTA with Mexico on the United States*

#### **Impact on U.S. trade with Mexico**

It is expected that there would be a negligible impact on U.S. trade with Mexico in energy products as a result of the removal of duties. U.S. duties average about 0.5 percent ad valorem on crude petroleum and 1.1 percent on refined petroleum products; natural gas enters duty free. Mexican duties average about 4.9 percent on crude petroleum and natural gas and 8.6 percent on refined petroleum products. Given these relatively low duties, the primary deterrent to bilateral trade in energy products is Mexico's constitutional ban on foreign investment in its energy sector. If an FTA permits U.S. investment in Mexican energy projects, the level of trade could increase moderately. The U.S. ban on exports of crude petroleum is not considered a deterrent to bilateral trade as Mexico's refineries are already operating at full capacity and cannot process additional supplies of crude. Therefore, any increase in U.S. exports would likely be refined petroleum products and natural gas.

#### **Impact on U.S. trade with Canada and other countries**

An FTA with Mexico would likely result in a negligible effect on U.S. trade in energy products with Canada and other nations. The United States maintains a large number of different sources for energy products, partly to minimize any potentially adverse effect of embargoes. Canada is already a major U.S. trading partner for energy products and the only market for U.S. exports of crude petroleum. In addition, a sophisticated pipeline system connects the United States and Canada. Many of the large multinational petroleum companies in the United States also maintain operations in Canada, frequently shipping feedstocks and products between their plants in the two countries.

#### **Impact on U.S. industry, overall and by major regions**

Any impact of an FTA would likely be limited to Texas and Louisiana (areas experiencing declines in employment and revenues in the petroleum sector), where most of the imports of Mexican energy products enter and are marketed.

## Glass Products<sup>117</sup>

Mexico is an important trading partner of the United States in glass products, ranking as the fifth-largest foreign supplier and the third-largest export market. Most U.S. imports of glass products enter duty free under the GSP; the principal exception is household glassware, the subject of the following discussion. U.S. duties on household glassware average 22 percent ad valorem, compared with Mexico's duties of 20 percent on glass products. The removal of these relatively high duties under an FTA would likely result in a significant increase in U.S. imports of household glassware from Mexico. Although the overall effect of this increase on the U.S. industry would likely be negligible, the expected import growth could have an adverse impact on U.S. producers of inexpensive household glassware, a more price sensitive, homogeneous product. The expected increase in imports from Mexico is likely to be greater and more immediate than any potential increase in U.S. exports to Mexico, which is limited in part because of the dominance in the Mexican market of Mexico's largest producer (Vitro). This Mexican producer operates an extensive and multi-faceted distribution system in many of its major markets.<sup>118</sup> In addition, the lack of an effective distribution system by U.S. producers in Mexico, where distribution channels are still developing, and the smaller size and purchasing power of Mexico's market are expected to limit U.S. sales prospects, at least in the short to medium term. The expected increase in U.S. imports from Mexico would likely have a negligible impact on U.S. trade with other countries, given that trade with Mexico is relatively small and that differences in product mix between Mexico and most other suppliers limit direct substitution.

### Industry profile

The U.S. industry producing household glassware, including tumblers, stemware, ovenware, and ornamental products, experienced considerable restructuring during the 1980s. Overcapacity and stiff price and import competition forced the industry to reduce employment and close inefficient facilities. At the same time, the industry upgraded its technology, equipment, and product design to improve its competitive position, anchored by timely and reliable delivery and customer service. Today the industry comprises 50 to 75 firms located throughout the country, 4 of which dominate the industry. The industry supplies two-thirds of the domestic market and produces mostly machine-made

<sup>117</sup> Includes all glass products except automotive flat glass, covered in the automotive products section of this report. Included here are other flat glass, fiber glass, glass containers, household glassware, and miscellaneous glass products such as laboratory glassware and glass blocks.

<sup>118</sup> Vitro, Sociedad Anonima, Annual Report 1989.

glassware. Handmade glassware, usually more costly to make because of higher labor input, reportedly accounts for less than 15 percent of U.S. output. A few U.S. producers have investments in production facilities in Western Europe and the Far East to supply local markets; U.S. investment in Mexico is believed to be negligible.

The Mexican industry leader, Vitro S.A., is a holding company with interests in product areas such as glass and glass products, home appliances, and mineral resources. A subsidiary, Vitro Crisa, uses state-of-the-art equipment to produce a wide range of handmade and machine-made glassware at three plants in Monterrey, Mexico. These plants supply at least 75 percent of Mexico's household glassware market,<sup>119</sup> which is subject to price controls for Mexican-produced glassware as well as most other merchandise made in Mexico.<sup>120</sup> The firm has reportedly been exploring expansion possibilities in the United States and Canada. U.S. imports of household glassware from Vitro Crisa are often lower priced than comparable U.S. goods, owing in part to its lower labor and energy costs.<sup>121</sup> For example, Vitro Crisa allegedly prices its glass beverage ware at about 20 to 30 percent below that of U.S. producers in the U.S. market.<sup>122</sup> Vitro Crisa's lower productivity relative to the U.S. industry is offset by considerably lower labor costs (about \$1.50 an hour versus \$15 in 1987<sup>123</sup>), which constitute nearly half of the production costs of the U.S. household glassware industry.<sup>124</sup> The cost of natural gas, another major production input, is about 15 percent lower in Mexico.<sup>125</sup> Other Mexican household glassware producers include Vidrios Karma, Vidriera Tepeyac, and Vitromesa.

### Trade profile

The United States is the only significant market for Mexico's exports of household glassware. In 1989, the United States received about 80 to 85 percent, or \$21 million, of Mexico's exports. However, Mexico generated only 4 percent of the \$513 million worth of household glassware imported into the United States, trailing France, Ireland, West Germany, Taiwan, Italy,

<sup>119</sup> "Mexican Invasion: Crisa Targets U.S. Turf," *Housewares*, Nov. 10, 1986.

<sup>120</sup> Vitro Crisa's written response to Commission staff questions, Jan. 9, 1991.

<sup>121</sup> Prehearing brief on behalf of Anchor Hocking Glass Co., Sept. 22, 1989, for Investigation Nos. TA-503(a)-18 and 332-79.

<sup>122</sup> *Ibid.*

<sup>123</sup> Written submission on behalf of Libbey Glass, Inc., Nov. 26, 1990.

<sup>124</sup> *Ibid.*

<sup>125</sup> USITC, *Foreign Investment Barriers or Other Restrictions that Prevent Foreign Capital From Claiming the Benefits of Foreign Government Programs*, USITC Publication 2212, August 1989.

Yugoslavia, and Japan. Canada, a small producer, supplied 1 percent of the imports. As a market for U.S. exports, Mexico ranked third, with an 8-percent share (\$7 million), after Canada (20 percent) and Japan (14 percent).

Although household glassware from Mexico is similar in quality to that produced in the United States and Canada, the products are generally not substitutable because of design and style differences and consumer preferences for certain types of glassware or brand names. These factors, along with consumer regard for coordination with currently owned glassware and dinnerware patterns, play an important role in consumer purchasing decisions. However, lower priced, more homogeneous glassware, such as plain tumblers or bowls, are substitutable for goods from a number of U.S. and foreign makers. U.S. imports from Mexico are concentrated in this end of the market.

The only major barrier to trade between the United States and Mexico in glassware is their relatively high duties, averaging 22 percent and 20 percent ad valorem, respectively. Lower priced household glassware, accounting for 60 percent of the imports from Mexico in 1989, is dutiable at rates ranging from 20 to 38 percent. In terms of investment barriers, Mexico's higher capital costs and underdeveloped infrastructure, especially in transportation and communications, are likely to deter any significant U.S. investment there.

### *Likely impact of the FTA with Mexico on the United States*

#### **Impact on U.S. trade with Mexico**

The elimination of the duties on household glassware under an FTA would most likely lead to a significant increase in U.S. imports from Mexico. Although moderate demand and high supply elasticities characterize the household glassware market, duty elimination would likely have a much greater impact on U.S. import levels because of the lower cost of Mexican glassware and the already developed channels of distribution for the product in the U.S. market. The expected growth in U.S. exports to Mexico would be more limited because of the dominance in the Mexican market of Vitro Crisa with its extensive distribution network, and the smaller size and purchasing power of the Mexican glassware market. In addition, Mexico's less developed infrastructure and marketing channels hinder development of an effective distribution system.

An FTA would probably have minimal effect on cross-border production shifts and investment. Vitro Crisa has already established distribution and outlet facilities in the United States. The U.S. industry may be deterred from significant investments in Mexico because of existing idle U.S. capacity and transportation and communication inadequacies in Mexico.

#### **Impact on U.S. trade with Canada and other countries**

An FTA with Mexico would have a negligible impact on U.S. trade with Canada and other countries in household glassware, partly because of the low volume of trade with Mexico relative to total U.S. trade. In addition, although the quality of goods from Mexico is similar to that from Canada and other supplying countries, the products are generally not perfect substitutes because of design and style differences and consumer preferences for certain types of glassware or brand names. Any product substitution between Mexico and other suppliers would occur primarily in price sensitive, homogeneous glassware.

#### **Impact on U.S. industry, overall and by major regions**

The expected increase in U.S. trade with Mexico in household glassware would have a negligible effect on the U.S. industry overall, because it represents a negligible portion of U.S. production. However, an increase in imports from Mexico could result in an adverse impact on U.S. producers of lower priced household glassware in which Mexican shipments are concentrated and U.S. producers' margins are low.<sup>126</sup>

### **Machinery and Equipment<sup>127</sup>**

The machinery and equipment sector, excluding electronic equipment and automotive products, is expected to remain a key element of U.S. trade with Mexico, given Mexico's need for capital goods to modernize its production base and infrastructure. An FTA that removes Mexico's import licensing requirements and duties of 10 to 20 percent ad valorem is likely to result in a moderate increase in U.S. exports of machinery and equipment to Mexico. The projected export growth is expected to benefit U.S. producers of major household appliances and capital goods such as machine tools and general industrial machinery and equipment, especially compressors and related pumping equipment used in crude petroleum and petrochemicals production and other industrial applications. The potential also exists for U.S. export growth in farm and

<sup>126</sup> Written submissions from the American Flint Glass Workers Union (AFL-CIO), Indiana Glass Co., Libbey Glass (unit of Owens-Illinois), Corning Inc., and Anchor Hocking Glass Co. (division of Newell Co.) cite similar concerns in evaluating the impact of an FTA on the U.S. industry: the industry's import sensitivity, the numerous plant closures and job losses during the 1980s, and the international competitiveness of the Mexican industry.

<sup>127</sup> A discussion of machinery and equipment, which generates three-fourths of total U.S. trade with Mexico, normally includes both electronic equipment and autos and auto parts, along with other machinery and equipment. The electronics and automotive products industries accounted for two-thirds of total U.S. machinery and equipment exports to Mexico in 1989. For purposes of this study, however, electronic equipment and automotive products are analyzed separately in other sections of this chapter.

construction machinery and food-processing, plastics injection molding, and pollution control equipment.<sup>128</sup>

The removal of U.S. duties under an FTA would result in an increase in U.S. imports of machinery and equipment from Mexico. The expected growth is likely to be concentrated in low-valued, low-technology machinery and equipment, such as general components for all types of machinery. Mexico is encouraging the export of these products to primary foreign markets. In the long term, an FTA might also encourage U.S. firms to produce more finished goods in Mexico.<sup>129</sup>

### Industry profile

The U.S. industry producing machine tools, essential components in the production of manufactured goods, shipped \$2.9 billion in products domestically in 1989.<sup>130</sup> The industry comprises small and medium firms, located primarily in the Midwest and the Northeast, although significant investment has been made in production facilities in California, Alabama, North Carolina, and Texas in recent years. The industry is a world leader in custom-design machine tools for the automotive and aerospace industries. It has also become more competitive in global markets during the past 3 years, partly as a result of the decline of the dollar against major currencies. Numerous U.S. producers have increased their exports through the rebuilding of foreign customers' machines, incorporating high technology features and components.<sup>131</sup>

Mexico's machine tool industry is small and underdeveloped. The 16 Mexican producers supply only a small portion of local demand for machine tools. Imports, primarily from the United States, Europe, and Japan, supply the market for these tools. The industry's underdeveloped state stems from Mexico's past policies of import substitution, lack of patent and trademark protection, restrictions on foreign investment, the high cost of capital, and the lack of skilled technical personnel. U.S. investment in Mexican machine tool production has primarily been limited to assembly operations in the maquiladora sector.<sup>132</sup>

The U.S. industry making major household appliances, such as gas ranges, washing machines, and refrigerators, consists of five major firms that produce a complete line of basic household appliances and

<sup>128</sup> U.S. Department of Commerce, "U.S. Trade With Mexico in Perspective," *Business America*, Dec. 4, 1989, pp. 20-22.

<sup>129</sup> "Mexico: A New Economic Era," *Business Week*, Nov. 12, 1990, p. 110.

<sup>130</sup> A typical U.S. machine tool firm, on the average, registers \$7 million in sales and employs less than 150 persons. It manufactures products mainly for the auto industry (40 percent of machine tool sales in 1989) and the aerospace industry (10 percent).

<sup>131</sup> U.S. Department of Commerce, *U.S. Industrial Outlook*, 1990 ed., pp. 21-1 and 21-2.

<sup>132</sup> U.S. Dept. of Commerce, *Business America*, pp. 20-22.

numerous, smaller firms that serve market niches. The industry which dominates the U.S. market, ranks among the world leaders in production technology and benefits from economies of scale.

The Mexican appliance industry is dominated by two firms, which in recent years have entered into joint ventures with two large U.S. appliance producers. The Mexican firms will reportedly acquire product technology and marketing expertise from the U.S. firms and produce appliances such as small-sized refrigerators, gas ranges, and components for the U.S. market.<sup>133</sup> Japanese and Korean firms with subsidiaries in Mexico are major producers of small refrigerators (under 6 cubic feet) for the U.S. market. The few major appliance producers in Canada are mostly subsidiaries of U.S. firms. In addition, a few Canadian firms have recently established production facilities in the United States to produce refrigerators and freezers.

The general industrial machinery and equipment industries in the United States had combined shipments of \$25 billion in 1989. They comprise primarily small to medium firms producing equipment such as pumps, compressors, and industrial valves for the oil production and refining industries. These firms are located mainly in the Southwest and Midwest regions of the United States. U.S. producers of equipment using advanced technologies, particularly oilfield equipment, are world leaders in technology and technical assistance in areas such as deep water petroleum drilling and exploration.

Mexico's industrial machinery and equipment industry partly complements U.S. production of these same products. A few Mexican firms, with labor-saving production technology acquired from U.S. producers operating in Mexico's maquiladora sector, now make components for U.S. firms.<sup>134</sup> Mexican producers generally rely on U.S. technology for production equipment. In U.S. markets, these producers lack access to marketing expertise and inexpensive capital. In addition, many Mexican producers are unable to compete with U.S. producers of finished products because of stringent U.S. technical, safety, and quality control standards.

### Trade profile

U.S. exports of machinery and equipment to Mexico are subject to relatively high Mexican duties, ranging from 10 to 20 percent ad valorem. Exports are also hindered by Mexico's insufficient protection of intellectual property rights, which has discouraged some U.S. and other foreign investment and the introduction of advanced technologies into Mexico.

<sup>133</sup> "Industries vs. Imports: The Gloves Are Off," *Business Mexico*, March 1989, pp. 18-19.

<sup>134</sup> El Paso Industrial Development Corporation, "Economic Development in El Paso: A Retrospective of the Eighties," 1989 Annual Report, p. 5.

U.S. exports of machine tools to Mexico, totaling \$107 million in 1989, are largely used by firms in Mexico's maquiladora program. Other important end users of U.S.-produced machine tools in Mexico include the automotive, mining, household appliance, and steel industries. The remainder of the Mexican market for machine tools is predominately supplied by European or Japanese firms. U.S. imports of Mexican machine tools totaled only \$2 million in 1989.

U.S. trade with Mexico in major household appliances in 1989 totaled \$516 million, with \$245 million in U.S. exports and \$271 million in U.S. imports. Mexico was the second largest export market for U.S. appliances in 1989; most of the exports to Mexico consisted of large-sized refrigerators (over 19 cubic feet). U.S. producers, which supply over two-thirds of Mexico's total imports of major household appliances, expect the Mexican appliance market to grow significantly, given that nearly 60 percent of Mexico's population of 85 million people in 1990 was under 25 years of age.

Mexico has been the fifth-leading foreign supplier of household appliances in recent years. U.S. imports of Mexican household appliances consist almost entirely of refrigerators, washing machines, and components produced under the maquiladora program or entered duty free under the GSP.<sup>135</sup>

U.S. trade with Mexico in general industrial machinery and equipment is concentrated in the maquiladora sector. In 1989, U.S. exports to Mexico totaled \$367 million and U.S. imports from there totaled \$275 million. The majority of the exports to Mexico consisted of pumps, pumping equipment, and industrial valves for use in petroleum and petrochemical production. The major Mexican purchasers of these products, such as the state-owned oil company Petroleos Mexicanos (PEMEX), rely on U.S. technology and equipment for developing new oil and gas fields.<sup>136</sup> A few large Mexican producers of pumping equipment and valves have begun to export their products to the United States in recent years, but have incurred difficulty in meeting U.S. safety and technical regulations.<sup>137</sup>

### *Likely impact of the FTA with Mexico on the United States*

#### **Impact on U.S. trade with Mexico**

##### *Machine Tools*

U.S. exports of machine tools to Mexico are likely to increase moderately under an FTA, because Mexican

<sup>135</sup> Interview with officials of Vitro Enseres Corp., Dec. 13, 1990, in Mexico City.

<sup>136</sup> Interview with officials of Lanzagorta Corp. on Dec. 13, 1990, in Mexico City.

<sup>137</sup> Ibid.

duties on machine tools are relatively high, ranging from 10 to 20 percent ad valorem. Mexican demand for machine tools is recovering rapidly from depressed levels of recent years and is likely to increase as Mexico restructures and modernizes its automotive, steel, railroad, construction, mining, and shipyard industries. U.S. imports of machine tools from Mexico are not expected to grow under an FTA, because of the Mexican industry's small production base and structural problems.

##### *Certain Household Appliances*

Elimination of Mexico's tariffs on appliances, which approach 20 percent ad valorem, is likely to result in a moderate increase in U.S. exports of household appliances to Mexico. U.S. imports from Mexico, on the other hand, are unlikely to expand as a result of an FTA, because they already enter at reduced duties under the maquiladora program or duty free under the GSP. In the long term, however, an FTA might accelerate the consolidation of production by U.S. producers in Mexico, which has already occurred to a limited extent, given Mexico's low-cost labor and less stringent environmental regulations.<sup>138</sup> An FTA that also results in the equalization of technical product standards (such as energy efficiency standards) would likely encourage this rationalization process.

##### *General Industrial Machinery and Equipment*

An FTA that removes Mexico's relatively high duties on these products would likely result in a moderate increase in U.S. exports to Mexico. Mexico levies duties of 10 to 20 percent ad valorem on compressors, pumping equipment, and other oilfield equipment. U.S. producers are well-positioned in these products, for which most Mexican producers lag behind in terms of technology and quality. Moreover, Mexican demand for these products is expected to grow in response to the numerous civil construction projects being undertaken by the Mexican Government (e.g., the expansion of four regional airports).<sup>139</sup>

An FTA could result in a shift of production from the United States to Mexico as small and medium firms in both nations integrate their labor-intensive, low-technology production processes to reduce costs. Assuming an FTA does not equalize U.S. and Mexican environmental, health, and safety regulations, U.S. firms with operations in Mexico would maintain a cost advantage over those firms producing in the United States.<sup>140</sup>

<sup>138</sup> U.S. Dept. of Commerce, *Business America*, pp. 20-22.

<sup>139</sup> U.S. Department of State Telegram, "Foreign Investment Climate Statement," Aug. 14, 1990, Message Reference No. R-242039.

<sup>140</sup> Written submission to the Commission from Environmental Dynamics, Inc., Nov. 20, 1990, pp. 1-3.

## Impact on U.S. trade with Canada and other countries

An FTA with Mexico would have a negligible impact on U.S. trade with Canada and other countries in the products covered here. U.S. imports of machine tools from Mexico come almost entirely from the maquiladora sector and consist of parts that are incorporated into finished products, such as capital goods, in the United States. The United States is essentially the only significant export market for Mexico's general industrial machinery and equipment products, and an FTA should not affect this situation. U.S. imports of household appliances from Mexico do not presently compete with products from Canada or other countries. U.S. imports of refrigerators from Mexico, for instance, are those under 6 cubic feet that are intended specifically for niche markets (such as in recreation vehicles and office buildings), in which Japan and Korea are currently the only other significant foreign suppliers. Moreover, Mexico's product quality, though improving, is lower than that of products traded between the United States and other countries.<sup>141</sup>

## Impact on U.S. industry, overall and by major regions

### *Machine Tools*

Given the relatively small size of the Mexican market for machine tools, an FTA would likely result in a positive but negligible impact on the overall U.S. industry. However, some benefits would accrue to U.S. producers of machine tools for the automotive, steel, and plastics-injection-molding-machinery industries, and for U.S. producers of items for port and highway construction, and railroad development. In the long term, some U.S. production of components for machine tools that are highly labor intensive could be moved to Mexico.

### *Certain Household Appliances*

Given the size of the overall U.S. appliance industry relative to the Mexican market, the expected growth in U.S. exports of household appliances under an FTA would likely result in a negligible increase in U.S. production. However, the U.S. industry may be adversely affected in the long term by gradual increases in Mexican exports of certain household appliances (such as refrigerators under 16 cubic feet) to the U.S. market. However, this assessment is dependent upon Mexico's improving its infrastructure problems that currently impede its ability to deliver products on a timely and reliable basis.

<sup>141</sup> Interview with officials of Whirlpool Corp., Aug. 28, 1990.

## *General Industrial Machinery and Equipment*

An FTA would most likely result in a negligible overall increase in U.S. production of general industrial machinery and equipment in the short term. Numerous U.S. firms currently supply certain industries in Mexico (e.g., crude petroleum and petrochemicals) and would likely increase their shipments as a result of greater emphasis placed on the modernization of such industries by the Mexican Government. However, U.S. export production for Mexico may decline in the long term as a result of an expected increase in Mexican production of general industrial machinery and equipment.

## **Steel Mill Products**

Mexico has been one of the largest markets for U.S. exports of steel mill products (steel), accounting for about 14 percent of all such exports in 1989. The United States is Mexico's largest export market for steel, accounting for half of total Mexican steel exports in 1989. Mexico's steel exports to the United States have been limited to less than 1 percent of apparent U.S. steel consumption since 1984 under a voluntary restraint agreement (VRA) that is scheduled to expire in March 1992.<sup>142</sup> U.S. tariffs on steel range from 0.5 percent to 11.6 percent ad valorem and Mexico's duties range from 10 to 15 percent.

The removal of tariffs under an FTA is likely to result in a moderate short-term increase in both U.S. imports from Mexico and U.S. exports to that nation.<sup>143</sup> The long-term impact is likely to be more significant as new market opportunities are pursued and trading relationships developed. The expected export growth is likely to be concentrated in higher value sheet products for use in autos and appliances, and for which Mexican production is currently limited. Significant U.S. export gains are also expected in non-flat-rolled products for construction and oil industry applications, which are price-sensitive items that have faced more restrictive Mexican barriers in the past. The projected growth in U.S. imports from Mexico is likely to consist of products currently subject to relatively high U.S. tariffs, such as high-value specialty steels, and also products with moderate duties, such as sheet, plate, bar, rod, and wire products and certain tubular products. The trade shifts that are likely to occur under

<sup>142</sup> Overall VRA ceiling levels for U.S. imports since September 1984 have fluctuated between 18.36 percent and 20.26 percent of apparent U.S. consumption. For a detailed discussion of the VRA program, see USITC, *Monthly Report on the Status of the Steel Industry*, Investigation No. 332-226, various issues.

<sup>143</sup> Negotiations are being held among major steel-producing nations, including Mexico, to reduce steel tariffs to zero by agreement signatories. Should an international consensus be implemented, the preferential position of U.S. and Mexican steel producers in each other's markets under an FTA would be reduced.

an FTA are small relative to overall U.S. production and, thus, are expected to have a negligible effect on the U.S. industry and on U.S. trade with other foreign suppliers.

### Industry profile

The steel industries in both the United States and Mexico underwent significant adjustment during the 1980s, a decade in which steel production, capacity and employment in both countries declined (table 4-1). Capacity reductions in the integrated sector of the U.S. industry<sup>144</sup> were accompanied by sizable investment in modernizing facilities, particularly in equipment designed to improve the quality and efficiency of sheet facilities. In addition, a number of integrated U.S. mills invested in new equipment and facilities designed to improve their competitiveness in high-value rolled products, including a number of sheet coating facilities.

U.S. minimills, which account for 25 to 30 percent of U.S. steel production, are currently estimated to have lower production costs than integrated mills,<sup>145</sup> and are likely to be quite competitive with their Mexican counterparts, given a reduction in Mexican tariffs. The minimills represent an increasingly important segment of the U.S. industry, as they have expanded their capacity and product range during the 1980s.<sup>146</sup> Minimills are likely to focus on exports of bars, rods, and structural shapes in the short term; they may, however, become active in lower-value sheet products if further investment in flat-rolled facilities proceeds.

The Mexican industry's consolidation and modernization has also resulted in competitive mills for certain products, which are likely to be the focus of increased exports to the United States.<sup>147</sup> The primary advantage of the Mexican industry, about half of whose output is generated by state-owned mills, is in lower labor costs, currently estimated at about \$3 per hour versus over

\$25 for the U.S. industry.<sup>148</sup> However, the lower wages are partially offset by lower productivity of the Mexican work force.<sup>149</sup> One industry analysis estimates a \$50-per-ton cost advantage for Mexican flat-rolled steel delivered to the Chicago area, over a similar product from northern Indiana integrated mills,<sup>150</sup> representing a cost advantage of about 10 percent on a steel mill product costing \$520 per ton.<sup>151</sup> Minimill cost comparisons are likely to be more favorable to U.S. mills as hourly labor costs are lower and labor is used less intensively.

Geographically, Mexican mills are well-situated to increase trade with the United States; for example, two large integrated mills, Ahmsa and Hylsa, are located about 100 miles from the U.S. border. Two others, Tamsa and Sicartsa, have coastal locations that provide good access to the Gulf Coast and to the West Coast, respectively. Most large integrated U.S. mills, on the other hand, are more distant from the Mexican market, being concentrated in the mid-Atlantic and upper mid-west regions. However, U.S. producers indicate that this should not significantly affect their ability to increase exports, because both rail and barge transportation to the border region is available.<sup>152</sup> Minimills appear better positioned as several mills are relatively close to Mexico.

Cross-border investment in steel is believed to be negligible. However, most major integrated firms in the United States have Japanese or European partners<sup>153</sup> and at least one Mexican mill has foreign partners.<sup>154</sup> In addition, investment opportunities exist in several Mexican integrated mills (Ahmsa and Sicartsa) that are scheduled for privatization under President Salinas' liberalization plans. It appears that such opportunities are not contingent on an FTA; however, liberalized access to the U.S. market may increase their attractiveness to foreign investors.

### Trade profile

The U.S. market is the largest for Mexico and Canada, accounting for 50 percent and 64 percent, respectively, of their exports in 1989. Mexico is a small supplier of steel to the United States, accounting for

<sup>144</sup> Integrated producers include those firms that make steel by processing iron ore and coal into finished products. They account for 70 to 75 percent of U.S. production. Nonintegrated producers, or "minimills," are generally smaller scale producers that produce steel in electric furnaces, using recycled scrap as their primary raw material.

<sup>145</sup> PaineWebber, *Structural Changes Intensifying*, June 1990.

<sup>146</sup> One firm, for example, recently expanded its product line with the opening of a flat-rolled sheet facility, a product that has traditionally been dominated by integrated producers. In addition, several minimills have indicated their intention to locate new facilities in the southern United States, a departure from the traditional concentration of facilities in the Mid-Atlantic and Great Lakes regions.

<sup>147</sup> The private minimill, D'Acero, upgraded its wire facilities and plans to build a new mill dedicated to structural products. In the state-owned sector, the Sicartsa mill is expanding its slab and plate capacity, much of which will be exported. (See *American Metal Market*, Nov. 23, 1987, and *Metal Bulletin*, Oct. 6, 1988.) Plans for modernization of other state-owned mills is uncertain, given that privatization of the mills is under way.

<sup>148</sup> American Iron and Steel Institute, *Annual Statistical Report*, and WEFA Group, *Steel Market Quarterly*, second quarter 1990.

<sup>149</sup> Staff discussions with Mexican industry officials, July 1990.

<sup>150</sup> WEFA Group, *Steel Market Quarterly*, second quarter 1990.

<sup>151</sup> The \$520 figure is a composite price, as calculated and published by *Iron Age*, November 1990.

<sup>152</sup> Staff discussions with U.S. industry officials, November 1990.

<sup>153</sup> In 1989 alone, eight major U.S. steel companies signed joint-venture agreements with foreign partners.

<sup>154</sup> Recently, partial ownership of the Mexican stainless producer Mexinox was purchased by two European firms, Thyssen (German) and Acerinox (Spanish).

2 percent of all U.S. steel imports, or 0.4 percent of apparent U.S. consumption, in 1989. In contrast, the EC supplied about 30 percent of U.S. steel imports; Japan, 25 percent; and Canada, 17 percent.

Mexican steel exports to the United States represented 15 percent of Mexican production in 1989. These exports consisted of a mix of low- and high-value products. Two-thirds of the shipments consisted of primary products, including tubular products, semifinished products, and sheet steels. The mix is comparable to that of other major suppliers, although the quality of products may vary.<sup>155</sup>

Mexican steel exports to the United States are subject to a VRA that has imposed a ceiling on the shipments since February 1985.<sup>156</sup> Recent negotiations have more than doubled Mexico's export quota, scheduled to expire in March 1992.<sup>157</sup> In return for agreeing to limit its exports, Mexico was granted a degree of protection from U.S. unfair trade laws while the VRA remained in effect. A number of antidumping and countervailing duty cases were terminated to bring the VRA into effect.<sup>158</sup>

Total U.S. steel exports have grown significantly in recent years, rising from 992,000 short tons in 1985 to almost 4.8 million short tons, or just over 2 percent of U.S. shipments, in 1989. About half the exports in recent years have been sent to Mexico and Canada; Mexico alone accounted for 15 percent of the total in 1989. U.S. exports to these two markets are concentrated in sheet and strip products for use in autos, appliances, and energy applications. U.S. exports to Mexico are likely to focus on products in which Mexican mills do not have sufficient production capability to meet local needs, particularly higher value items such as wide sheet steels with superior quality features. The modernization of U.S. steel facilities, coupled with cost reductions achieved in recent years, could well enhance the mills' competitive position as one of Mexico's largest suppliers in these products.

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<sup>155</sup> Sheet products are the largest export category for the other major suppliers, as opposed to the second largest in the case of Mexico.

<sup>156</sup> Although Mexico's VRA became effective in February 1985, the limit on its exports to the United States was retroactive to September 1984.

<sup>157</sup> From the September 1984 to 1989 period, Mexico agreed to limit its exports to 0.49 percent of U.S. apparent consumption (AC). Under the renewal agreement, Mexico is limited to 0.95 percent of AC in the initial period (October 1989 to December 1990) and 1.1 percent in the remainder (through March 1992).

<sup>158</sup> Cases involved Mexican structurals, plate, sheet, and pipe. See Congressional document WMCP 101-8, *Background Materials Relating to the Steel Voluntary Restraint Agreement (VRA) Program*.

## *Likely impact of the FTA with Mexico on the United States*

### **Impact on U.S. trade with Mexico.**

An FTA with Mexico that removes duties would likely result in a moderate short-term increase in both U.S. imports of Mexican steel and U.S. steel exports to Mexico.<sup>159</sup> The impact of an FTA is likely to differ by commodity. U.S. imports from Mexico that are currently subject to relatively high tariffs, such as stainless and tool steel, are likely to be affected by an FTA. However, the most significant increases in U.S. imports from Mexico are expected in more price-sensitive, but lower dutied, steel products for construction uses (e.g., wire products and structurals) and in certain tubular products. Termination of the VRA with Mexico under an FTA would have a relatively small effect on trade, given that the VRA program is scheduled to expire in March 1992.

The expected growth in U.S. exports to Mexico is likely to be concentrated in relatively high-value sheet products for use in autos and appliances and in non-flatrolled products such as bars, rods, shapes, and tubular products. The elimination of Mexican tariffs would enable U.S. producers to compete more effectively in Mexican markets across a range of products, an opportunity they appear prepared to pursue. Several U.S. minimill producers, for example, have indicated their intention to increase exports to Mexico in an effort to capture an increased share of the Mexican market in long products, if tariffs were removed.<sup>160</sup> Despite efficient, relatively low-cost operations, however, the likely extent of their success is not assured. Mexican minimills are reportedly competitive in many product areas and customer relationships are well-established.<sup>161</sup> Similarly, U.S. producers of tubular products have also indicated their intention to increase exports to the Mexican market if an FTA were concluded.<sup>162</sup> In the case of specialty steel, opportunities

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<sup>159</sup> The analysis assumes that rules of origin under an FTA with Mexico are similar to those under the United States-Canada FTA. In written submissions to the Commission from the American Wire Products Association, the American Iron and Steel Institute, and the Committee for Pipe & Tube Imports, concern was expressed about the potential for third-country transshipments of steel mill products, particularly wire and tubular products, through Mexico. With transshipment, third country products would undergo minor processing in Mexico and they would then be shipped to the U.S. market as a product of Mexico.

<sup>160</sup> Staff discussions with U.S. industry officials, November 1990.

<sup>161</sup> Staff discussions with U.S. and Mexican industry officials, July 1990.

<sup>162</sup> In a written submission from the Committee on Pipe and Tube Imports of Nov. 26, 1990, U.S. tubular producers expressed concern that preference will still be granted Mexican products purchased by state-owned PEMEX, a major consumer, despite the removal of formal "Buy Mexican" requirements.

to increase exports to Mexico are somewhat more limited as U.S. producers are already major foreign suppliers in Mexico and Mexican costs would continue to compare favorably even with the tariff elimination. Finally, major U.S. sheet producers indicate an interest in expanding sales of higher value sheet products. For these products, tariff concessions are viewed as an effective vehicle for improving their position relative to their primary competitors (i.e., other foreign producers).

In the long term, U.S. exports of most steel products to Mexico would likely experience significant growth under an FTA, on the assumption that an FTA would also stimulate demand for the goods by Mexico's steel-consuming industries such as construction, autos, and appliances. Despite the cost advantage of lower tariffs under an FTA, however, other foreign suppliers and upgraded Mexican mills are likely to continue to provide strong competition for U.S. steel exports in the Mexican market.

#### **Impact on U.S. trade with Canada and other countries**

An FTA with Mexico will likely have a negligible effect on U.S. trade with Canada and other countries, because the trade shifts that are likely to occur are relatively small when compared to total U.S. trade in those goods.

#### **Impact on U.S. industry, overall and by major regions**

Because steel exports to Mexico represent a small percentage of total industry shipments, it is anticipated that increases in U.S. exports under an FTA would have a negligible effect on production and employment in the U.S. steel industry both in the short and long term. On the import side, the most pronounced effects are expected to be in the southwestern, Gulf and California markets. However, these effects are still expected to be negligible, as any net increases in imports are likely to represent a relatively small share of U.S. production in the affected product categories.

### **Textiles and Apparel**

U.S. textile and apparel trade with Mexico has grown rapidly in recent years, with average annual growth of 19 and 25 percent being recorded in U.S. imports and exports, respectively, during 1985-89. This trade is concentrated in garments assembled in the maquiladora sector. The United States recently liberalized its quotas on imports of Mexican textiles and apparel, especially garments assembled with U.S. components, thereby spurring U.S. exports of garment parts to Mexico for assembly and subsequent return to the United States as finished garments. U.S. trade-weighted duties average 17 percent ad valorem

for apparel and 8 percent for textiles. However, because of the preponderance of U.S. components in garments from Mexico, the effective trade-weighted rate for apparel imports from Mexico is only 6 percent. Mexico's duties on textiles and apparel range from 12 to 18 percent for textiles and are 20 percent for apparel.

Assuming that rules of origin under an FTA with Mexico are similar to those under the United States-Canada FTA, the removal of duties and quotas on U.S. imports of textiles and apparel from Mexico would likely further the significant growth that has occurred recently in these shipments. The expected import increase resulting from an FTA would likely displace some U.S. production; however, the expected import growth would represent a negligible portion of U.S. production of textiles and apparel. The anticipated growth in imports from Mexico also would likely displace some third-country imports of lower cost apparel and other textile products, particularly those from the Caribbean Basin. U.S. exports of textiles and apparel to Mexico are also expected to continue their significant growth under an FTA, although the growth could diminish somewhat over the long term as the Mexican textile industry becomes more developed. These exports would largely be used by Mexico as inputs in the production of garments and other products that would be exported to the United States.

#### *Industry profile*

The U.S. textile mill industry, which produces yarns, fabrics, and other made-up goods, is ranked among the most productive and efficient textile producers in the world. Substantial investment has been made in equipment and technology in the past decade, resulting in a number of highly automated mills. The modernization program helped enable the industry to expand its shipments by 19 percent during 1985-89, to \$64 billion in 1989. However, the increased automation contributed to a decrease in employment.

The U.S. apparel industry, for which shipments also totaled an estimated \$64 billion in 1989, comprises a few large firms and many small and medium-size firms. As a whole, the industry has realized little growth in productivity; employment is declining and its share of the domestic market is falling. Apparel production is highly labor intensive. Consequently, a number of the larger U.S. producers have shifted varying portions of their production to low-labor-cost nations in an effort to enhance their competitive position in the market. Many smaller U.S. firms, unable to compete, have closed; others have moved into less import-sensitive niche markets.

Mexico's domestic textile and apparel industries are highly fragmented and use relatively little modern technology. In textiles, more so than in apparel, the level of technology directly affects the competitiveness of most products. The Mexican textile mill industry

suffers mainly from high production costs and low quality. The costs of textile mill production in Mexico are 25 to 150 percent higher than those in the United States.<sup>163</sup> These higher costs result largely from low-quality inputs, outdated technology, and capacity underutilization. Fabric finishing and dyeing, the weakest links in the Mexican textile value-added chain, limit the production of quality fabrics for export and for use in export-oriented apparel. The Mexican yarn-spinning and fabric-weaving sectors, however, are somewhat competitive in the U.S. market in a few products such as acrylic yarns and cotton sheeting.

Mexico's domestic apparel industry is competitive in production costs. Cutting and sewing operations in Mexico currently have a cost advantage over U.S. producers of 30 to 50 percent,<sup>164</sup> largely because of Mexico's relatively lower wage. However, the limited supply of locally produced quality fabrics and the lack of marketing expertise currently facing the industry inhibit its ability to export. Since Mexico began liberalizing barriers to imports several years ago, many of its domestic apparel and textile plants have reportedly closed because of their inability to compete with imports.<sup>165</sup>

Mexican production of textiles and apparel for export to the United States is concentrated in the maquiladora sector, and usually incorporates U.S.-supplied components, equipment, and managerial and marketing expertise. These operations will most likely remain the major source of U.S. imports from Mexico. However, an FTA would likely encourage increased integration between the domestic industry and the export-oriented firms.

### Trade profile

U.S. exports of textiles and apparel to Mexico consist largely of intermediate goods and apparel parts that are further processed or assembled in the maquiladora sector. In recent years, Mexico has significantly liberalized access to its market, reducing tariffs and eliminating its restrictive import-licensing requirements on most textile and apparel products. However, Mexico's internal market for the quality and variety of textiles and apparel produced in the United States is negligible because of the relatively low incomes of most Mexican consumers.

U.S. imports from Mexico mainly comprise reexports of apparel assembled with U.S. components. In

<sup>163</sup> Ovidio Botella, Enrique Garcia, and Jose Giral B., "The Mexican Perspective," U.S.-Mexican Industrial Integration: The Road to Free Trade, (HARC Center for Growth Studies), forthcoming.

<sup>164</sup> Ibid.

<sup>165</sup> Commission staff interview with Enrique Garcia, Director General of Texel, S.A., Mexico, Dec. 11, 1990. Also see Laura Carlson, "Coming Apart at the Seams," *Business Mexico*, December 1990, p. 54.

1989, 90 percent of U.S. apparel imports from Mexico, including brassieres, pants, shirts, underwear, and sleepwear, were dutiable under HTS subheading 9802.00.80. U.S. imports from domestic Mexican producers have been relatively small thus far, largely because of low product quality and an inability to meet production schedules. However, Mexican exports of some commodity textiles to the United States, such as acrylic yarn, polypropylene yarn,<sup>166</sup> denim, and cotton sheeting, are competitive and have grown significantly.

The United States liberalized its quotas on imports of Mexican textiles and apparel with the negotiation of a 4-year bilateral agreement that went into effect in 1988. The agreement, negotiated under the auspices of the Multifiber Arrangement (MFA),<sup>167</sup> increased Mexico's U.S. quotas significantly above the 1987 base levels to accommodate the "special regime" that was created for most apparel and selected made-up textiles from Mexico entered under HTS subheading 9802.00.80. Under the special regime, a significant portion of the quotas were, for the first time, set aside for articles assembled with U.S.-made and cut fabric.<sup>168</sup> In 1990, the United States further liberalized quotas on imports of these and other textile and apparel products from Mexico, eliminating restraints on a number of quota categories and increasing quotas on many of the remaining categories. USITC staff estimate that roughly one-half<sup>169</sup> of Mexico's textile and apparel exports to the United States, based on 1989 trade volume, are currently subject to specific limits (SLs) or designated consultation levels (DCLs).<sup>170</sup>

### Likely impact of the FTA with Mexico on the United States

#### Impact on U.S. trade with Mexico

It is likely that U.S. imports of textiles and apparel from Mexico would continue to increase significantly under an FTA. The elimination of U.S. duties and existing quotas would encourage additional investment in Mexican export-oriented production. This investment could come from U.S. firms wanting to increase their competitive position in the U.S. market, and from third-country producers whose current exports to the

<sup>166</sup> Interview with officials of Texcel, S.A. de C.V., and Pliana, Inc., on Dec. 11, 1990, in Mexico City.

<sup>167</sup> The MFA is an exception to the most-favored-nation principle of the General Agreement on Tariffs and Trade (GATT) in that it permits country-specific import restrictions on textiles and apparel of cotton, other vegetable fibers, wool, manmade fibers, and silk blends.

<sup>168</sup> The special regime is similar to, although not as liberal as, the guaranteed access program established in 1986 for CBERA beneficiary countries.

<sup>169</sup> Includes imports under the special regime subject to SLs or DCLs.

<sup>170</sup> In 1989, Mexico's U.S. quotas were binding on acrylic spun yarn, cotton sheeting fabric, underwear, trousers and slacks, and shirts and blouses.

United States are limited by quota and/or who may be facing rising production costs at home.<sup>171</sup>

U.S. exports of textile mill products to Mexico also would likely continue to increase significantly under an FTA. However, the growth could diminish somewhat over the longer term as the Mexican textile mill industry becomes more developed. A major portion of U.S. textile mill exports to Mexico in 1989 entered duty free under the maquiladora program. Mexican duties currently average 11.7 percent ad valorem on yarns and fabrics and 17.7 percent on other textile products; import licenses are required for a few types of yarn and fabric. Initially, an FTA would allow U.S. fabric producers to increase price competitiveness with Mexican and third-country producers in proportion to the duty reduction in Mexico.<sup>172</sup> However, in the longer term, the Mexican sector should become more competitive, and third-country suppliers may become more aggressive in the Mexican market. Most U.S. textile mill exports to Mexico would probably continue to be consumed by export-oriented apparel producers.

U.S. exports of finished apparel to Mexico are relatively insignificant. They are not expected to gain a large share of the Mexican market, because of Mexico's labor-cost advantage and because of limited incomes of most Mexican consumers.<sup>173</sup> U.S. exports of apparel parts to Mexico have increased by an estimated 25 percent a year since 1985 and are expected to continue their significant growth, given their role in supplying maquila operations producing for the U.S. market.

#### **Impact on U.S. trade with Canada and other countries**

The likely changes in U.S. textile and apparel trade with Mexico would have a negligible effect on U.S. trade with Canada. For the most part, U.S. trade with Canada consists of products not produced in Mexico. Caribbean Basin production for the U.S. market, in terms of costs and quality, and trade relationships are similar to those of Mexico. Under an FTA, it is therefore likely that U.S. and other foreign producers would

<sup>171</sup> However, the incentive to invest in Mexico could be reduced in the long term if an agreement is reached during the Uruguay Round to phase out all textile and apparel import regimes.

<sup>172</sup> The Government of Mexico (GOM) is currently conducting an antidumping investigation pursuant to its antidumping procedures concerning U.S. exports of denim fabric to Mexico. As of Jan. 18, 1991, the GOM had not reached a resolution in this matter. A decision imposing substantial duties in that investigation could adversely affect U.S. exports.

<sup>173</sup> Several reports indicate that Mexicans do prefer U.S. brands. An official at the Chamber of Commerce of McAllen, TX, estimated that 70 percent of local shopping mall sales were accounted for by Mexican citizens. U.S. producers have also reported significant orders for their products by Mexican retailers.

shift investment from the Caribbean to Mexico.<sup>174</sup> The ongoing shift in textile and apparel trade from Hong Kong, Korea, and Taiwan to nations with lower labor costs and fewer quota restrictions would also benefit Mexico under an FTA that eliminated duties and quotas on Mexican products.<sup>175</sup> However, Mexico's advantages under an FTA would be reduced somewhat if MFA quotas for all countries were to be phased out as currently proposed in the Uruguay Round negotiations.

#### **Impact on U.S. industry, overall and by major regions**

The expected growth in U.S. apparel imports from Mexico under an FTA would represent a negligible portion of U.S. domestic production of apparel. U.S. producers using Mexico as an assembly base would benefit from an FTA. Unrestricted market access and the integration of low-wage Mexican labor would allow these U.S. producers to increase their competitive position in the U.S. market. A loss of U.S. jobs would likely occur in the longer term as additional U.S. production moves across the border. Employment in cutting operations, a relatively capital intensive and skilled operation, would likely be retained or even increased in the United States, at least in the short to intermediate term. However, these operations provide relatively few jobs. Regionally, the impact would be concentrated in the Southern States, California, and New York, where most apparel is produced. The impact would be heightened in those regions where the proportion of apparel jobs to total manufacturing employment is high. In Puerto Rico, for example, roughly 20 percent of total manufacturing employment is in apparel compared with 5 percent for all of the United States. Alabama and Mississippi also have high concentrations of apparel employment, 16 and 15 percent, respectively.

The U.S. textile mill industry likely would realize increased exports to Mexico, at least in the short term. Domestic sales of fabrics would also increase as U.S. apparel producers expand their exports of cut apparel parts to Mexico. In the short term, an FTA may encourage some growth in U.S. and third-country investment in textile production along the U.S. side of the border to supply operations in Mexico.<sup>176</sup> An expected shift in some U.S. apparel imports from the Far East to

<sup>174</sup> U.S. trade in textiles and apparel with the Caribbean Basin countries also is largely conducted under HTS subheading 9802.00.80. Additionally, a number of U.S. firms have production in both Mexico and in the Caribbean.

<sup>175</sup> U.S. market share has increasingly been shifting from these Asian producers to relatively small, but rapidly growing suppliers such as Bangladesh, Indonesia, the United Arab Emirates, the Caribbean Basin nations, and Mexico.

<sup>176</sup> Reportedly, the proposal of increased access to the U.S. market has led to increased interest from potential Far Eastern investors. Several investors have shown interest in producing textile components in the United States and then assembling the finished products in Mexico.

Mexico under an FTA would benefit U.S. textile mills because Mexican apparel imports are more likely to incorporate U.S. components.

## Services

Services in Mexico and the United States generate a considerable portion of each nation's income, providing 57 percent of Mexico's and 67 percent of the United States' gross domestic product in 1989. The United States is Mexico's largest market for international services. Mexico, however, is a small market for U.S. services. The most recent, detailed data for services trade show that Mexico accounted for 2.7 percent (\$119 million) of the \$4.4 billion in U.S. sales of services worldwide and less than 0.1 percent of the \$3.7 billion in U.S. purchases of services in 1986.<sup>177</sup>

Tourism<sup>178</sup> is the service sector with the highest level of activity in Mexico, generating 50 to 60 percent of Mexico's services export receipts in 1987. While U.S. investors have participated in Mexico's tourism sector, barriers to entry exist in the transportation, telecommunication, banking, insurance, and construction sectors. These barriers have inhibited U.S. investment in these sectors where there is some potential for future growth.

The current low level of U.S. participation in Mexico is most likely the result of several structural and economic factors. International trade in services almost always requires providers to invest directly in the importing country, i.e., they must provide their services through local entities. Thus, foreign direct investment (FDI) is the most important factor for international trade in services. Historically, Mexico has reserved majority ownership of most service industries for its citizens, restricting opportunities for foreign service providers. In the past decade, Mexico's high rate of inflation, lack of investment capital, and high level of foreign debt have resulted in an economic environment not conducive to significant FDI for service industries. Finally, Mexico has an underdeveloped infrastructure in transportation, telecommunication, and computer systems that limits demand in Mexico for high technology services.

Mexico is making substantial progress revitalizing its economy including privatization of some government enterprises and liberalization of foreign investment laws. While these reforms are encouraging, factors such as a weak Mexican economy and an underdeveloped business infrastructure will still influence investment by U.S. service industries in Mexico. If an FTA results in Mexican reforms that allow foreign ma-

<sup>177</sup> U.S. Department of Commerce, Bureau of Economic Analysis, *Sales to Unaffiliated Foreigners*.

<sup>178</sup> While tourism dominates Mexico's services trade, non-tariff measures that impede the provision of tourism in Mexico have been identified. As a result, this sector is not examined in this report.

majority ownership in service industries, it is likely that foreign investment and trade in services would increase significantly above present levels in the medium to long term. Brief profiles of the service sectors most likely to be affected are presented below. The trade benefits ceded to the United States, Mexico, and Canada as a regional trading block in services are likely to be negligible as the combined United States and Canadian market is 20 times greater than the Mexican services market.

## Banking

U.S. and Mexican industry sources state that the relative importance of banking services in Mexico will likely increase as its banking system becomes more competitive and efficient through privatization and other measures. The financial services share of Mexico's GDP in 1989 averaged 3.26 percent, up significantly from 1.85 percent in 1983, 1 year after the Mexican Government nationalized the banks. This growth stemmed primarily from Mexico's progress in revitalizing the financial services industry through privatizing banks, liberalizing foreign investment laws, and restructuring foreign debt. If U.S. banks are allowed to offer a full range of financial services and products directly in the Mexican market, there could be a moderately positive impact on U.S. banking services exports to Mexico in the long term. However, U.S. banks are currently consolidating their international operations in response to large outstanding loans and higher capital requirements which will weaken their ability to enter the Mexican market. Furthermore, even if U.S. banks make substantial investments in Mexico, the impact on U.S. banking revenues and the economic impact on industry would be negligible given the small size of the Mexican market.

## Industry profile

Mexican banks were nationalized in 1982,<sup>179</sup> and U.S. and foreign banks were permitted to maintain only representational offices. This prohibited foreign banks from taking deposits or making loans in Mexico and from competitively providing a full range of financial services and products directly to Mexican individuals and entities. Representational offices of foreign banks in Mexico served primarily to facilitate the introduction of banking services that can be obtained outside of Mexico from foreign banks.<sup>180</sup>

<sup>179</sup> At that time, only one U.S. bank, Citibank, was grandfathered under Mexican law and allowed to operate in Mexico as a privately owned, foreign commercial bank. Due to its long presence in Mexico, Citibank was allowed to continue operating in Mexico, but nevertheless has been limited to its existing network of five branch offices and has been restricted in introducing new financial products and services since 1982 as compared to the nationalized Mexican banks. Citibank is the only foreign bank with a government charter that allows it to accept branch deposits.

<sup>180</sup> At the end of 1989, 27 U.S. banks and 60 other foreign banks maintained representational offices in Mexico.

Mexico has recently made numerous changes to its banking and financial laws and regulations. In December 1989, the Mexican Government published new regulations that opened state banks to foreign and domestic participation.<sup>181</sup> In January 1990, it took the significant step of changing its Constitution to permit privatization of its banks. Mexico is now in the process of implementing legislation that would significantly change its present banking system. In August 1990, the Mexican Finance Minister announced the formation of a committee to oversee the sale of most of Mexico's 18 commercial banks that had been under majority ownership by the Mexican Government since 1982.<sup>182</sup> The Government plans to sell its 66-percent stake in each of the banks through public auctions and offering share packages on the stock exchange. Mexican investors will continue to hold controlling interest; direct or indirect foreign participation will be limited to a 5-percent ownership level. Although the Mexican Government's divestiture of the banks and change in ownership laws are considered to be a significant step towards liberalizing its banking system, U.S. industry sources indicate that the ability of foreign banks to establish and maintain operations—and provide capital to Mexican and foreign business for investment in Mexico—will continue to be restricted unless all barriers to entry are removed.

### Trade profile

The enormous Mexican debt is a significant deterrent to further direct Mexican investment by U.S. banks. Under a plan formulated by U.S. Treasury Secretary Brady, a number of U.S. and other foreign bankers agreed to a debt reduction plan with Mexico last year. Nevertheless, these bankers remain somewhat concerned about Mexico's ability to repay its outstanding loans of over \$50 billion.<sup>183</sup>

Another significant deterrent is the enormous amount of investment capital deposited by Mexican na-

tionals in foreign institutions and investments overseas, including those in the United States. At the end of 1987, Mexican assets held abroad were estimated to be \$84 billion. There is little indication thus far that much of this investment capital is returning to Mexico, although some Mexican investors are expressing interest in returning some funds and investing in banks and other industries in light of the nation's current economic reforms.

### Likely impact of the FTA with Mexico on the United States

#### *Impact on U.S. trade with Mexico*

If an FTA were concluded, most U.S. banks would likely concentrate on expanding their presence in Mexico by developing commercial banking relations with privatized Mexican banks and corporate entities. This is due to the relatively high cost of developing retail operations to serve individual consumers. Commercial banking generally requires less capital investment and a smaller staff than retail banking.

Several major money center banks and banks located primarily in the border region indicate that an FTA would result in expansion of their network of retail operations into Mexico. The cost of opening new branches along the border would be relatively low given their established core operations close to Mexico. In the long term, an FTA may encourage privatized Mexican banks to open branch offices in the United States along the border.

#### *Impact on U.S. trade with Canada and other countries*

An FTA with Mexico would have a negligible trade diversion impact on U.S. trade with Canada in banking and on U.S. banking trade with other countries. U.S. banks in general have had long-established extensive worldwide operations. However, Canadian and U.S. banking sources state that the implementation of a trilateral FTA would result in some increased activity by Canadian banks in Mexico. Industry sources indicate that most Canadian banks, like their U.S. counterparts, would also tend to concentrate on developing a commercial banking business. Four major Canadian banks currently have representational offices in Mexico.

#### *Impact on U.S. industry*

Although an FTA would have a negligible beneficial impact for some U.S. banks, particularly those located near the border with Mexico, it would likely have a limited effect on their total international operations. However, some industry representatives have noted that, in the long run, an FTA may offer an additional benefit because they may be able to expand their banking services to other Latin American countries through their Mexican operations.

<sup>181</sup> Foreign investors are now able to obtain up to 34-percent ownership through new nonvoting "C" shares or certificados de aportacion patrimonial (CAPs). The government will retain 66-percent voting control through "A" shares, while private Mexican investors can continue to own up to 34-percent through "B" shares. Under the revised banking regulations, the maximum capital in the forms of CAPs allowed to any individual is being raised from 1 to 5 percent. See Decree by which Several Provisions of the Regulatory Law of Banking and Credit Public Service are Amended, Enlarged and Revoked, published in the Diario Oficial on Dec. 27, 1989.

<sup>182</sup> Of the 18 commercial banks with Mexican Government majority ownership, 3 of them—Banamex, Bancomer and Serfin account for 80 percent of Mexican banks' total assets.

<sup>183</sup> The Mexican Government was one of the first less developed countries to sign a formal debt reduction agreement under a plan developed by U.S. Treasury Secretary Nicholas Brady in February 1990 with U.S. and other foreign banks. Mexico's total external debts with all U.S. and other foreign lenders was over \$90 billion during 1990.

## Construction and Engineering Services

Construction and engineering services currently play a minimal role in United States-Mexican trade. U.S. firms engaged in construction, engineering, architectural, and mining services earned approximately \$2 million for services rendered in Mexico in 1989. Their Mexican counterparts did about \$3 million worth of business in the United States that year. The U.S. Department of Commerce estimates that new construction put-in-place in the United States in 1989 totaled approximately \$432 billion.

The likely impact of removal of trade barriers in the construction and engineering service sectors is expected to be negligible for U.S. trade with Mexico. Additionally, U.S. trade with Canada and other countries should not be negatively affected, nor should the U.S. industry.

### Industry profile

The number of U.S. firms in overseas construction and engineering markets has decreased considerably over the past 20 years. However, U.S. firms historically have been competitive and successful in winning bids for complex projects where quality of design, construction, and construction management are the primary concerns. Examples of such projects are petrochemical and petroleum refineries.

In 1989, the new Mexican Government administration initiated a program to revitalize the construction industry by privatizing most, if not all, of the sectors within this industry. Comercio Internacional Banamex, a leading Mexican bank, estimates that construction services account for about 5 percent of Mexico's GDP. This figure is above the average for developing countries and slightly below that for developed countries.<sup>184</sup> About 80 percent of the Mexican construction market is controlled by the five largest firms.

U.S. and Mexican business representatives indicate that construction opportunities in Mexico currently abound in the airport, highway, port, and tourism areas. Mexican law states that the federal government and state-owned enterprises must conduct an open bidding process for contracts concerning purchases, leases, and the provision of services connected with goods. However, the Mexican Government shields Mexican firms from direct foreign competition through a law that gives preference to Mexican providers of goods and services in order to promote national development. As a result, with very few exceptions, U.S. and other foreign construction firms do not operate in Mexico.

<sup>184</sup> According to the U.S. Department of Commerce, the value of construction put-in-place as a percentage of GDP for Mexico in 1986 was 8.0 percent; for the United States this figure was 9.2 percent and Canada registered 7.4 percent. The U.S. rate has likely fallen in recent years as 1986 was a peak year for construction in the United States.

### Trade profile

U.S. construction and engineering firms are faced with barriers in Mexico, including heavy regulation and protection of these sectors by the government, and Mexican regulations stating that firms who wish to do business on a regular basis must enter into joint ventures with Mexican firms. In addition, foreign-trained and registered engineers may only practice in Mexico in a joint venture situation, and only if they are highly specialized, technical, or administrative personnel. The number of such foreign personnel must not exceed 49 percent of the total technical staff.

Obstacles that Mexican construction and engineering firms face in the United States include a requirement that both foreign and U.S. construction firms post a bond worth over 100 percent of the construction value for all public and most private projects.<sup>185</sup> Mexican firms also cite U.S. professional requirements for foreign engineers working in the United States as a barrier to trade in these services.<sup>186</sup> Mexican construction sources cite bidding preference statutes and reciprocal preference laws in certain States, tax and environmental issues, and equipment purchasing requirements as additional barriers to participating in the U.S. construction market.

The issue of free labor flows is likely to be important to this sector. Mexico takes the position that the free movement of labor is important for all services sectors, including construction. More specifically, Mexico believes that day laborers should be able to cross the border each day to engage in construction work. If such movement of labor is permitted under an FTA, then both U.S. and Mexican construction firms working in the United States near the border with Mexico could benefit from generally lower cost Mexican workers. This, in turn, could depress wages and could cause the loss of jobs of U.S. construction workers along the border.

### Likely impact of the FTA with Mexico on the United States

#### *Impact on U.S. Trade With Mexico*

Assuming that all nontariff barriers to construction and engineering services between the United States and Mexico are removed, U.S. firms could increase their

<sup>185</sup> U.S. bonding firms find foreign firms to be a risky investment, because their assets cannot readily be attached in the case of a default; thus, these firms generally must post this bond from their own funds. For Mexican firms, expenditures of this magnitude are onerous. This requirement is not intended to be a barrier to access, and is not directed specifically at Mexico.

<sup>186</sup> The U.S. National Council of Examiners for Engineering and Surveying reports that the establishment and revision of these requirements are the responsibility of the States; it is not within the jurisdiction of the Federal Government to change mandatory professional qualifications in individual States. However, the Federal Government may negotiate a trade agreement on behalf of the industry.

earnings significantly compared with past earnings in this market. Although U.S. firms would gain entry into a market where they were historically denied access, U.S. firms would remain at a disadvantage in competing for projects that are labor intensive because local labor costs are considerably lower.<sup>187</sup> However, if U.S. firms are able to increase their market presence once barriers are lifted, they will have a competitive advantage over many Mexican firms because of the highly skilled professionals and advanced engineering techniques they possess.

#### *Impact on U.S. Trade with Canada and other countries*

An FTA with Mexico would likely have a negligible effect on U.S. trade with Canada in construction and engineering services. Canada is a leading trading partner of the United States in construction and engineering services. According to U.S. Department of Commerce data, U.S. firms captured almost half the \$6.5 billion in foreign awards granted in the Canadian construction market in 1988, the largest share awarded. Commerce data also show that the top international U.S. design firms earned 83 percent of the foreign billings in Canada and that Canadian firms captured 62 percent of those in the United States. There is no indication that, in the short to mid-term, Mexican construction and engineering firms are positioned to enter the Canadian market to the detriment of U.S. firms. Nor is such competition expected to impact U.S. firms in other countries.

#### *Impact on U.S. industry*

The likely impact of an FTA on U.S. exports of the construction sector to Mexico would be negligible. As the Mexican construction market is less than 5 percent of its U.S. counterpart, gained earnings as a result of a free trade agreement could only be minimal when compared with domestic earnings. Any contracts awarded to Mexican firms are expected to be confined, as in the past, to the border region. Historically, U.S. contracts awarded to Mexican firms have mostly been for lower technology projects in Texas and California. While Mexican firms can offer lower bids by doing the engineering for a project in Mexico, the Mexican industry lacks the capacity and technology to significantly penetrate the U.S. market.

#### *Insurance*

A strong potential exists for future growth in the Mexican insurance industry. While this industry is currently undercapitalized, there is strong demand in the

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<sup>187</sup> The U.S. Department of Commerce has assessed that U.S. construction firms have little hope of winning contracts for foreign projects that are labor intensive, especially where local labor is cheap and available.

domestic market, which has been enhanced by recent reforms. The Mexican insurance sector has been effectively closed to foreign investment since 1935. Despite a new insurance law aimed at revitalizing the market via privatization and increased competition, the Mexican insurance sector remains underdeveloped, both in terms of premiums per capita, and premiums per share of GDP. Many U.S. insurance analysts consider that the new law is unlikely in the near term to attract sufficient non-Mexican equity participation to improve the undercapitalized, technologically weak, and relatively inefficient insurance market.

If an FTA removes existing Mexican NTBs, particularly those limiting non-Mexican firms to 49-percent equity participation in the Mexican market, U.S. investment in the Mexican insurance sector would likely increase significantly and, in turn, would likely lead to a moderate increase in U.S. exports of insurance services. Mexico's exports of insurance to the United States currently are largely in the form of reinsurance;<sup>188</sup> more of these risks would likely be retained in Mexico by stronger, larger, Mexican-incorporated firms that would likely result from an FTA.

#### *Industry profile*

Mexican insurance companies tend to be small with limited capital bases and reserves, and many simply reinsure almost all their business. While this is something of a "money machine" for the local company (which retains a portion of the premium while assuming almost no risk), such practices are inefficient and raise insurance prices. Moreover, private Mexican companies have been shielded from foreign competition by Mexican laws and regulations and a large amount of business has been restricted to inefficient government-owned companies.

The domestic insurance industry in Mexico comprises 39 firms, 2 of which are currently government-owned but are to be privatized.<sup>189</sup> The market is highly concentrated: seven companies, including both state-owned firms, control 80 percent of underwriting. U.S. and Mexican industry analysts believe that the number of Mexican firms will decrease in the near future, as the government increases the capitalization requirements for insurers. In contrast, the United States has more than 5,500 firms operating in a highly competitive market. Total premium volume of the Mexican insurance market is approximately \$2.3 billion, or just over 1 percent of Mexico's GDP. This compares with a U.S. market of roughly \$431 billion, or about 9 percent of U.S. GDP.

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<sup>188</sup> Reinsurance is the assumption by one insurance company of all or part of a risk undertaken by another insurance company, i.e., a method of further spreading risks.

<sup>189</sup> The government-owned firms insure all government property and employees.

## Trade profile

U.S. trade and investment with Mexico in insurance is currently small. This is due primarily to Mexican restrictions on the establishment of foreign firms in Mexico and restrictions on Mexican firms that limit or prohibit their buying of insurance outside of Mexico. At least four major nontariff barriers affect U.S./Mexican insurance trade. The most significant barrier is the limitation to only 15 percent equity for U.S. firms in joint ventures with a Mexican firm.<sup>190</sup> The second nontariff barrier is that Mexican insurers are required to place at least 50 percent of their reinsurance in Mexico. This denies U.S. reinsurers business that would tend to flow towards the United States to take advantage of the greater efficiency and lower premiums in U.S. reinsurance markets. Thirdly, Mexican law requires that import and export insurance (e.g., marine insurance) purchased by Mexican buyers or sellers of all shipped goods be placed in Mexico. Fourthly, both U.S. and Mexican motor vehicle travelers crossing the border are often not covered by vehicular insurance for any losses or damages incurred. This has allowed small, inefficient providers of auto insurance to exist at border crossings in order to sell temporary policies that may not provide the coverage requested, and has caused considerable difficulties for both countries in terms of legal, diplomatic and public relations problems.<sup>191</sup>

The United States has no barriers to the entry of Mexican firms, provided these firms meet the State-by-State licensing and capitalization conditions required of all applicants.<sup>192</sup>

## Likely impact of an FTA on the United States

### *Impact on U.S. trade with Mexico*

Many analysts believe that an FTA that mandated changes in Mexican insurance law to remove the nontariff barriers described above would likely result in a significant increase in investment by U.S. firms—through both the formation of wholly owned subsidiaries (if permitted by Mexico) and joint ven-

<sup>190</sup> Dating back to changes in Mexican law in 1935, the only way foreign firms were able to enter the market was by limiting investment to not more than 15 percent of the equity in joint ventures. Foreign firms established before 1935 were required to reduce their equity holdings below 50 percent.

<sup>191</sup> Mexico has expressed an interest in resolving this problem as it adversely affects the nation's important tourist industry. Indeed, U.S. and Mexican insurance officials have already held a series of meetings during 1990 to seek resolution of these matters.

<sup>192</sup> Reportedly, three Mexican firms have representative offices in the State of New York that serve as information, research, and referral centers. They do not underwrite insurance and have not applied for U.S. licenses. Only one of them has "registered" with the New York Superintendent of Insurance. Such registration entails a recognition of presence, and a pledge not to underwrite insurance or advertise services.

tures. At the same time, an FTA would result in a significant shakeout in the current, inefficient Mexican insurance sector because historically it has been protected from competition and because the U.S. industry is mature, highly competitive, and technologically strong. Several U.S. firms have indicated interest in the Mexican market: eight U.S. insurers participated in a trade mission sponsored by the U.S. Department of Commerce in Mexico in June 1990.<sup>193</sup> U.S. insurance firms would also benefit from an FTA eliminating the Mexican law requiring import and export insurance be placed in Mexico. U.S. firms would be likely to gain at least a certain portion of such cargo insurance currently monopolized by Mexican firms.

### *Impact on U.S. trade with Canada and other countries*

The impact of an FTA with Mexico on United States-Canadian insurance trade would be negligible as the U.S. and Canadian markets are already intertwined to a significant degree. No Mexican insurance firms appear capable of competing with U.S. insurers in the Canadian market. The growth in demand for insurance within Mexico that would likely result from an FTA, however, may increase the amounts of insurance ceded to U.S. and foreign markets.

### *Impact on U.S. industry*

The expected increase in U.S. exports of insurance to Mexico and the anticipated increase in U.S. participation in Mexican insurance markets would likely increase U.S. insurance sales. However, an FTA would be unlikely to have any appreciable impact on job creation or employment conditions in the United States. Insurance is increasingly automated and, except for sales forces, the number of employees is declining.

An FTA likely would have both a regional and a national impact. For some types of insurance, particularly "personal lines" such as automobile coverage and homeowners' fire protection, the U.S. firms would likely gain market share along the U.S.-Mexican border. Distribution of personal lines of insurance requires cultural understanding and local language ability for

<sup>193</sup> Indeed, since the time of the enactment of the Mexican Government's general investment liberalization measures in 1988-88, foreign companies have been expressing increasing interest in the Mexican insurance market. Among U.S. insurers active in Mexico, both the American International Group (AIG) and Cigna were incorporated prior to 1935, and have retained their (49 percent equity) presence there. The U.S. subsidiary of Commercial Union (United Kingdom) is also active and a fourth U.S. company reportedly is in final negotiations to purchase up to 49 percent of another Mexican insurer (October 1990). Generali (Italy), Munich Re (Germany), Mapre (Spain) and Ras/Allianz (Italy/Germany) are other companies now competing (as minority shareholders) in the Mexican market.

both the marketing and servicing of policies; hence, regional firms along the border might have greater motivation and skills for entering these markets. For property and casualty lines for commercial coverage, and for life insurance, however, large U.S. firms would have the economies of scale, financing, and marketing capabilities to compete successfully throughout North America.

### *Telecommunication and Information Services*

The growth and competitiveness of the Mexican telecommunication and information services industry have been constrained in the past by an outdated infrastructure and restrictive regulations. This situation is expected to change in the near future with the privatization of the Mexican telecommunication authority, Telefonos de Mexico (TELMEX) announced on December 9, 1990.<sup>194</sup>

Currently, foreigners can own up to 49-percent equity of a Mexican telecommunication services provider. Assuming an FTA removes this equity restriction, U.S. firms are more likely to invest in this sector because they would be able to obtain majority control of their investments. Expanded foreign investment is a virtual precondition for expanded foreign sales of telecommunication services in Mexico. Furthermore, an FTA would complement the changes resulting from the privatization of TELMEX and would likely encourage a significant increase in exports of U.S. information and data processing based services. On the other hand, since the Mexican telecommunication sector is undeveloped as compared to the United States, the effects of a FTA on Mexican investment in the United States would be negligible. The effect of an FTA on the U.S. telecommunication and information services industry as a whole would also be negligible.

### **Industry profile**

The U.S. telecommunication services industry is one of the largest in the world, generating an estimated \$170 billion in revenues in 1989.<sup>195</sup> In contrast, TELMEX had revenues of about \$2.2 billion in 1989 with over \$773 million in profits.<sup>196</sup> Based on Mexico's telephone density of 4.9 lines per 100 people, compared with 48 per 100 in the United States,<sup>197</sup> the cost

of upgrading and expanding telephone service in Mexico is estimated at \$14 billion.<sup>198</sup> The Government has also taken additional steps to encourage the private sector: a decree of December 22, 1989 required TELMEX to interconnect to their network all Government-approved equipment bought or leased from third parties.<sup>199</sup> Such liberalization measures will enable U.S. companies to provide information services and establish private networks.

During 1989, the Mexican Government reorganized the Secretariat of Communications and Transportation (SCT) to create one parastatal enterprise (TELECOM) which combines the following services: TELENALES, the national telex network; TELEPAC, the packet-switched data network; SERTEL, the airline reservations services network; and INFONET, an electronic mail provider. In the future, it is expected these services will be privatized to allow SCT to become primarily a regulatory agency, rather than a telecommunication services provider.

In March 1990, cellular services licenses were awarded for eight regional cellular networks to consortiums that include eight U.S. companies. Because of the lack of a land-based telecommunications infrastructure, this type of communications system is likely to be less costly and quicker to put in place because it delivers telecommunication services by radio frequency, not by copper or fiber optic cable. In the next few years, the Mexican market for cellular service is expected to grow to 400,000 subscribers and reach an estimated size of \$600 million.<sup>200</sup>

In 1989, the U.S. information services industry had domestic revenues of \$74 billion.<sup>201</sup> The Mexican information services industry, in comparison, is relatively small and the latest figures show revenues of \$130 million in 1987.<sup>202</sup> Software and data communication services are two information service sectors that are relatively undeveloped and would have a large growth potential in Mexico under an FTA. Domestic software sales in Mexico increased at an average rate of 26 percent annually from \$59 million to \$117 million between the years 1984 to 1988 with imports representing 72 percent of total sales. Of this amount, the United States had a 90-percent share of the import market.<sup>203</sup>

<sup>194</sup> U.S. Department of Commerce Telegram, September 1989, Mexico, Message Reference No. 4898.

<sup>195</sup> Revenue data derived from U.S. Department of Commerce, "Telecommunications Services," *U.S. Industrial Outlook* 1990, p. 31-1.

<sup>196</sup> Robert Graham, "Mexico Sell Telmex Stake for 1.76bn," *Financial Times (London)*, Dec. 11, 1990, p. 1.

<sup>197</sup> American Telephone and Telegraph, *The World's Telephones—A Statistical Compilation as of January 1987-88*, 1989, p. 17.

<sup>198</sup> Norman C. Lerner, "Mexico's Development Dilemma," *Telephony*, Apr. 24, 1989, p. 31.

<sup>199</sup> U.S. Department of Commerce Telegram, February 1990, Mexico, Message Reference No. 12356.

<sup>200</sup> Mike Zellner, "New Tone for Telmex," *Business Mexico*, June 1989, p. 46.

<sup>201</sup> Receipts estimates are derived from U.S. Department of Commerce, Bureau of the Census, *1989 Service Annual Survey*, October 1990.

<sup>202</sup> Robert Schware, *The World Software Industry and Software Engineering*, World Bank Technical Paper 104, 1989, p. 32.

<sup>203</sup> Luis Rubio, Edna Jaime, and Alberto Diaz, "Mexican Trade in Services: Challenges and Perspectives," Comercio Internacional Banamex, 1990.

## Trade profile

Most of the trade<sup>204</sup> between Mexico and the United States and between Mexico and Canada is in the form of basic telephone services. Basic telephone services trade is governed by a series of bilateral operating agreements between countries. The United States posted a \$406 million trade deficit in basic telephone service with Mexico in 1988.<sup>205</sup> The United States incurred a deficit in basic telephone services because the volume of calls originating from the United States is greater than it is from Mexico and local telephone service in Mexico is subsidized by long distance service. Thus, the cost of making a long distance call in Mexico is much more expensive than it is in the United States.

A major U.S. barrier to Mexican entry into the U.S. telecommunication services market is U.S. Federal law that denies licenses to foreign service providers that use radio wave transmission—including any foreign governments, corporations, or aliens, as well as U.S. corporations where more than 20 percent of the corporation is owned by a foreign firm or more than 25 percent of its parent company is owned by aliens.<sup>206</sup> Since most telecommunications networks use microwave or radio frequency communications, this law effectively prohibits foreign services providers from owning most U.S. telecommunications networks. Any foreign service provider may, however, supply telecommunication services by cable or leased lines.

The U.S. information services industry in 1989 posted a total worldwide trade surplus of \$1.2 billion, based on exports of over \$1.3 billion and imports of \$89 million.<sup>207</sup> In comparison, U.S. trade in information services with Mexico was small. It was marked by a trade surplus of \$16.5 million, based on U.S. exports of \$17 million and imports of less than \$500,000.<sup>208</sup>

A significant recent development increasing U.S. interest in the Mexican telecommunications market is the TELMEX privatization. On December 9, 1990, the Mexican Government announced it would sell control of TELMEX for \$1.76 billion to the consortium made up of Southwestern Bell, France Telecom, and Group Carso. Included in this sales price is an option for

<sup>204</sup> In telecommunications, the exchange of basic voice services is not considered trade in the traditional sense. The more important issue is "trade" via investment in network infrastructure and through the provision of non-voice, value-added services.

<sup>205</sup> On the basis of an interview by USITC staff with officials of the U.S. Federal Communications Commission, Sept. 11, 1990, telephone service from the United States to Mexico (imports) cost \$639 million and service from Mexico to the United States (exports) cost \$233 million.

<sup>206</sup> Section 310 (a) and (b) of the Communications Act of 1934, 47 U.S.C. 310. The law is based primarily on national security reasons and, of course, is not directed specifically at Mexico.

<sup>207</sup> U.S. Department of Commerce, Bureau of Economic Affairs, "U.S. International Sales and Purchases of Services," Survey of Current Business, September 1990, pp. 64-65.

<sup>208</sup> *Ibid.*

Southwestern Bell to buy another 5-percent stake in TELMEX from the Mexican Government that has no voting rights.<sup>209</sup> Over the next 5 years, the consortium is committed to investing up to \$10 billion in TELMEX, including doubling the number of phone lines to 10 million and reducing the installation time from 18 to 6 months.<sup>210</sup>

## Likely impact of the FTA with Mexico on the United States

### *Impact on U.S. trade with Mexico*

If an FTA removes the 49-percent foreign ownership restriction, U.S. telecommunication service providers will likely increase their investment for additional cellular licenses because they could obtain majority control. Assuming an FTA will permit U.S. firms to set up more operations in Mexico, the rising volume of calls from the United States to Mexico will likely widen the trade deficit in U.S. telephone service. In the long term, improvements in the network will greatly reduce the cost of calling from Mexico to the United States, which will further increase the volume of calls to the United States and likely decrease the deficit. However, the privatization of TELMEX and other reforms that are already being undertaken should serve to expand the Mexican market for telecommunication and information services and improve the opportunities for participation by U.S. firms in Mexico.

Moreover, if an FTA mandates previously promised Mexican legislative changes in intellectual property rights, U.S. investment in Mexico should increase in the areas of data processing and information services.<sup>211</sup> The creation and enforcement of intellectual property rights arising from an FTA should also significantly expand U.S. exports of software to Mexico.

### *Impact on U.S. trade with Canada and Other Countries*

An FTA with Mexico should have a negligible impact on U.S. trade with Canada and other countries, because current trade in basic telephone service (which accounts for the bulk of the revenues) is conducted bilaterally.

### *Impact on U.S. industry*

The overall impact of an FTA with Mexico on the U.S. telecommunication and information services in-

<sup>209</sup> Since the regional Bell operating companies are barred from providing long distance service under the terms of the Modified Final Judgment order that broke up AT&T, Judge Harold Greene granted Southwestern Bell a waiver to provide international long distance for the purpose of this acquisition.

<sup>210</sup> Keith Bradsher, "Group Will Buy Mexico's Phone Company," *New York Times*, Dec. 9, 1990, p. D1.

<sup>211</sup> U.S. Department of Commerce Telegram, October 1990, Mexico, Message Reference No. 29694.

dustry would be negligible. This is because the Mexican telecommunication sector is underdeveloped and the U.S. sector is one of the largest and most advanced in the world. An FTA would have no major effects in the United States, because U.S. long distance telephone service is provided on a decentralized basis by AT&T, MCI, and US Sprint. However, analysts believe that the purchase of TELMEX will offer Southwestern Bell long-term growth prospects because its regional territory, which includes Texas, borders on Mexico. Because most information services use the telecommunications network as a means of transport, there will be no regional impact resulting from an increase in such services.

### *Transportation Services*

Trucking services between Mexico and the United States represent the largest portion of trade in transportation services: 82 percent of freight in Mexico is moved by road, and most freight traffic between the United States and Mexico also moves by truck.<sup>212</sup> Trade in services in all transportation sectors between the United States and Mexico is limited in scope because of numerous NTBs. However, an FTA with Mexico would have the most effect on the motor carrier industry, as trucks carry most domestic cargo in Mexico, as well as most cargo that moves between the United States and Mexico. Although the Mexican motor carrier industry has been deregulated recently, the remaining NTBs still cause significant border delays and inefficiencies.

### **Industry profile**

Primary transportation services in Mexico include motor carriers, the railroads, maritime transport, and air passenger and cargo services. The Mexican railroad network is government-owned and run, and carries a small share of current freight traffic. Both the United States and Mexico maintain cabotage laws, such as the Jones Act (U.S.), which prohibit a foreign air or ocean carrier from transporting persons or cargo between domestic destinations. Trucking is somewhat less restricted. Both the United States and Mexico currently permit free entry into trucking in the international commercial border zones (those areas which serve the maquiladoras). However, commercial trucking in either country by nationals of the other country is still limited by NTBs. For example, Mexican commercial drivers' licenses are federal licenses—issued only to Mexican nationals—thus effectively restricting commercial use of public roads in Mexico by U.S. truckers. Other transportation services, such as maritime transport and

<sup>212</sup> USITC, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects*, USITC Publication 2275, April 1990, p. 3-2.

air cargo services, play a more minor role in cargo trade between the United States and Mexico. Air passenger services are governed by bilateral and multilateral agreements.

### **Trade profile**

The current volume of trade in transportation services between the two countries is fairly limited, because exporters/importers in both countries use carriers that are nationals of their own country for cargo services between the United States and Mexico.

### **Likely impact of the FTA with Mexico on the United States**

#### *Impact on U.S. Trade with Mexico*

Assuming an FTA with Mexico removes barriers to trade in transportation services, the motor carrier industry is the transportation sector most likely to be affected. U.S. imports of trucking services from Mexico under an FTA would most likely increase significantly, primarily as a result of pronounced wage differentials between Mexican and United States workers. However, the overall effect on imports of transportation services would be moderate. U.S. exports of trucking services to Mexico, however, would not be likely to increase due to the poor condition and considerably smaller size of the Mexican highway system. In addition, U.S. Federal regulations require all motor carriers operating in the United States to adhere to U.S. safety standards. Mexican motor carriers operating in certain areas of the United States are exempted from this regulation.<sup>213</sup> If this remains the case, an FTA would most likely expand opportunities for Mexican firms in areas of the U.S. market where U.S. firms are already operating at a regulatory disadvantage.

Other transportation services, including rail, maritime transport, and air passenger and cargo services, would be only marginally affected by an FTA. Although an FTA would remove barriers that restrict private-firm participation in the Mexican railroad industry, this would have negligible impact on the U.S. industry. Liberalization of rail transport is not regarded as an issue; rail carries only a minor portion of freight traffic and U.S. firms (which have streamlined their own operations) are not likely to expand into the Mexican market.

Given the present small size and relatively inefficient nature of the Mexican maritime industry, some industry experts predict that trade liberalization would have an overall negative effect on Mexican providers of these services.<sup>214</sup> However, the U.S. maritime in-

<sup>213</sup> USITC, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects*, USITC Publication 2275, April 1990, p. 3-2.

<sup>214</sup> Luis Rubio, Edna Jaime, and Alberto Diaz, "Mexican Trade in Services: Challenges and Perspectives," Comercio Internacional Banamex, 1990, p. 23.

dustry could be harmed if wage and cost differentials between U.S. and Mexican maritime service providers cause Mexican carriers to be less costly compared to U.S. providers on short routes near the border, such as in Texas and California. Thus, there could be localized significant adverse impact on the U.S. industry.

Air transportation is governed by a number of bilateral and multilateral agreements that would be affected only in a limited way by an FTA with Mexico. It is expected that an FTA would result in competitive pressures on Mexican carriers from U.S. regional carriers in the more profitable Mexican air corridors. Similarly, Mexican carriers could press for access to U.S. landing corridors that could impact a U.S. industry. Because the U.S. industry is much better capitalized and well-established, it is likely that an FTA would result in some beneficial impact for the U.S. airline industry.

#### *Impact on U.S. Trade with Canada and other countries*

Trade in transportation services is largely regional, and concentrated in the United States-Mexican border area. This trade primarily occurs in the trucking services sector of the transportation industry. The impact of an FTA with Mexico on United States-Canada trade in all transportation services will be negligible.

#### *Impact on U.S. Industry*

Industry sources have said that if Mexican truckers were permitted extensive access to the U.S. market, it would lead to substantial benefits for Mexican motor carriers and, in turn, have an adverse impact on the U.S. trucking industry because of a decline in U.S. market share.



## Chapter 5 The Likely Impact on U.S. Regions

### U.S. Census Regions

A United States-Mexico FTA could have significant effects in regions of the United States, even if it has only a slight effect on the country overall. It might have a significant effect in a region if the region contains a relatively large concentration of one or more industries that are affected moderately or significantly. In its analysis of an FTA's effects in specific industries, reported in chapter 4, the Commission found that an FTA would probably have negligible effects in 17 of 19 U.S. industries studied, a moderately negative effect on the horticultural products industry, and an uncertain effect on the autos and auto parts industry.

In order to determine the importance of the horticultural products industry to regions of the United States, Commission staff analyzed data on industry cash receipts as a percentage of personal income<sup>1</sup> in U.S. census regions and in the nation as a whole.<sup>2</sup> The results for horticultural products and the other 4 agricultural industries studied are shown in table 5-1. U.S. census regions and their percentages of overall U.S. employment are shown in figure 5-1. Cash receipts for the production of horticultural products accounted for 0.6 percent of national personal income in 1989. The industry is most concentrated, relative to total regional personal income, in the Pacific and Mountain regions where its cash receipts were 1.7 percent and 1.2 percent of personal income, respectively.

Data on private, nonagricultural employment in the 14 nonagricultural industries studied in regions and the United States as a whole are shown in Table 5-2.<sup>3</sup> Autos and auto parts accounted for 1.4 percent of private, nonagricultural employment in the United States in 1989. The industry is highly concentrated, relative to regional employment, in the East North Central region where it accounted for 4.7 percent of employment.

Based on this information, it is unlikely that a United States-Mexico FTA would have a significant effect, either positive or negative, on the economy of any region. An FTA is expected to have negligible effects in nearly all of the industries studied. The one industry in which a moderate effect is expected, horticultural products, is small, accounting for less than 1 percent of national personal income and at most 1.7 percent in any region. A greater than negligible effect is possible in the auto and auto parts industry. However, this indus-

<sup>1</sup> Data on industry cash receipts are from the Department of Agriculture, Economic Research Service. Data on personal income are from the U.S. Department of Commerce, Bureau of Economic Analysis.

<sup>2</sup> These data were used because employment data by region are not available for agricultural industries.

<sup>3</sup> Employment data are from the U.S. Department of Labor, Bureau of Labor Statistics.

try is not concentrated in the same regions as horticultural products, making a reinforcing effect unlikely. Moreover, the effects of an FTA on the nation as a whole are expected to be positive but small.

### *Effects on the Industrial Midwest*

The East North Central region corresponds most closely to the "industrial midwest" region, which Congress singled out for consideration in this study. The region has a low relative concentration of the horticultural products industry, but a rather high concentration of autos and auto parts. Uncertainty about the effects in this industry leaves uncertainty about the effects on the East North Central region. It is unlikely that the effects in the auto and auto parts industry would be great enough to affect significantly general economic conditions in the region. However, the effects in the East North Central region might be slightly different from the national average.

### *Opinions of Interested Persons and Other Research*

Commission staff contacted numerous individuals in an effort to obtain opinions and the results of studies of the likely effects of a United States-Mexico FTA on regions. Contacts included city, state, and governors' representatives; labor union officials; academics; and regional business representatives. Many of them expressed interest or concern about the effects of an FTA, but the great majority said that neither they nor their organizations were conducting a formal analysis of the effects. Some organizations are preparing position papers on the prospective FTA, but few were complete at the time the Commission transmitted this report to Congress. Researchers in several universities and at least one private business organization are conducting studies of the effects of an FTA including, in some cases, the effects on states and counties. The results of these studies are not yet available. A summary of research in progress on the effects of an FTA is given in appendix D.

### **The Effects in the Southwest Border Region**

The southwestern U.S. border region can be defined for this analysis as the counties adjacent to the 2,000-mile-long U.S.-Mexico border between the Pacific coast and the Gulf of Mexico in the states of California, Arizona, New Mexico, and Texas. This area is not a "region" in any formal sense, but it is sometimes considered one because it is contiguous territory and all of it is close to the border.

The population of the border region is concentrated in a spate of communities strung along the border. By far the largest and wealthiest among them is San Diego

5-2 Table 5-1

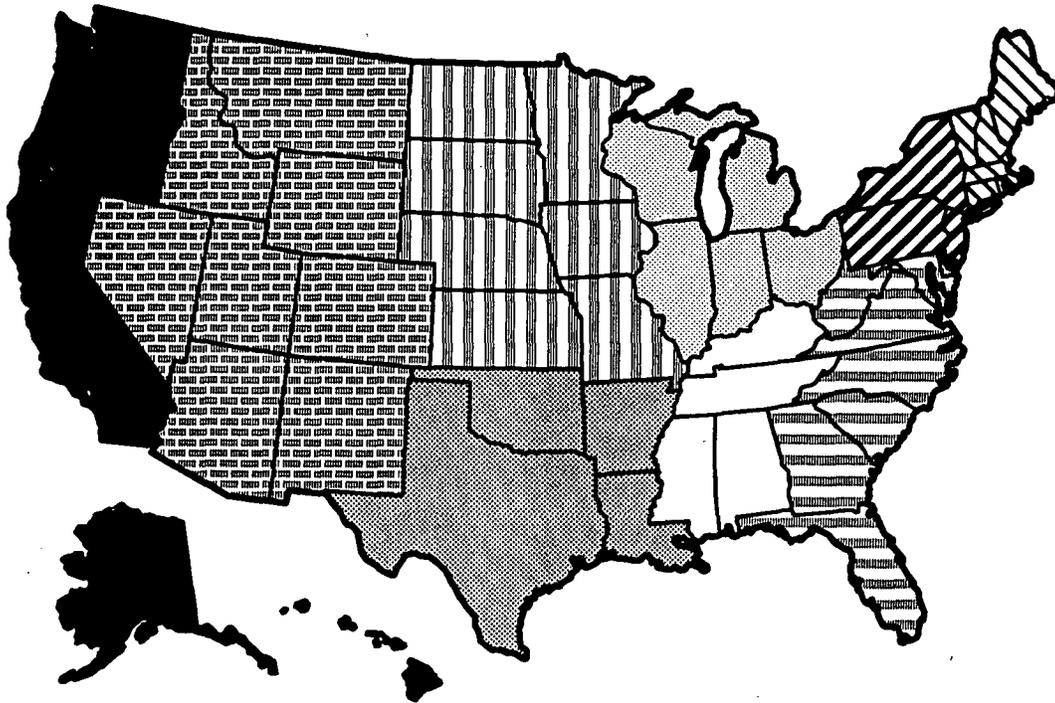
Cash receipts as a percentage of personal income, by specified commodities and regions, 1989

Commodity <sup>1</sup>	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	USA
Horticultural Products (percent) .....	0.29	0.21	0.27	0.38	0.81	0.27	0.34	1.21	1.69	0.64
Grains, Feedgrains, and Oilseed (percent) .....	0.01	0.06	1.27	4.93	0.34	0.79	0.96	1.24	0.30	0.85
Livestock (percent) .....	0.04	0.10	0.68	6.72	0.33	1.05	1.99	2.93	0.34	1.07
Fisheries (percent) .....	0.00	0.00	0.00	0.00	0.00	0.10	0.02	0.00	0.00	0.01
Dairy Products (percent) .....	0.21	0.40	0.70	1.00	0.19	0.36	0.29	0.54	0.44	0.45
Total Income (millions) .....	\$279,687	\$760,662	\$733,881	\$289,809	\$739,231	\$211,326	\$396,726	\$209,217	\$733,609	\$4,354,147

<sup>1</sup> Agricultural commodities are based on U.S. Department of Agriculture definitions, with the following qualifications: Livestock is limited to non-poultry, meat animals; and horticultural products include vegetables, fruits/nuts, and greenhouse/nursery products.

Sources: Economic Research Service, Department of Agriculture, *Economic Indicators of the Farm Sector: State Financial Summary*, table 5 and Bureau of Economic Analysis, *Survey of Current Business*, August 1990, table 3.

**Figure 5-1**  
**Census regions of the United States**



Census Region	Percent of U.S. employment
New England	5.73%
Middle Atlantic	15.04%
East North Central	17.28%
West North Central	7.53%
South Atlantic	17.51%
East South Central	5.73%
West South Central	10.3%
Mountain	5.33%
Pacific	15.52%

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment*, table 4.

54 Table 5-2

Employment in specified industries as a percentage of regional and national private nonagricultural employment, 1989

Industry Sector <sup>1</sup>	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	USA
Alcoholic Beverages (percent)	0.00	0.15	0.11	0.12	0.09	0.12	0.03	0.13	0.17	0.13
Autos and Auto Parts (percent)	0.20	0.60	4.70	1.00	0.70	1.60	0.50	0.20	0.50	1.40
Cement <sup>2</sup> (percent)	0.00	0.02	0.02	0.03	0.01	0.02	0.01	0.01	0.02	0.02
Chemicals (percent)	1.00	2.40	1.70	1.20	1.50	1.70	1.90	0.60	0.70	1.51
Electronic Products (percent)	3.90	2.30	2.60	1.90	1.60	2.40	1.90	2.30	2.80	2.34
Energy Products <sup>2</sup> (percent)	0.03	0.09	0.13	0.19	0.04	1.00	0.17	0.21	0.25	0.28
Glass Products <sup>2</sup> (percent)	0.01	0.13	0.10	0.00	0.07	0.07	0.03	0.00	0.07	0.09
Machinery & Equipment (percent)	4.60	2.70	4.30	3.10	1.90	2.30	2.70	2.20	2.70	3.00
Steel Mill Products <sup>2</sup> (percent)	0.15	0.49	1.16	0.18	0.19	0.14	0.57	0.05	0.15	0.43
Textiles & Apparel (percent)	1.40	2.50	0.50	0.60	4.90	4.90	1.30	0.50	1.40	2.11
Banking & Insurance (percent)	9.40	9.60	7.30	8.20	8.10	5.70	7.50	8.50	9.10	8.25
Construction (percent)	6.50	6.40	5.40	5.20	8.20	6.80	7.00	6.60	7.00	6.64
Telecommunication (percent)	2.60	3.20	2.50	3.10	3.30	2.60	3.30	3.70	2.50	2.94
Transportation (percent)	2.90	4.20	3.90	4.90	4.30	4.40	4.70	4.50	4.00	4.20
Total Employment (thousands)	5,296	13,502	15,668	6,205	15,105	4,940	8,620	4,366	12,987	86,689

<sup>1</sup> The manufacturing sectors are defined by Standard Industrial Classification (SIC) codes as follows: alcoholics, SIC 208; autos and auto parts, SIC 371; cement, SIC 324; chemicals, SIC 28; electronic products, SIC 36; energy products, SIC 131 and 29; glass products, SIC 322; machinery and equipment, SIC 35; steel mill products, SIC 331 and 332; textiles and apparel, SIC 22 and 23. The banking and insurance industry includes employment figures for the real estate industry.

<sup>2</sup> Data for this industry are based on 1987 information. Nondisclosure requirements of some states may result in an underestimate of regional employment.

Sources: U.S. Department of Labor, Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment, 1989*, Table 6; unpublished data from the Current Employment Survey of the Bureau of Labor Statistics; and Bureau of the Census, U.S. Department of Commerce, *County Business Patterns 1987*.

on the Pacific coast. Per capita personal income in San Diego was \$17,576 in 1988, which was 7 percent above the national average.<sup>4</sup> Incomes generally decline as one moves eastward along the border. The three cities farthest east—Laredo, McAllen, and Brownsville—are not only the poorest in the border region, but are the poorest metropolitan areas in the country. Per capita personal income in McAllen was \$7,302 in 1988, 56 percent below the national average and 58 percent below San Diego.

All of the border cities have "twin" cities on the other side. The pairings include such cities as Brownsville and Matamoros, El Paso and Ciudad Juarez, Calexico and Mexicali, and San Diego and Tijuana. The border cities are highly linked economically to their twins and to the rest of the country on the other side.

### *Economy of the Border Region*

Mexico's maquiladora industry constitutes the largest part of the border region's economic base.<sup>5</sup> At the end of 1989 maquiladoras employed 437,064 workers in 1,795 facilities. Seventy-eight percent of maquiladora employment is in Mexico's northern border region.<sup>6</sup> Major maquiladora industries include electronics, automotive products, and apparel.

Retailing is the largest industry on the U.S. side of the border, providing 26 percent of the region's employment.<sup>7</sup> U.S. retailers serve not only the U.S. border communities, but Mexicans from the bordering cities and from farther inland who come to buy goods not available or believed to be of higher quality than those sold in Mexico. One-third to two-thirds of retail sales in most U.S. border communities are made to Mexicans, according to estimates.<sup>8</sup>

Other important industries in the U.S. border region include wholesaling, which serves the retailing industry; transportation services, which facilitate the flow of goods in both directions; and services associated with U.S. customs, such as customs brokerage.

<sup>4</sup> Statistics are from the U.S. Department of Commerce, Bureau of Economic Analysis.

<sup>5</sup> For more information on the maquiladora industry, see chapter 1 of this report. For a further discussion of maquiladoras and U.S. tariff provisions under subheadings 9802.00.60 and 9802.00.80 of the Harmonized Tariff Schedule (formerly 806.30 and 807.00 of the Tariff Schedule of the United States) see USITC publication No. 2275, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexican Relations*, April 1990; USITC publication No. 1915, *The Impact of Increased United States Mexico Trade on Southwest Border Development*, November 1986; and USITC publication No. 2243, *Production Sharing: U.S. Imports Under Harmonized Tariff Schedule Subheadings 9802.00.60 and 9802.00.80, 1985-1988*, December 1989.

<sup>6</sup> Mexican Government statistics reported in The Committee for the Promotion of Investment in Mexico, "An Overview of the Maquiladora Industry in Mexico," January 1990.

<sup>7</sup> Statistics from the U.S. Bureau of the Census, *State and Country Business Patterns*, 1988.

<sup>8</sup> Khosrow Fatemi and Michael Landeck, "The U.S.-Mexico Free Trade Agreement: Its Impact on the Border," unpublished.

Two important qualifications must be noted to the economic linkage described. One is that San Diego's economy is much more independent of Mexico and the border than are the other border communities. San Diego has a major port, several military installations including the headquarters of the U.S. Pacific fleet, electronics manufacturing, a large tourism industry, and several colleges and universities. The other qualification is that agriculture in the border region, which includes California's Imperial Valley, is less linked to trade with Mexico. Agriculture, however, constitutes only a small fraction of the region's economy.<sup>9</sup>

### *The Effects of an FTA*

A United States-Mexico FTA would affect the southwestern border in a number of conflicting ways, with the net effect ambiguous. An FTA would increase United States-Mexican trade and therefore increase trade-related activities along the border, but could also hurt certain segments of the border economy in the short run, notably retailing. An assessment follows of the likely effects of an FTA on individual U.S. border activities.<sup>10</sup>

#### **Maquiladoras**

An FTA would decrease restrictions on Mexican exports to the United States and thereby increase the incentive for maquiladora production and exports. However, any increase in maquiladora production is likely to be small because an FTA would provide little additional duty reduction for maquiladora operations, which already benefit from significant trade preferences.

Indeed, the concept of the maquiladora as distinct from other Mexican production facilities may cease to exist as the provisions of an FTA are implemented. Under an FTA, nonmaquiladoras would receive the same treatment the Mexican Government currently grants to maquiladora operations of purchasing U.S. components and materials free of duty. As a result, maquiladoras are likely to evolve from pure assembly-line operations to full-fledged foreign-investment manufacturing firms.<sup>11</sup>

<sup>9</sup> Only 1 percent of the border region's workers are employed in agriculture according to data in U.S. Bureau of the Census, *State and Country Business Patterns*, 1988.

<sup>10</sup> For a discussion of concerns relating to environmental effects along the border and the role of inadequate border infrastructure, see USITC, *Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexico Relations, Phase II*, USITC Publication 2326, October 1990, pp. 1-10 to 1-11.

<sup>11</sup> For further discussion on the evolution of maquiladoras, see "Mexico: A New Economic Era," *Business Week*, Nov. 12, 1990, p. 108. Additional information provided by Jesus Franco, American Industrial Manufacturing, interview by USITC staff at the U.S. Mexico Free Trade Agreement Conference at Laredo State University, Nov. 29-30, 1990 and Gregory K. Schoepfle, "U.S. Mexico Free Trade Agreement: The 'Maquilization' of Mexico?" Apr. 18, 1990, p. 8.

An FTA could reduce the incentive for maquiladoras to be located along the border. Because these firms will no longer have the special incentive as maquiladoras to use U.S. raw materials and components,<sup>12</sup> the incentive will be reduced to locate where transportation costs to the United States are minimized. Also, by eliminating Mexico's tariff on U.S. components in maquiladora products sold in Mexico, an FTA would increase the incentive to locate plants in Mexico's interior or near population centers, where the consumer market and manufacturing centers are concentrated and there is better access to Mexico's low-cost labor. In addition, transportation and other infrastructure bottlenecks—especially on the Mexican side—may constrain economic growth along the border and create incentives for non-border locations.

However, the southwest border region will retain much of its attractiveness as a location for manufacturing and production sharing. Border locations will offer proximity to existing border suppliers and services, proximity to Mexican markets, access to lower-cost Mexican labor, and a convenient location for higher-technology production processes an industry may be reluctant to introduce into Mexico.<sup>13</sup> Also, managers of U.S. plants in the border region will be able to live in the United States and commute to facilities in Mexico on a daily basis. The twin plant concept allows firms to benefit from better distribution and telephone systems as well as lower cost transportation in the United States. Production-sharing operations will continue to provide an important way to conduct business with a foreign culture, especially for small and medium-size firms.<sup>14</sup>

#### U.S. suppliers of raw materials and components to maquiladoras

Reportedly, U.S. firms currently supply ninety-eight percent of the raw materials and components used by maquiladoras.<sup>15</sup> Some of these suppliers are located in the southwest border region, many are not.<sup>16</sup>

<sup>12</sup> For a further explanation, see the following section on U.S. suppliers of raw materials and components.

<sup>13</sup> An example of high-technology industrial processes is plastic injection molding, the fastest-growing industrial sector in the El Paso, TX area. Other high-technology areas include the tool and die and the metal stamping industries. For further information, see Border Trade Alliance, letter to the Office of the Secretary, U.S. International Trade Commission, Dec. 6, 1990.

<sup>14</sup> Peter F. Drucker, Professor of Social Sciences at the Claremont Graduate School in California, "Mexico's Ugly Duckling—The Maquiladora," *The Wall Street Journal*, Oct. 4, 1990.

<sup>15</sup> Institute for International Trade, Laredo State University, *Border Business Indicators*, November 1990, p. 2.

<sup>16</sup> See Smith, Barshop, Stoffer, & Millsap, Inc., letter to the Office of the Secretary, U.S. International Trade Commission, Nov. 21, 1990; "Maquila Industry in Sonora, Mexico: Impacts on the Arizona Economy," *Arizona's Economy*, Jan. 1988, pp. 1 ff; and "Is Free Trade with Mexico Good or Bad for the U.S.?" *Business Week*, Nov. 12, 1990, pp. 112-113.

It is uncertain how an FTA would affect these suppliers. By eliminating U.S. tariffs on the non-U.S. value-added component of maquiladora exports to the United States, the FTA would tend to reduce the incentive to use U.S. raw materials and components for any given level of maquiladora output. As a result, the FTA could increase the incentive to use components manufactured in Mexico<sup>17</sup> as well as in third countries as long as the rules of origin are satisfied.

#### Retailers

In the short run, some U.S. retailers along the border are likely to experience decreased sales because of the FTA. However, any short-run losses will probably be offset in the longer run when retailers will benefit from overall increased economic growth in the border region.

Many U.S. retailers in the southwest border region currently enjoy a competitive advantage because the goods they sell either are not available in Mexico or are not available at competitive prices or in the same quality. Retailers on both sides of the border, however, feel apprehensive about their ability to compete in both United States and Mexican markets under an FTA.<sup>18</sup>

An FTA would eliminate some of the advantages for U.S. retailers by allowing Mexican retailers to sell U.S.-made consumer goods free of duty and, possibly, cheaper because of lower overhead costs in Mexico.<sup>19</sup> However, an FTA would also provide U.S. retailers access to new sources of goods as well as access to Mexico's large consumer market. An FTA would have little effect on retail sales of goods that do not meet rule-of-origin requirements—such as cheaper imitations or clones of U.S. products, European-labeled fashion apparel, and electronic goods—because they would probably not qualify for duty-free treatment under an FTA.<sup>20</sup>

Some larger U.S. border retailers anticipate that an FTA will enable them to set up outlets in Mexico to compete directly with Mexican retailers.<sup>21</sup> Indeed, some Mexicans are concerned that larger U.S. retailers, through their wider selection, lower prices, and more sophisticated sales and marketing technologies, would be more competitive than Mexican retailers.<sup>22</sup> Howev-

<sup>17</sup> Gregory K. Schoepfle, "U.S. Mexico Free Trade Agreement: The 'Maquilazation' of Mexico?" p. 6.

<sup>18</sup> U.S. Mexico Free Trade Agreement Conference at Laredo State University, Nov. 29-30, 1990.

<sup>19</sup> Institute for International Trade, Laredo State University, *Border Business Indicators*, November 1990, p. 2.

<sup>20</sup> "United States and Mexico Free Trade Agreement Retailing," unpublished paper from the U.S. Mexico Free Trade Agreement Conference, Laredo State University, Nov. 29-30, 1990.

<sup>21</sup> The Greater El Paso Chamber of Commerce and the Institute for Manufacturing and Materials Management, "Paso del Norte Region: U.S.-Mexico Free Trade," position papers, Dec. 5, 1990.

<sup>22</sup> *Ibid.*

er, an FTA may leave smaller U.S. border retailers more vulnerable to competition.<sup>23</sup> For example, unlike larger firms, small retailers would be less able to set up outlets in Mexico to establish a market presence. Moreover, smaller retailers lack the financial and sourcing options of larger firms to compete with established Mexican retailers in pricing and selection.<sup>24</sup>

### Wholesalers

U.S. wholesalers in the border region share many of the same concerns as retailers.<sup>25</sup> One concern is the potential for Mexican industries to develop their own local suppliers at the expense of U.S. wholesalers. On the other hand, U.S. wholesalers in the border region might be able to supply both U.S. and Mexican retailers in the region. As with retailers, overall economic expansion in the border region may help U.S. wholesalers offset any short-run losses.

### Warehousing, distribution, and transportation services

An FTA will increase United States-Mexican trade and thereby raise demand for trade-related activities along the border, including warehousing, distribution, and transportation services. Approximately 85 percent of United States-Mexican trade currently is transported overland.<sup>26</sup> Increased trade stemming from an FTA will strain already overburdened border transportation systems (rail networks, bridges, and roads), customs, immigration, and agricultural inspection facilities at port of entry facilities.<sup>27</sup> However, an FTA also

<sup>23</sup> San Diego, "Impact on the San Diego Border Economy," p. 2.

<sup>24</sup> Alfredo Corchado, "Presidents Talk Today in Mexico," *El Paso Herald Post*, Nov. 26, 1990, p. A-5.

<sup>25</sup> Greater El Paso Chamber of Commerce, "Paso del Norte Region," Dec. 5 1990, p. 8.

<sup>26</sup> Greater Austin-San Antonio Corridor Council, Inc., "Comments on the U.S. Mexico Free Trade Agreement Provided to the International Trade Commission Investigation Number 332-297," Dec. 10, 1990, p. 2.

<sup>27</sup> Middle Rio Grande Development Council, "Statement of Position: U.S.-Mexico Free Trade Agreement," letter, Dec. 4, 1990.

may encourage more investment in regional transportation facilities, such as a proposed San Diego-Tijuana jointly managed regional airport.<sup>28</sup>

### Agriculture

Any effects of an FTA on agriculture would be felt nationwide. Concerns of U.S. agriculture such as those over wage differentials between United States and Mexican farmers and fair and equal health and food safety standards are national issues and not limited to border agricultural producers.<sup>29</sup> Concerns specific to the border region include the impact of an FTA on water resources and on the availability of Mexican labor on U.S. farms.<sup>30</sup> An FTA could threaten the availability of already scarce water resources along the Texas border and further exacerbate a growing water quality problem in the entire Rio Grande River Basin.<sup>31</sup> It could also create job opportunities in agricultural production and processing in Mexico, thereby limiting the availability of Mexican agricultural workers in rural U.S. border regions.<sup>32</sup>

<sup>28</sup> San Diego Chapter of the Border Trade Alliance, "Impact of the Proposed U.S. Mexico Free Trade Agreement on the San Diego Border Economy," Nov. 26, 1990.

<sup>29</sup> For information on the likely impact of an FTA on U.S. agriculture, see chapter 4 of this report.

<sup>30</sup> Agricultural interests in the border region were unable to identify any issues specific to small farmers. Indeed, several interested parties noted the difficulty in identifying specific agricultural sectors in which small farmers predominate. For example, although there are many small fruit and vegetable farmers, modern fruit and vegetable production often is a large-scale operation. Large farmers traditionally are more flexible and more diversified, and probably would be better able to adjust to the changing environment under an FTA. However, both large and small farmers are equally concerned about the impact of an FTA. See Florida Fruit and Vegetable Association, letter to the Chairman, U.S. International Trade Commission, Oct. 15, 1990, p. 1. Also, telephone conversations with the California State World Trade Commission, Oct. 29, 1990; and the Arizona Farm Bureau, Oct. 31, 1990.

<sup>31</sup> Middle Rio Grande Development Council letter, Dec. 4, 1990, p. 3.

<sup>32</sup> Western Growers Association, letter to the Secretary of the Commission, U.S. International Trade Commission, Dec. 10, 1990, p. 4.



**APPENDIX A**  
**REQUEST LETTER**

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Congress of the United States  
Washington, DC 20515

RECEIVED  
90 SEP 28 P 2: 43  
OFFICE OF THE CLERK

September 27, 1990

The Honorable Anne E. Brunsdale  
Acting Chairman  
U.S. International Trade Commission  
500 E Street, S.W.  
Washington, D.C. 20436

Dear Madam Chairman:

As you know, on June 10, 1990, President Bush and Mexican President Salinas endorsed negotiation of a comprehensive bilateral free trade agreement between the United States and Mexico. On August 8, the U.S. Trade Representative and the Secretary of Commerce and Industrial Development of Mexico jointly recommended to the Presidents of both countries the initiation of formal negotiations on a comprehensive free trade agreement.

Such an agreement could have a significant impact on a number of important sectors of our economy and is likely to have differing impacts on various regions of the United States. It is essential that the Congress, the Administration, and the private sector have a better understanding of the implications of an agreement in terms of both costs and benefits.

Consequently, on behalf of the House Committee on Ways and Means and the Senate Committee on Finance, we request that you conduct a fact-finding study under section 332(g) of the Tariff Act of 1930 consisting of (1) an overview of recent events significantly influencing U.S.-Mexico economic relations, including a profile of Mexico's trade and investment patterns; (2) a summary of the likely impact of the proposed free trade agreement with Mexico on the U.S. economy in general; (3) a summary of the likely impact on major U.S. industries and other sectors, including agriculture, that would be most affected by the proposed free trade agreement with Mexico; and (4) an indication of the regions in the United States that would be most affected by the proposed free trade agreement with Mexico and a summary of the nature of these effects.

The Honorable Anne E. Brunsdale  
September 27, 1990  
Page 2

Canada may participate in the proposed negotiations. Therefore, we request that the study also analyze, to the extent feasible, the three-way interrelationship and the impact on U.S.-Canada and on U.S.-Mexico trade if Canada does join an agreement.

The study should summarize the overall economic context of the negotiations, describing current U.S.-Mexico trade and investment flows, current tariff and other trade and investment barriers, and major areas of production and employment that may be affected by an agreement. The study should analyze the potential aggregate impact of an agreement on bilateral trade and investment flows and changes in types and levels of production and employment, including shifts in relative wage and skill levels between the two countries. Within this overall context, the study should focus on the factors involved and the potential impact of a free trade agreement in key sectors, such as the auto and auto parts, textile, oil and petrochemicals, computer and electronics, steel, cement, glass, and agriculture (e.g., grains, feed grains, and oil seeds; livestock; horticultural products; seafood; and alcoholic beverages) sectors.

Within each of these sectors, the study should describe the economic and other relevant factors and policies that affect bilateral trade and investment, including any sector-specific bilateral agreements, and analyze the possible impact of an agreement on U.S. production and employment and bilateral trade flows. The analysis of the auto and auto-parts sector should include the implications of U.S.-Mexican free trade, taking into account the possibility of industry-specific restrictions on that trade, for U.S.-Canada automotive trade and the interrelationship among the three countries with respect to production and trade in that sector. To the extent feasible, the discussion of the automotive sector should also consider some of the implications of North American free trade on U.S. global competitiveness in that sector.

The study should also focus on the potential impact of the agreement on major regions of the United States, in particular the southwestern border communities and the industrial Midwest. Of specific interest with respect to the border regions is the potential impact on Mexico's maquiladora program and its raw-material-supplier component, on specific economic activities such as wholesaling, retailing, and transport, and on farmers, particularly small farmers. For example, would an agreement result in the shifting or the loss or growth of such activities

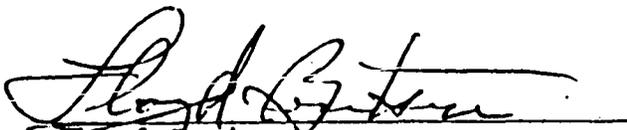
The Honorable Anne E. Brunsdale  
September 27, 1990  
Page 3

across the border, or are factors other than trade barriers more important to the location of production, supply, and distribution? The potential impact of an agreement on the industrial Midwest should focus on production and employment in the relevant key industries and sectors noted above. For example, would the removal of tariff and other trade barriers likely result in a transfer of basic production to Mexico or are other economic factors more important?

Since negotiations may proceed with Mexico next spring, we would appreciate receiving the study by February 1, 1991. In view of the time constraint, the study should be descriptive and concise rather than quantitative and detailed. More detailed analysis could be provided in followup studies.

Thank you for your cooperation.

Sincerely yours,



Lloyd Bentsen  
Chairman  
Committee on Finance  
United States Senate



Dan Rostenkowski  
Chairman  
Committee on Ways and Means  
U.S. House of Representatives

**APPENDIX B**  
**FEDERAL REGISTER NOTICE**

(Investigation No. 332-297)

**Likely Impact of a Free Trade Agreement With Mexico on the United States**

**AGENCY:** United States International Trade Commission.

**ACTION:** Institution of investigation and request for comments.

**EFFECTIVE DATE:** October 10, 1990.

**FOR FURTHER INFORMATION CONTACT:** Joanne Guth (202-252-1264), Trade Reports Division, Office of Economics, and Robert W. Wallace (202-252-1458), Textiles Division, Office of Industries, U.S. International Trade Commission, Washington, DC 20436.

**SUMMARY:** Following receipt on September 28, 1990, of a request from the Committee on Ways and Means of the U.S. House of Representatives and the Committee on Finance of the U.S. Senate, the Commission instituted investigation No. 332-297 under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) to provide information relating to the implications for the United States of a U.S.-Mexico free trade agreement.

More specifically, the Committees requested that the Commission in its report provide the following: (1) An overview of recent events significantly influencing U.S.-Mexico economic relations, including a profile of Mexico's trade and investment patterns; (2) a summary of the likely impact of the proposed free trade agreement with Mexico on the U.S. economy in general; (3) a summary of the likely impact on major U.S. industries and other sectors, including agriculture, that would be most affected by the proposed free trade agreement with Mexico; and (4) an indication of the regions in the United States that would be most affected by the proposed free trade agreement with Mexico and a summary of the nature of these effects. Because Canada may participate in the proposed negotiations, the Committees requested that the Commission also analyze, to the extent feasible, the three-way interrelationship and the impact on U.S.-Canada and on

U.S.-Mexico trade if Canada does join an agreement.

The Committees requested that the Commission submit its report by February 1, 1991.

**WRITTEN SUBMISSIONS:** Interested persons are invited to submit written statements concerning the investigation. The Commission is particularly interested in learning about completed or ongoing research on the regional economic impact, as well as the overall impact on the United States, of the proposed free trade agreement. Commercial or financial information that a party desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection to interested persons by the Office of the Secretary to the Commission. To be assured of consideration by the Commission, written statements relating to the Commission's report should be submitted at the earliest possible date and should be received no later than November 26, 1990. All submissions should be addressed to the Secretary to the Commission at the Commission's office in Washington, DC.

Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 252-1809.

By order of the Commission.

Issued: October 11, 1990.

Kenneth R. Mason,

Secretary.

[FR Doc. 24465 Filed 10-16-90; 8:45 am]

BILLING CODE 7020-02-0

**APPENDIX C**  
**LIST OF SUBMISSIONS**

**Written Submissions  
Inv. No. 332-297**

*Agriculture*

Frank Bouis, President  
Florida Fruit and Vegetable Association, Orlando, FL

Carl B. Loop, Jr., President  
Florida Farm Bureau Federation, Gainesville, FL

Florida Department of Citrus and others, Lakeland, FL  
(by Max N. Berry, Washington, DC)

Florida Tomato Exchange, Orlando, FL  
(by Holland and Knight, Washington, DC)

Florida Fruit and Vegetable Association, Orlando, FL  
(by Holland and Knight, Washington, DC)

Bobby F. McKnown, Executive Vice President  
Florida Citrus Mutual, Lakeland, FL  
(orange juice and citrus products)

Doyle Conner, Commissioner  
Department of Agriculture and Consumer Services  
Tallahassee, FL

Dean R. Kleckner, President  
American Farm Bureau Federation, Washington, DC

David L. Zollinger, Chairman  
National Association of Growers and Processors for Fair Trade  
Stockton, CA (tomatoes)

Paul Fanelli, Industrial Relations Manager  
Patterson Frozen Foods, Inc., Patterson, CA

Thomas Krugman, Manager  
California Cling Peach Advisory Board  
San Francisco, CA

Mark Affleck, President  
California Avocado Commission, Santa Ana, CA

Bob L. Vice, President  
California Farm Bureau Federation, Sacramento, CA

Michael Stuart, Senior Vice President  
Western Growers Association, Newport Beach, CA (fresh produce)

William P. Woods, Jr.,  
Starkist Seafood Co. (HJ Heinz)  
Long Beach, CA

Cherokee Products Co. and others  
Haddock, GA (sweet peppers and pimientos)

The Mexican Associations of Flower Exporters and Producers  
(by Porter, Wright, Morris, and Arthur, Washington, DC)  
(fresh cut flowers)

Mexican Association of Prepared Food Processors  
(by Porter, Wright, Morris and Arthur, Washington, DC)  
(peppers)

Ronald E. Walker, Executive Director  
National Potato Council, Englewood, CO

John A. Grunwald, President  
David R. Webb Co., Inc., Edinburg, IN  
(wood products)

Floral Trade Council  
(by Stewart and Stewart, Washington, DC)

Mexican National Citrus Processors Association  
(by Brownstein, Zeidman and Schomer, Washington, DC)  
(frozen concentrated orange juice)

James C. Krone, Executive Vice President  
Roses, Inc., Haslett, MI

Albert A. Almy, Director, Public Affairs Division  
Michigan Farm Bureau, Lansing, MI

Benjamin C. Bolusky, Director of Government Affairs  
American Association of Nurserymen, Washington, DC

Christopher A. Sinclair, President  
Pepsi-Cola International, Somers, NY

Heublein Inc.  
(by International Business-Government Counsellors, Inc., Washington, DC)  
(tequila)

Robert J. Maxwell, President  
National Association of Beverage Importers, Washington, DC  
(alcoholic beverages)

Steven Naclerio, Senior Vice President, General Counsel  
Bacardi Imports, Inc., Miami, FL

John J. Davis III, Assistant Vice President  
Brown Forman Corp. (wines and spirits)

Willard Pedersen, Chairman,  
North Dakota Wheat Commission, Bismark, ND

F. A. Meister, President, CEO  
Distilled Spirits Council of the United States, Inc.  
Washington, DC

### *Autos and auto parts*

Patricia Williams, Executive Vice President  
Spring Manufacturers Institute, Rolling Meadows, IL  
(precision mechanical springs)

Rassini S.A. de C.V. and Rassini International  
(by Porter, Wright, Morris and Arthur, Washington, DC)  
(automotive springs)

### *Chemicals and energy*

Nemesis, S.A., Mexico City  
(by Porter, Wright, Morris and Arthur, Washington, DC)  
(Hexa, a industrial crystalline material)

Susan Crowley, Director, Business Issues Policy  
Merck and Co., Inc., Rahway, NJ  
(chemicals, pharmaceuticals)

Edwin L. Artzt, Chairman, Chief Executive  
Proctor & Gamble, Cincinnati, OH  
(chemicals, health products)

New Mexico Department of Energy, Minerals, and Natural Resources  
(by Katten Muchin Zavis & Dombroff) (energy)

Brower A. Merriam, Executive Vice President  
Pfizer International, New York, NY  
(intellectual property, pharmaceuticals)

David F. Tuthill, General Counsel, Secretary  
Aristech Chemical Corp., Pittsburgh, PA  
(petrochemicals)

### *Electronics*

Smith, Barshop, Stoffer and Millsap, San Antonio, TX  
(intellectual property, economic impact, and regional influence)

Committee to Preserve American Color Television ("COMPACT"), Washington, DC  
(by Collier, Shannon, and Scott and Georgetown Economic Services,  
Washington, DC)

### *Glass and ceramic products*

Lawrence Bankowski, National President  
American Flint Glass Workers Union, AFL-CIO  
Toledo, OH

Indiana Glass Co., Blue Ash, OH  
(by Barnes & Thornburg, Washington, DC)

Pfaltzgraff Co., York, PA  
(by Collier, Shannon, and Scott and Georgetown Economic Services,  
Washington, DC)

Corning, Inc.  
(by St. Maxens and Co., Washington, DC)

Anchor Hocking Glass Co., subsidiary of the Newell Co., Freeport, IL  
(by Sidley and Austin, Washington, DC)

PPG Industries, Inc., Pittsburgh, PA  
(by Stewart and Stewart, Washington, DC) (glass)

Vitro, S.A. and its subsidiary companies  
(by Brownstein, Zeidman and Schomer, Washington, DC)  
(glass products)

Mexican Ceramic Tile Industry  
(by Brownstein, Zeidman and Schomer, Washington, DC)  
(ceramic tile)

William L. Snyder, President  
American Olean Tile Co. (Armstrong Co.)  
Lansdale, PA

John F. Meier, Vice President/Director of Marketing and Sales  
Libbey Glass, Inc. (Owens-Illinois, Inc.), Toledo, OH

James Yamaguchi, President  
American Matsushita Electronics Corporation

### *Machinery and equipment*

Paul D. White, General Manager  
Johnson Matthey, Wayne, PA (catalytic systems)

Michael C. Thompson, Manager, Government Relations,  
Whirlpool Corp., Benton Harbor, MI

Arthur Fedrigon, President  
Beckart Environmental, Inc., Kenosha, WI

C. E. Tharp, President  
Environmental Dynamics Inc., Columbia, MO

Craig A. Loomis, President  
Sun Electric North America, Crystal Lake, IL  
(automotive test equipment)

William C. Lane, Representative  
Caterpillar Inc., Peoria, IL

A. M. (Steve) Marzano, President  
Mosler Inc., Hamilton, OH  
(physical and electronic security equipment)

Bert Diamonstein, Executive Director  
El Paso Industrial Development Corp., El Paso, TX

The Torrington Co.  
(by Stewart and Stewart, Washington, DC)  
(anti-friction bearings)

Servicios Condumex, S.A. de C.V., Mexico  
(by C & M International Ltd., Washington, DC)  
(ignition and other wiring sets, insulated electrical conductors for telephone equipment)

Conductores Monterrey, S.A. de C.V., Mexico  
(by C & M International Ltd., Washington, DC)  
(ignition and other wiring sets, insulated electrical conductors for telephone equipment)

### *Services*

Camara Nacional de la Industria de la Construccion  
(by Porter, Wright, Morris and Arthur, Washington, DC)

D. W. Smith, Regional Vice President  
AT&T, Coral Gables, FL

Frances Seghers, Executive Director, Federal Affairs  
Motion Picture Association, Washington, DC

Steve Solut, Vice President, Latin American Operations  
Motion Picture Export Association of America, Inc., Rua, Mexico  
(intellectual property)

*Steel mill products*

Robert T. Chancler, Managing Director  
American Wire Producers Association, Washington, DC

ACS Industries and ACS International, Woonsocket, RI  
(metal products, including electronic telephone cords)

Roger B. Schagrin, General Counsel  
Committee on Pipe and Tube Imports, Washington, DC

Chaparral Steel Co., Midlothian, TX  
(carbon steel bar and structural products)

Frank Fenton, Senior Vice President, Public Policy  
American Iron and Steel Institute, Washington, DC

Kenneth R. Button, Executive Secretary  
Non-Ferrous Metals Producers Committee, Washington, DC

Georgetown Industries, Inc., Charlotte, NC  
(by Wiley, Rein and Fielding, Washington DC)  
(carbon steel wire rod)

*Textiles, apparel, footwear, and other leather goods*

Honorable Jaime B. Fuster  
Member of Congress  
San Juan, Puerto Rico (apparel)

C.E. Brooks, Vice President, Secretary  
National Association of Hosiery Manufacturers, Charlotte, NC

Domenic DiPaola, General President  
International Leather Goods, Plastics and Novelty Workers' Union, AFL-CIO, New York, NY  
(handbags, luggage and personal leather goods)

Rubber and Plastic Footwear Manufacturers Association  
Washington, DC

Jack Sheinkman, President  
Amalgamated Clothing and Textile Workers Union, AFL-CIO  
New York, NY

Footwear Industries of America  
Washington, DC

G. Stewart Boswell, President  
American Apparel Manufacturers Association  
Arlington, VA

Jose A. Diaz-Llaneza, President  
Pliana, Inc., Greensboro, NC  
(polypropylene yarns)

*Other*

Richard C. Byrne, Executive Director  
Hand Tools Institute, Tarrytown, NY  
(non-powered hand tools)

The Mexican Association of Broom Manufacturers  
(by Porter, Wright, Morris and Arthur, Washington, DC)

Mattel  
El Segundo, CA

Tonka Co.,  
Minnetonka, MN

Committee of AZ-NM-TX-FL Producers of Gray Portland Cement  
(by Kilpatrick & Cody, Washington, DC)

Manufacturing Jewelers and Silversmiths of America  
(by Thompson, Hine and Flory, Washington, DC)

Friends of the Earth, Seattle, WA  
(environment, natural resources)

Stewart Hudson, Legislative Representative  
National Wildlife Federation, Washington, DC

Polaroid Corp.  
(by International Business-Government Counsellors, Inc., Washington, DC) (photography)

The Greater El Paso Chamber of Commerce  
(prepared by the University of Texas at El Paso, The Institute for Manufacturing and Materials  
Management)

*Business travel*

Robert A. Paluzi, President  
Center Marketing & Trading, El Paso, TX

Oscar Almeida, Chairman of the Board, David K. Hyland, President and others  
Interceramic, USA, Carrollton, TX

Alberto Sandoval, President and others  
Internacional de Ceramica S.A. C.V.

Richard N. Azar, Chairman  
TECMA Maquila Services, Inc., El Paso, TX

Itsuo Ishiyama E., President  
America Taisho Electric Corp., El Paso, TX

Chester J. Popkowski, Jr., El Paso, TX

Carlos F. Sisniega, President  
Dune Export, Inc., El Paso, TX

Virginia L. Aguirre, General Manager  
American Industries, Inc., El Paso, TX

John S. Tavenner, El Paso, TX

Raul Rodriguez, General Manager  
International Copy Machine Center, Inc., El Paso, TX

R. F. Hager and others  
ESMEX, El Paso, TX  
Electronica Y Espacio, S.A., De C.V.

Trafimar, Inc., El Paso, TX

Kay R. Whitmore, Chairman  
The Business Roundtable Mexico Working Group  
New York, NY

John Stroh, President  
El Paso Foreign Trade Association Inc., El Paso, TX

Michael Patterson, Executive Director  
Middle Rio Grande Development Council  
Carvizo Springs, TX

The Port of Corpus Christi Authority  
Corpus Christi, TX

The Coalition for North American Trade and Investment  
submitted by The Honorable Charles A. Vanik, Alexandria, VA

Border Trade Alliance  
Nogales, AZ

Stainlas T.  
G. Stout  
W.J. Conwell  
Clement J.K.  
Paul S. Watt  
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R. Gill  
S.W. DeBrand  
Gary S. Lyon  
M. Kamischhi  
M.J. Plyzitt  
Joseph F. Schrant  
W.G. Sheridan  
J.E. Cullers

### *General*

Center of Economic Studies for the Private Sector (CEESP)  
Mexico City

Colleen S. Morton, Director  
U.S. Council of the Mexico-U.S. Business Committee  
Washington, DC

Robert G. Gilbert  
Mayfield and Perrenot, El Paso, TX

Daniel O. Pegg, President  
San Diego Economic Development Corp., San Diego, CA

Steven P. Kersner, Vice Chairman  
American Association of Exporters and Importers  
U.S. Mexico Free Trade Committee, New York, NY

U.S. Chamber of Commerce  
Washington, DC

Instituto Tecnológico Autonomo de Mexico (ITAM)  
Mexico City

Greg Davenport, Executive Director  
Greater Austin-San Antonio Corridor Council  
San Marcos, TX

Sidney Weintraub  
Center for Strategic and International Studies  
Washington, DC

**Alberto Gomez and Jaime Valdivia**  
**Department of Economic Research**  
**Banco Nacional de Mexico, Mexico City**



**APPENDIX D**  
**SURVEY OF RESEARCH COMPLETED AND IN PROGRESS**

## General

This appendix outlines the Commission's survey of completed, ongoing, and planned research studies and position papers regarding the proposed United States-Mexico (Canadian) FTA. It focuses primarily on studies conducted or sponsored by Federal Government agencies, universities, and regional business associations.<sup>1</sup> The studies and position papers described below deal variously with the macroeconomic, sectoral, and/or the regional (including states) effects of an FTA. Some studies use computable general equilibrium analysis (CGE), while others consist of survey results and other types of empirical analysis. The Commission notes that given the interest in the issue, there undoubtedly are additional studies not listed below.

### U.S. Government And Government Sponsored Studies

#### U.S. International Trade Commission

*Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexican Relations*; Investigation No. 332-282; in response to a request from the House Ways and Means Committee.

Phase I *Recent Trade and Investment Reforms Undertaken by Mexico and Implications for the United States*; April 1990; USITC Publication 2275. This phase of the study includes an overview of the Mexican economy, Mexico's accession to the GATT and other international developments; a discussion of Mexico's recent efforts to deregulate its domestic economy and liberalize its trade and investment regime; an analysis of the impact of Mexican foreign investment regulations on different sectors; and a discussion of current Mexican intellectual property protection.

Phase II *Summary of Views on Prospects for Future United States-Mexico Relations*; October 1990; USITC Publication 2326. This phase of the study dealt primarily with the views of business, labor, government, and academic experts regarding the feasibility, likely benefits, and possible disadvantages of an FTA between the United States and Mexico, and the impact of an FTA on particular sectors (agriculture, industry, services, etc.). The report also discusses these experts' views on the trade issues which may be included in FTA negotiations as well as alternative negotiating strategies.

#### U.S. General Accounting Office; The National Security and International Affairs Division

##### *Border Infrastructure Study*

In response to a November 1990 request by the Senate Finance Committee, this study will assess the implications of a United States-Mexico FTA on the flow of commercial traffic along the United States-Mexico border. The GAO plans to evaluate the capacity of existing border infrastructure and analyze initiatives to facilitate the increased movement of commerce between the two countries. The GAO will also review opportunities to enhance coordination between the United States and Mexican Governments to facilitate the flow of commerce. It will discuss actions the U.S. Customs Service and other agencies or private organizations are taking to reduce delays or expedite the processing of traffic at border crossings. The report is scheduled to be completed by May 1991.

##### *Mexico Energy Trade Reforms and Outlook for Potential U.S. Investment*

This study is being conducted primarily out of the GAO Los Angeles Regional Office, pursuant to a July 1990 request by the House Foreign Affairs Subcommittee on Economic

<sup>1</sup> The Commission also received numerous submissions from U.S. and Mexican business groups which are set forth in appendix C.

Policy and International Trade. A major objective of the study is to provide a comprehensive review of recent energy trade and investment liberalization measures in Mexico. The report will also analyze Mexican oil and natural gas supplies and the factors affecting Mexican energy production. Finally, the report will explore the potential investment role of U.S. companies in Mexican energy resources and how the U.S. Government can assist in such investment. The report is scheduled to be completed by March 1991.

#### *United States-Mexico Trade: Trends and Impediments in Agricultural Trade*

This report was requested by the House Agriculture Committee in February 1990 and will be an update of an earlier January 1990 report of the same title. The updated report will respond to a number of potential issues raised by a prospective FTA regarding agriculture. These issues include Mexican and United States nontariff barriers such as licensing, inspection, and phytosanitary requirements, as well as the need to harmonize the testing, certification, and inspection requirements of the two countries. The report will summarize the negotiations under the framework agreement and the prospects for eliminating agricultural barriers to trade in an FTA. The report will be completed in February 1991.

#### *Complementary Agricultural Trade Issues*

This report was requested in May 1990 by the House Agriculture Committee and will be completed by February 1991. The report will describe agriculture growing patterns and seasons along the United States-Mexico border and the impact which current seasonal U.S. tariffs have on trade and on availability of agricultural goods in the United States. The growing seasons and trade patterns of 12 different agricultural products will be analyzed. The report will discuss the effectiveness of current U.S. seasonal tariffs and whether or not there is any basis to continue such tariffs under an FTA.

#### **U.S. Department of Labor; Bureau of International Labor Affairs**

#### *Industrial Effects of a Free Trade Agreement Between Mexico and the USA*

This report was completed on September 15, 1990, and prepared for the U.S. Department of Labor by the Interindustry Economic Research Fund, Inc., under the direction of Professor Clopper Almon of the University of Maryland. The study is based on input-output analysis of the United States and Mexican economies. The report concludes that the overall impact of an FTA will be relatively small, but positive on the United States and Mexican economies. The report states that the removal of tariff and trade barriers will increase U.S. exports to Mexico and total U.S. GNP, but only in relatively small amounts. The report further states that an FTA would strengthen the economy of the United States, but will be felt primarily in the long term. Regarding different sectors, the report concludes that removal of tariff and nontariff barriers under an FTA will result in lost jobs in only the U.S. apparel industry; all the other U.S. industries will gain jobs but in only very small amounts.

#### *United States-Mexico Free Trade Agreement: The Maquilazation of Mexico?*

This paper—prepared by Gregory K. Schoepfle, Bureau of International Labor Affairs, U.S. Department of Labor and dated April 18, 1990—discusses the history, present situation, and future impact of an FTA on the Mexican maquiladoras. The author outlines a number of issues to be addressed in FTA negotiations involving maquiladoras, including health, wages, safety, environment, infrastructure, rules of origin, and increased U.S. and foreign investment in Mexican operations.

## **U.S. Department of Agriculture**

### *Study of North American Free Trade Area*

This study was initiated pursuant to the 1990 congressional farm bill that requires the "Secretary of Agriculture [to] study the effects on the United States agricultural economy of the creation of a North American free trade area, including the creation of a United States-Mexico free trade area." The Congress intends the study to cover a number of issues including tariff and nontariff barriers to expanded bilateral or trilateral trade, how such trade barriers would be modified or eliminated under either a bilateral or trilateral FTA, mechanisms for settling agricultural disputes, and harmonizing standards and phytosanitary regulations. Congress has mandated that the study be completed by March 31, 1991.

### *General Equilibrium Model Study of Effects of an FTA on Agriculture and Agro-Processing Sectors*

This study by the Economic Research Service of the Department of Agriculture uses a United States-Mexico CGE model covering 25 sectors including basic and processed foods as well as other nonagricultural sectors. The model will quantify the effects of a reduction in trade barriers on the sectoral structure of the two countries' economies and on income and demand for agricultural imports. The model also will analyze the extent to which the anticipated demand for agricultural goods will be met by increased domestic production or imports. Preliminary results are anticipated to be completed by March or April, 1991.

### *Partial Equilibrium Model Study of Effects of an FTA on Specific Raw Agricultural Products*

This study, also conducted by the Economic Research Service, is intended to complement the general equilibrium model-based study described above. It will analyze approximately 30 different raw agricultural commodities and processed orange juice by examining the impact of an FTA on each commodity separately. The study will test the hypothesis that a bilateral United States-Mexico FTA would create additional trade between these two nations and increase welfare. Preliminary results are anticipated by April 1991.

## **Econometric Studies Regarding the Impact of a United States-Mexico FTA**

There have been a handful of academic and one private sector study using various econometric models which have been completed or are underway regarding the impact of an FTA between the United States and Mexico. The studies with which the Commission is familiar are set forth below:

### **Raul Hinojosa Ojeda, University of California, Berkeley**

Dr. Hinojosa has constructed a multiperiod CGE model to examine the impact of an FTA with Mexico using alternatively four, seven, and twenty different sectors of the United States and Mexican economies. The model addresses trade, migration, and capital flows and uses multiperiod demographic projections. Dr. Hinojosa concludes that a bilateral FTA will have a much greater impact on Mexico than the United States. He also concludes that elimination of the Mexican foreign debt would have a significantly greater impact on stimulating the economies of Mexico and the United States than an FTA. Finally, he predicts that lower wage earners in the United States will suffer reductions in income relative to higher wage U.S. earners as a result of an FTA.

### **Council of the Americas, Peat Marwick**

The U.S. Council of the Mexico-U.S. Business Committee has commissioned the accounting firm of Peat Marwick to examine the impact of a bilateral FTA on both the United

States and Mexico. Peat Marwick is using a 45-sector CGE model of the United States and Mexican economies to show the intersectoral as well as the aggregate impact of an FTA on both economies. The study will examine a number of scenarios reflecting different versions of an FTA: (1) the complete elimination of tariffs and NTBs; (2) the complete elimination of tariffs but only partial elimination of NTBs; and (3) various levels of capacity utilization, capital flows, and wage levels. The results will demonstrate the impact of an FTA on production, employment, exports, imports, and personal consumption. The report is expected to be completed by February 1991.

#### **Joint United States-Mexico-Canadian Academic Study**

A number of prominent academics in the United States, Canada, and Mexico are coordinating a project to assess the impact of an FTA using interactive CGE models focusing on different sectors of the three economies. The following people are involved: Clark Reynolds, Stanford University; Robert Stern, University of Michigan; Richard Harris, Queens University; John Walley, University of Western Ontario; James Markussen, University of Colorado; and Alberto Garcia Rocha, Colegio de Mexico. Each of the modelers are proceeding on a set of common assumptions including (1) that tariffs will be reduced to zero over a period of 7 years; and (2) there will be an investment component to the agreement. Both bilateral and trilateral scenarios will be examined. The models will focus on goods, not services. It is not expected that a regional analysis will be conducted. At present, it is anticipated that the empirical results will be presented at a conference in Washington, DC, in June 1991.

#### **Collegio de Mexico, Mexico City, Mexico**

The Collegio de Mexico, at the direction of SECOFI, is conducting several major studies.

#### *Static Computable General Equilibrium Model*

This study uses a static CGE model to measure the impact of an FTA on the Mexican economy. The model covers 27 different sectors, including 23 traded goods sectors and 4 service sectors. This model will not account for the Mexican debt, but will analyze the direction of the flow of investment, not the amount. The model may also be used to estimate the effects of an FTA on income distribution. The study will be completed by May 1991.

#### *Dynamic Computable General Equilibrium Model*

This study uses a dynamic CGE model to estimate the likely effect of an FTA on the Mexican economy, and possibly at a later date, the U.S. economy. The model examines the Mexican economy using 10 sectors and is adapted from 1 first developed by Lawrence Goulder of Stanford to study the U.S. economy. The purpose of the model is to measure the likely effect of an FTA on capital investment flows, and not on trade in goods. The model measures how much the economy will expand under an FTA depending on different scenarios. It will forecast oil prices, measure changes in investment, account for infrastructure improvements (or lack thereof), and examine the impact of the Mexican debt on investment flows. The study will be completed by August 1991.

#### *Customs Union Study*

The Collegio de Mexico is also analyzing the impact of a possible North American customs union on trade flows between the United States, Mexico, and Canada. The study will be based on theoretical and empirical data and experience from other customs unions.

### *Various Sectoral Studies*

The Collegio de Mexico is conducting sector studies of the impact of an FTA on apparel, agriculture, and transportation services. The apparel study is being conducted in conjunction with Hanson Gordon of MIT, and will likely use MIT's new industrial organization approach. The agriculture study involves a CGE model and will examine the impact of an FTA on agriculture in California, Texas, and parts of Mexico. It is being conducted in conjunction with Tim Josling at U.Cal. Davis. The transportation study also involves a CGE model and will focus on transportation services, including cargo, passenger, trucking, rail, and ships. It is anticipated that these sector studies will be completed by mid-1991.

### **Centro de Estudios Economicos Del Sector Privado (CEESP) [Center for the Economic Studies of the Private Sector]**

CEESP is the economic research arm of Mexico's principal private sector organizations. It is serving as the coordinator of over 80 sector studies being conducted by private business organizations in Mexico. These organizations are surveying industry to provide "diagnoses" of concerns and issues related to the FTA. The "diagnoses" are not being conducted on the basis of formal estimation techniques, but rather on the basis of the experiences and estimates of business representatives involved in each of the sectors. The studies are expected to be completed by February 1991.

### **Clopper Almon, University of Maryland Study**

This study, which was prepared for the U.S. Department of Labor, is discussed above.

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**APPENDIX E**  
**STATISTICAL TABLES**

Table E-1  
Leading U.S. exports to Mexico, 1987-June 1990

(Thousands of dollars)

HTS No.	Description	January-June				
		1987	1988	1989	1989	1990
Total all commodities		14,045,175	19,853,345	24,117,255	11,936,756	13,197,366
870899	Parts and accessories of motor vehicles, nesoi	215,955	268,981	918,806	416,915	809,680
988000	Estimate of under \$1501 data	339,334	459,502	675,707	279,962	520,010
852990	Pts,ex antenna,for trnsmssn,rd,r,radio,tv,etc nesoi	126,365	177,442	557,668	276,096	289,232
870829	Pts & access of bodies of motor vehicles, nesoi	219,141	278,084	454,108	209,071	260,202
100590	Corn (maize), other than seed corn	274,983	388,702	437,030	133,270	253,897
271000	Oil (not crude) from petrol & bitum mineral etc	380,849	296,537	439,174	238,652	227,869
100700	Grain sorghum	62,040	144,160	320,044	164,401	216,805
853890	Pt f elect appr f elect circ; f elct contrl nesoi	63,186	109,713	353,571	162,306	195,021
847330	Parts & accessories for adp machines & units	318,235	421,231	360,408	178,732	189,744
854430	Insulated wiring sets for vehicles ships aircraft	400,955	503,708	474,954	272,894	187,533
850490	Pts for elect transformers static converters induct	66,837	109,842	234,575	102,142	148,383
880240	Airplane & ot a/c, unladen weight > 15,000 kg	45,106	7,923	209,161	51,364	113,001
840991	Spark-ignition int combustion piston engine parts	148,671	197,881	247,311	144,371	108,008
980110	Value of repair/alter articles previous imported	47,953	56,611	314,696	168,195	106,338
854419	Insulated winding wire, nesoi	5,491	5,825	129,506	59,032	105,849
392690	Articles of plastics, nesoi	36,899	58,723	182,134	86,485	105,008
120100	Soybeans, whether or not broken	220,437	350,129	308,896	202,870	92,059
481910	Cartons, boxes & cases corrugated paper & paperbd	59,709	116,371	156,607	80,168	83,212
840999	Spark-ignition reciprocating int com pistn eng pts	176,721	196,327	138,092	65,802	82,065
850300	Pts elec motor, generators,inc sets & rot convert	106,697	186,341	208,039	117,013	80,067
980900	Exports valued not over \$10,000, not identified	154,535	268,281	219,088	124,417	77,849
903290	Pts, autom regulating/controlling inst & apprts	15,993	16,007	141,928	49,272	77,759
870821	Safety seat belts and parts of 8701 to 8705	320	249	136,528	73,539	68,361
853290	Parts for electrical capacitors	37,557	45,044	97,917	36,287	66,066
710812	Gold, nonmonetary, unwrought nesoi	3,016	1,494	82,513	3,618	64,317
540720	Synthetic filament yarn fabric from the strip	8,969	11,929	92,313	47,742	58,892
830160	Parts of locks, base metal	4,881	7,813	98,566	46,546	57,441
940190	Parts of seats (ex medical, barber, dental etc)	5,345	5,691	79,900	24,763	57,004
854011	Cathode-ray tv picture tubes, color inc monitor	16,215	49,280	102,260	53,538	56,503
440710	Coniferous wood sawn, sliced etc, over 6 mm thick	39,770	69,107	98,971	42,242	55,430
Total of items shown		3,602,163	4,808,928	8,270,472	3,911,707	4,813,603
Total other		10,443,012	15,044,416	15,846,783	8,025,049	8,383,763

Note.—Data before 1989 are estimated.

Source: Compiled from official statistics of the US Department of Commerce.  
Top 30 commodities sorted by imports for consumption, customs value in 1990 January-June.

Table E-2

## Leading U.S. imports for consumption from Mexico, 1987-June 1990

(Thousands of dollars)

HTS No.	Description				January-June	
		1987	1988	1989	1989	1990
Total all	commodities	19,765,789	22,617,177	26,556,570	13,226,552	14,189,571
270900	Crude oil from petroleum and bituminous minerals	3,500,836	2,853,843	3,999,140	1,970,552	1,848,901
870323	Pass veh spk-ig int com rcpr p eng >1500 nov 3m cc	1,109,602	1,434,538	1,334,279	781,170	779,209
854430	Insulated wiring sets for vehicles ships aircraft	614,822	888,266	1,051,798	532,762	592,353
980100	Imports of articles exported & returned, no change	569,614	745,454	942,251	427,484	481,043
852810	Color television receivers	337,219	586,472	768,240	370,017	394,708
070200	Tomatoes, fresh or chilled	158,808	150,266	222,316	167,732	336,558
852990	Pts,ex antenna,for trnsmssn,rd,r,radio,tv,etc nesoi	466,200	518,002	625,335	311,728	318,035
010290	Bovine animals, live, nesoi	252,144	262,004	284,226	156,229	215,088
090111	Coffee, not roasted, not decaffeinated	380,431	282,432	434,184	141,983	211,134
870821	Safety seat belts and parts of 8701 to 8705	193,605	248,185	363,714	158,366	208,051
870324	Pass veh spk-ig int com rcpr p eng > 3000 cc	282,598	307,635	372,552	165,056	196,690
870899	Parts and accessories of motor vehicles, nesoi	239,419	397,685	329,992	162,190	180,342
870431	Mtr veh trans gds spk ig in c p eng, gvw nov 5 mtn	88,336	717	118,874	0	141,348
847330	Parts & accessories for adp machines & units	85,504	117,002	276,522	130,384	136,650
999995	Estimated imports of low valued transactions	127,366	149,254	213,273	97,062	136,200
840734	Spark-igntn recprctng piston engine etc > 1000 cc	603,785	490,316	330,381	205,579	133,363
854451	Electrical conductors > 80 but =< 1000v w cntrs	162,665	165,997	241,556	116,747	130,383
710691	Silver, unwrought nesoi	275,890	241,227	337,941	225,936	121,779
853650	Elect switches f voltage not over 1000 v, nesoi	130,760	175,795	175,845	76,499	115,367
070960	Fruits of genus capsicum or pimenta, fresh/chilled	45,592	54,264	87,071	65,451	112,773
271000	Oil (not crude) from petrol & bitum mineral etc	208,156	229,145	121,258	59,530	105,691
852721	Radiobroadcast receivers for motor vehicles w rcos	280,550	426,559	318,413	180,659	98,624
853690	Elect appr f prtct to elect circct nov 1000 v nesoi	16,114	28,992	174,768	73,730	98,580
940120	Seats of a kind used for motor vehicles	33,535	50,299	179,917	94,764	96,823
850140	Ac motors, single-phase	112,991	131,105	171,587	84,365	93,792
852510	Transmission apparatus for radio or television	150,250	159,367	143,926	88,763	90,995
260300	Copper ores and concentrates	41	3,026	40,970	5,170	87,468
847191	Digital process unit with storage, input output un	67,494	131,522	196,355	90,903	77,305
080710	Melons, including cantaloupes & watermelons, fresh	66,788	60,909	92,643	85,199	74,024
901890	Instr & appl f medical surgical dental vet, nesoi	47,355	79,566	121,010	49,762	73,314
	Total of items shown	10,608,470	11,369,844	14,070,334	7,075,771	7,686,590
	Total other	9,157,319	11,247,333	12,486,236	6,150,781	6,502,981

Note—Data before 1989 are estimated.

Source: Compiled from official statistics of the US Department of Commerce.  
Top 30 commodities sorted by imports for consumption, customs value in 1990 January-June.

