The Economic Impact of U.S. Sanctions With Respect to Cuba

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Preface

On April 14, 2000, the United States International Trade Commission (the Commission) instituted investigation No. 332-413, *The Economic Impact of U.S. Sanctions With Respect to Cuba*. The investigation, conducted under section 332(g) of the Tariff Act of 1930, was in response to a request from the Committee on Ways and Means, U.S. House of Representatives (see appendix A).

The purpose of this investigation is to assess the impact of the U.S. sanctions with respect to Cuba on both the U.S. and the Cuban economies. In particular, the Committee on Ways and Means requested that the Commission's report provide an overview of U.S. sanctions with respect to Cuba; a description of the Cuban economy, and its trade and investment policies and trends; an analysis of the historical impact of U.S. sanctions on both the U.S. and Cuban economies, especially on affected sectors and, to the extent possible, on U.S. exports, imports, employment, consumers, and investment; and an evaluation of the current impact on U.S.-Cuban bilateral trade, investment, employment, and consumers of the economic sanctions on trade and investment with Cuba, with particular attention to the effects on U.S. services, U.S. agriculture, and other sectors for which the impact is likely to be significant. The Commission has made no assumptions in this investigation regarding any possible future policy changes in Cuba. This report does not address trade in military goods and services or trade in goods, services, and technology subject to export controls relating to U.S. national security interests—all areas not traditionally monitored by the Commission.

The Commission solicited public comment for this investigation by publishing a notice in the *Federal Register* of April 24, 2000 (see appendix B) and holding a public hearing on September 19-20, 2000.

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Executive Summary

On March 15, 2000, the Committee on Ways and Means, U.S. House of Representatives (the Committee), requested the U.S. International Trade Commission (the Commission) to examine and report on the economic impact of U.S. sanctions with respect to Cuba. The Committee requested that the Commission's report provide:

- an overview of U.S. sanctions with respect to Cuba;
- a description of the Cuban economy, Cuban trade and investment policies, and trade and investment trends;
- an analysis of the historical impact of U.S. sanctions on both the U.S. and Cuban economies, especially on affected sectors and, to the extent possible, on U.S. exports, imports, employment, consumers, and investment; and
- an evaluation of the current impact of U.S. sanctions on U.S.-Cuban bilateral trade, investment, employment, and consumers, with particular attention to the effects on U.S. services, U.S. agriculture, and other sectors for which the impact is likely to be significant.

The historical impact of U.S. sanctions with respect to Cuba on the U.S. and the Cuban economies is assessed for the time period from 1960 through the 1996 implementation of Cuban Liberty and Democratic Solidarity Act (CLDSA, also known as the Helms-Burton Act), as that act was the most recent change made to U.S. sanctions with respect to Cuba prior to the institution of this report.

The current impact of U.S. sanctions on the U.S. and the Cuban economies is assessed for the time period after 1996. To assess this, the Commission analyzed the economic impact of what estimated U.S.-Cuban bilateral trade and investment flows might have been in the absence of U.S. sanctions.

Baseline trade data used were Cuba's average annual trade with the world during 1996-98, the most recent period for which such data were available. The Commission estimated expected U.S.-Cuban bilateral trade and foreign exchange flows in the absence of U.S. sanctions using data obtained from an analysis of the Cuban economy; factfinding travel in the United States and in Cuba by USITC staff; a public hearing on September 19-20, 2000, and written submissions from the public; an informal telephone survey of over 200 U.S. companies and associations; a review of the relevant economic literature; and an econometric analysis.

The Commission has made no assumptions in this report regarding any possible future policy changes in Cuba. This report does not address trade in strictly military goods and services or trade in goods, services, and technology subject to export controls relating to U.S. national security interests—all areas not traditionally monitored by the Commission.

Historical and Current Impact on the U.S. Economy

- U.S. economic sanctions with respect to Cuba had a minimal overall historical impact on the U.S. economy. Despite the relatively small size of its economy, Cuba was an important U.S. trade partner in the 1950s. U.S.-Cuban economic relations deteriorated significantly before comprehensive U.S. economic sanctions were implemented in reaction to political events in Cuba in the late 1950s. With most U.S. economic assets in Cuba expropriated by the Castro government during 1959-60, the U.S. economic sanctions of October 1960 and comprehensive sanctions of February 1962 appear to have caused few additional costs for the U.S. economy. Even with massive economic assistance from the Soviet Union during 1960-89, Cuba remained a small global market relative to other Latin American countries.

- The Cuban Government signed its first major trade agreement with the Soviet Union in 1960, and had seized almost all U.S. property in Cuba before comprehensive U.S. economic sanctions were imposed in 1962. Between 1960 and the late 1980s, Cuba's relatively closed economy relied extensively on economic assistance from, and long-term economic agreements with, the Soviet bloc countries and China.

- The Commission estimates that U.S. exports to Cuba in the absence of sanctions, based on average 1996-98 trade data, would have been approximately $658 million to $1.0 billion annually; this is equivalent to about 17 to 27 percent of Cuba's total imports from the world, or less than 0.5 percent of total U.S. exports (table ES-1). This estimate would increase marginally, to $684 million to $1.2 billion, if U.S. exports were to increase by the amount of estimated additional net foreign exchange flows from the United States to Cuba from telecommunication services payments, travel and tourism payments, and U.S. foreign direct investment.

- Estimated U.S. imports from Cuba in the absence of sanctions, based on average 1996-98 trade data and excluding sugar (U.S. sugar imports are government-regulated), would have been approximately $69 million to $146 million annually; this is equivalent to about 7 to 15 percent of total Cuban exports to the world, or less than 0.5 percent of total U.S. imports (table ES-2).

Historical and Current Impact on the Cuban Economy

- U.S. economic sanctions with respect to Cuba generally had a minimal overall historical impact on the Cuban economy. Cuba adjusted quickly to U.S.

economic sanctions through political and economic the alliance with the Soviet bloc countries. Soviet economic assistance, which peaked at nearly $6 billion annually in the 1980s, largely offset any adverse effects of U.S. sanctions and enabled the Cuban economy to grow.

- The loss of Soviet economic assistance after 1990 caused a severe downturn in the Cuban economy, bringing to the forefront longstanding inefficiencies in the Cuban economy. The loss of Soviet assistance eventually forced Cuba to introduce economic reforms to attract foreign investment, and selective economic liberalization to stimulate domestic production.

- Despite the close geographic proximity that would appear to make the United States and Cuba natural trading partners, bilateral economic relations in the absence of sanctions could be limited for several reasons. For example, production constraints limit Cuba's near-term export potential; foreign exchange constraints limit Cuba's import purchasing power; and Cuba's investment regime remains restrictive. Cuba also tends to select its trade and investment partners based on political considerations—the desire to maintain economic ties with existing partners and to avoid becoming economically dependent on a single country—rather than economic cost factors. Productivity constraints likely would limit Cuba's near term ability to increase production of its main export products—Cuba would have to reduce sales to other countries in order to export to the United States. Similarly, Cuba's lack of foreign exchange would mean that Cuban imports of U.S. goods most likely would displace imports of similar goods from other countries.

- The Cuban Government estimates that the cumulative cost of U.S. economic sanctions on the Cuban economy was $67 billion through 1998, including such costs as reduced trade and tourism, higher shipping costs, inability to procure spare parts, frozen bank accounts, foreign debt problems, and emigration of skilled workers. That estimate does not factor in the cumulative value of Soviet bloc economic assistance provided since 1960.

Impact of Sanctions on U.S. and Cuban Economic Sectors

Services

- *Air transportation.* U.S. economic sanctions had a small but measurable adverse historical impact on U.S. airline revenue and employment. Industry sources estimate that annual revenues from regularly-scheduled passenger service to Cuba in the absence of sanctions would account for no more than 1 percent of total passenger revenues of U.S. airlines. U.S. airports estimate that they would benefit from increased revenues if U.S. airlines were able to provide regularly-scheduled service to Cuba. Cuban Government officials

reported that U.S. economic sanctions have resulted in higher costs for U.S.-manufactured aircraft components. Cuba has renovated its largest airports with the help of foreign investment; those airports probably would benefit from increased revenue and employment as a result of the operation of regularly scheduled flights to and from the United States in the absence of sanctions.

- *Maritime transportation*. Sanctions had an adverse historical impact on several U.S. sea ports. The port of New Orleans took nearly 10 years to replace the volume of cargo that it had shipped to Cuba. Florida ports, including the Port of Jacksonville and Port Everglades, also reported a similar adverse impact. U.S. ports, shipping lines, and cruise lines most probably would benefit in the absence of sanctions, and additional U.S. longshoremen jobs would be created. Cuban officials reported that U.S. sanctions, by restricting the operation of U.S.- and foreign-flag vessels with respect to Cuba, have increased Cuba's shipping costs and deterred vessels of foreign shipping lines from docking in Cuban ports. Cuba's ports and merchant fleet also would probably benefit from increased shipping in the absence of sanctions.

- *Banking and insurance*. Sanctions did not have a significant direct historical impact on U.S. financial services firms because Cuba had expropriated them before sanctions were imposed. Cuba is a small market for financial services, and U.S. financial services firms most probably would not make significant investments in Cuba in the absence of sanctions because of Cuban restrictions on foreign investment. Cuban banks and insurance firms are unlikely to be significantly affected in the absence of U.S. sanctions.

- *Construction*. The U.S. construction services industry participated in a wide range of infrastructure projects in Cuba prior to the imposition of sanctions. After sanctions were imposed, U.S. construction firms were replaced by Soviet and, more recently, Canadian and European firms. The historical impact of the sanctions on the U.S. industry was small, given the small size of the Cuban economy, limited business opportunities in Cuba, and alternative opportunities elsewhere in Latin America. U.S. industry sources report that their concerns about Cuba's ability to finance major construction projects make it unlikely that the United States would become a significant exporter of such services to Cuba in the absence of sanctions.

- *Telecommunications*. The United States never completely severed telecommunications links with Cuba, and a small number of U.S. companies currently provide certain telecommunications services to Cuba. U.S. sanctions reportedly have had a large negative effect on the Cuban telecommunication industry, which functions with an antiquated and poorly maintained domestic infrastructure. U.S. telecommunications providers most probably would attempt to increase their participation in the Cuban market if U.S. sanctions were removed, although market opportunities may be limited because

telecommunications providers of other countries already have made significant inroads in the Cuban market. A Cuban-Italian joint venture company has a 12-year exclusive agreement to provide basic telecommunication services in Cuba. Another Cuban joint venture company with Canadian investors has a 20-year exclusive agreement to provide analog and digital cellular service to Cuba.

- *Tourism*. Sanctions had a minimal direct historical impact on the U.S. tourism industry because U.S. properties were expropriated before sanctions were imposed and Cuba's tourism sector suffered due to a declining number of U.S. visitors in the late 1950s. Cuba gave a low priority to the tourism sector between 1960 and the early 1980s. Since the late 1980s, however, the Cuban Government has targeted tourism as a priority sector for its ability to generate foreign exchange. U.S. sanctions prevent U.S. investors from participating in the joint venture arrangements Cuba has awarded to European, Canadian, and Caribbean partners. U.S. industry sources estimate that 1 million U.S. tourists annually could visit Cuba in the absence of sanctions, which could benefit U.S. tourism service providers if they are able to enter the Cuban market.

Agriculture

- *Meat and dairy*. Sanctions had a small historical impact on the U.S. livestock and dairy sectors. It is estimated that U.S. exports of beef, pork, and poultry to Cuba in the absence of sanctions would have totaled $62 million to $76 million annually (or 1 percent of total U.S. meat exports), based on average 1996-98 trade data. In addition, estimated U.S. exports of dairy products to Cuba, in the absence of sanctions, would have totaled $4 million to $12 million annually (or 1 to 3 percent of total U.S. dairy exports). Sanctions had a small historical impact on Cuba's meat and dairy sectors because Cuba was able to find other suppliers, but at somewhat higher prices. Cuban production is not competitive internationally, and would make only small gains in the absence of sanctions.

- *Wheat*. Prior to the imposition of sanctions, the United States supplied most Cuban wheat imports. However, owing to the small share of U.S. exports going to Cuba and the ability of U.S. exporters to find alternative markets, the overall historical impact of sanctions on the U.S. wheat industry was small. In the absence of sanctions, U.S. exporters would be able to take market share away from current suppliers to the Cuban market (e.g., France, Argentina, and Canada), and thus the current impact of sanctions on the U.S. wheat industry is fairly significant. It is estimated that U.S. wheat exports to Cuba in the absence of sanctions would total $34 million to $52 million annually, representing 40 to 60 percent of Cuban wheat imports in the short term. This change would increase U.S. exports by 1 percent of the value of 1996-98 U.S. wheat exports.

- *Rice*. During 1955-58, Cuba was the leading market for U.S. rice exports (purchasing about 25 percent of U.S. rice exports). Thus, historically the loss of the Cuban market had a significant impact on the U.S. rice industry, although over time U.S. exporters were able to ship to other countries, but frequently only with official U.S. export assistance. The current impact of sanctions on the U.S. rice industry is significant, indicating that U.S. exporters would be highly competitive with current suppliers (Thailand, China, and Vietnam) to the Cuban market in the absence of sanctions. In the absence of sanctions, it is estimated that U.S. exports of rice to Cuba would total $40 million to $59 million annually, based on average 1996-98 trade data, representing 40 to 60 percent of Cuban rice imports in the short term, mostly at the expense of Thailand. This change would increase exports by 4 to 6 percent of the value of 1996-98 U.S. rice exports.

- *Feedgrains.* U.S. sanctions had a minimal effect on U.S. feedgrain production and export levels and posed few problems for the U.S. corn and feedgrain industry. Prior to the implementation of U.S. economic sanctions, Cuba's grain-fed livestock sector was rather small, and the United States supplied Cuba with negligible amounts of corn and feed grain. In the absence of sanctions, the U.S. feedgrain industry is likely to be highly competitive in the Cuban market, particularly in corn and sorghum. In the absence of sanctions, it is estimated, based on 1996-98 annual average trade data, that U.S. exports of feedgrain to Cuba would total $9 million to $10 million annually (less than 0.5 percent of total U.S. feedgrain exports), representing 90 to 100 percent of Cuban feedgrain imports.

- *Animal feed.* Although Cuba was a leading market for certain U.S. feed exports, the historical impact of sanctions on the U.S. animal feed industry has been small. Since the imposition of sanctions, the United States found other markets for animal feed, particularly Japan, Canada, and the EU. The current impact of sanctions is to deny U.S. exporters access to a growing Cuban market for animal feed ingredients (particularly vegetable meals and oilseed meals) that resulted from the significant expansion in the Cuban hog sector. In the absence of sanctions, it is estimated that U.S. exports of animal feed to Cuba would total $42 million to $48 million annually (or 1 percent of total U.S. animal feed exports), based on average 1996-98 trade data, representing 80 to 90 percent of Cuban animal feed imports.

- *Fats and oils.* Prior to the sanctions, the United States supplied most Cuban imports of fats and oils. Thus the historical impact of sanctions was significant initially for the U.S. fats and oils industry, particularly for the animal fats industry. However, over time U.S. exporters were able to find alternative markets. In the absence of sanctions, the U.S. fats and oils industry stands to export lard, tallow, and vegetable oil to Cuba, taking a substantial share of Cuban imports away from competing countries such as Argentina and Brazil. In the absence of sanctions, it is estimated that U.S. exports of fats and oils to Cuba would total $29 million to $33 million annually (or 1 percent of total U.S.

fats and oils exports), representing 80 to 90 percent of Cuban fats and oils imports.

- *Dry beans*. Overall the historical impact of sanctions on the U.S. dry bean industry has been small. Although the loss of the Cuban market initially posed a significant problem for the industry, over time exporters were able to ship to other countries. In the absence of sanctions, the U.S. dry bean industry would probably export black beans, pinto beans, and white beans to Cuba, reducing market share of Canada, China, and Australia. It is estimated that U.S. exports of dry beans to Cuba in the absence of sanctions would total $13 million to $26 million annually (or 4 to 8 percent of total U.S. dry bean exports), or approximately 20 to 40 percent of Cuban dry bean imports.

- *Cotton*. Sanctions had a small overall historical impact on U.S. cotton production and exports. Close geographic proximity makes U.S. cotton producers natural suppliers for the Cuban market, and U.S. producers could satisfy all of Cuba's cotton demand without difficulty. Sanctions prevented U.S. cotton exports to Cuba as the Cuban textile and clothing industries expanded in the 1960s through the 1980s. It is estimated that U.S. exports of cotton to Cuba in the absence of sanctions would have been $6 million to $8 million annually (less than 0.5 percent of total U.S. cotton exports), based on average 1996-98 trade data, or approximately 50 to 70 percent of Cuban cotton imports.

- *Winter vegetables*. U.S. sanctions initially benefitted the U.S. winter vegetables industry, which is concentrated in Florida. That benefit dissipated over time, however, as imports from Mexico and other countries increased. The U.S. industry most probably would receive a small benefit in the absence of sanctions, as Cuba probably would import fresh vegetables from the United States to supply its growing tourism sector (valued at $250,000 to $500,000 annually, or less than 0.5 percent of total U.S. winter vegetable exports). Sanctions had little historical impact on Cuban production and consumption of winter vegetables. Cuban production could increase as a result of U.S. investment and access to U.S. technology in the absence of sanctions. Current Cuban output and export potential is constrained by a lack of foreign exchange to obtain inputs such as fertilizer and pesticides. In the longer term the U.S. industry most probably would be adversely affected in the absence of sanctions as Cuba becomes better positioned to take full advantage of its available land and low-cost labor. It is estimated that U.S. imports of fresh winter vegetables from Cuba would total $30,000 to $60,000 annually in the short term in the absence of sanctions, based on average 1996-98 trade data (less than 0.5 percent of total U.S. imports of winter vegetables).

- *Tropical fruit*. The United States was Cuba's primary export market for tropical fruits in the 1950s. Sanctions generally had a positive historical impact on the U.S. economy as growers who immigrated from Cuba during

the early 1960s set up operations in southern Florida, effectively establishing the U.S. industry. Sanctions had a minimal historical impact on Cuba, which shifted exports to the Soviet Union. Current Cuban output and export potential is constrained by a lack of foreign exchange for inputs such as fertilizer and pesticides. The United States most probably would benefit in the absence of sanctions, as Cuba probably would import U.S. tropical fruit to supply its tourism sector, valued at $40,000 to $72,000 annually (less than 0.5 percent of total U.S. tropical fruit exports). However, in the longer run the U.S. industry probably would be adversely affected in the absence of sanctions as Cuba becomes better positioned to take fuller advantage of its resource endowments with respect to available land and low-cost labor. It is estimated that U.S. imports of tropical fruit from Cuba would total $90,000 to $180,000 annually in the short term in the absence of sanctions, based on average 1996-98 trade data (less than 0.5 percent of total U.S. tropical fruit imports).

- *Citrus fruit.* Cuba is an important grower and exporter of citrus products. Sanctions reportedly benefitted the U.S. citrus industry by restricting competition from Cuban citrus—mainly fresh grapefruit, orange juice, grapefruit juice, and limes. U.S. consumers and the U.S. citrus industry probably would be affected in the absence of U.S. sanctions with respect to Cuba. It is likely that Florida grapefruit producers would face the potential of an influx of Cuban grapefruits several weeks prior to the start of the Florida season, which would probably lead to lower U.S. prices. The full impact for fresh citrus would take several years to develop because Cuban fruit would have to meet strict U.S. phytosanitary standards, and the Cuban industry would need investment capital and time to reach its full potential. Several foreign investors already are working to expand Cuba's citrus export industry. It is estimated that U.S. imports of citrus fruit from Cuba would total between $9 million and $23 million annually in the absence of sanctions (or 2 to 6 percent of total U.S. imports of citrus fruit), based on average 1996-98 trade data.

- *Sugar.* Sugar is Cuba's most important agricultural export. In 1959, Cuba exported 2.9 million metric tons of sugar to the United States, received 72 percent of the U.S. import quota for sugar, and supplied 35 percent of the total U.S. sugar imports. The historical impact of the U.S. sanctions was minimal because both the United States and Cuba adjusted quickly—the United States allocated Cuba's sugar quota to other Latin American and Caribbean countries, while Cuba sold the bulk of its sugar to the Soviet bloc countries. In the absence of sanctions, Cuba's status with respect to the U.S. sugar program would be uncertain. If Cuba were included in the current tariff-rate quota (TRQ) regime, Cuba's access is not likely to be on the scale to which Cuba was accustomed before the sanctions. If Cuba were not included in the current TRQ regime, Cuban sugar exports to the United States would be zero and would therefore have no impact on the U.S. sugar industry. As with sugar from any other non-quota-holding country, Cuban sugar would be

dutiable at the over-quota tariff rate for raw sugar of 242 percent ad valorem equivalent, which given current world market prices is prohibitive.

- *Distilled spirits*. Cuba was the second largest supplier of rum to the United States after Jamaica prior to the imposition of U.S. sanctions. After sanctions were imposed, shipments from Jamaica and other sources quickly increased to offset the loss of Cuban shipments. The historical impact of sanctions on U.S. consumers was small in terms of availability of supply and prices. U.S. economic sanctions had a severe adverse impact on the Cuban distilled spirits industry. Sanctions caused Cuba to lose its largest rum export market, exacerbating other problems in the Cuban industry caused by the emigration of several Cuban company owners after the Castro government came to power that left a void in marketing knowledge, technical expertise, and capital in Cuba. It is estimated that U.S. imports of distilled spirits from Cuba would total $15 million to $25 million annually (or 1 percent of total U.S. imports of distilled spirits) in the absence of sanctions, based on average 1996-98 trade data.

- *Cigars*. Prior to the imposition of sanctions, Cuba was nearly the exclusive foreign supplier of cigar tobacco. Sanctions forced the U.S. industry into a major and costly restructuring program, and U.S. cigar companies were forced to develop alternative supply sources. The historical impact on the Cuban industry was small as Cuba was able to find alternative markets, principally in Europe. It is estimated that U.S. imports of cigars from Cuba in the absence of sanctions could total $15 million to $30 million annually (or 5 to 10 percent of total U.S. imports of cigars), based on average 1996-98 trade data.

- *Seafood*. Sanctions caused no measurable effects on U.S. seafood exporters because Cuba was a small U.S. seafood trading partner. Sanctions had a significant negative impact on U.S. demand for Cuban seafood exports. The loss of the U.S. market forced Cuba to find new export markets such as Spain, France, and Japan which, because of their distance, raised Cuban transportation costs. It is estimated that U.S. seafood exports to Cuba in the absence of sanctions would total $1 million to $2 million annually (less than 0.5 percent of total U.S. exports of seafood), based on average 1996-98 trade data, most of which would be destined for Cuba's tourism sector. U.S. imports of Cuban seafood would total $5 million to $11 million annually (less than 0.5 percent of total U.S. seafood imports), increasing competition primarily for the Florida fish industry.

Intermediate and Manufactured Goods

- *Fertilizers and pesticides*. The historical impact of sanctions was small because, although Cuba was a small but important outlet for U.S. fertilizers and pesticide products at the time sanctions were imposed, U.S. exporters

were able to find alternative markets for their products relatively quickly. The current impact of sanctions on the U.S. fertilizer and pesticide industries is small but measurable. It is estimated that the U.S. fertilizer exports to Cuba in the absence of sanctions would total $8 million to $15 million annually (less than 0.5 percent of total U.S. fertilizer exports), or 10 to 20 percent of Cuba's total imports. If Cuban agricultural production were to increase, Cuban demand for pesticide products, including imports from U.S. companies, probably would increase. In the absence of sanctions, U.S. exports of pesticide products would be small, at most $4 million in the short term.

- *Pharmaceuticals*. Sanctions had a minimal historical impact on the U.S. pharmaceuticals industry given the small size of the Cuban market and access to alternative suppliers. In the absence of sanctions, U.S. pharmaceutical exports would probably be small (zero to $1 million). Onerous licensing restrictions and health and safety regulations of the Cuban government most probably would impede some U.S. exports. Although Cuba had access to pharmaceutical products from other countries, U.S. sanctions provided an impetus for Cuba to develop an indigenous biotechnology industry.

- *Textiles and apparel*. Sanctions generally had a minimal historical impact on the U.S. textiles and apparel industry, which found alternate markets for their products. It is estimated that U.S. exports of textiles and apparel to Cuba in the absence of sanctions would total $6 million to $9 million annually (less than 0.5 percent of total U.S. textile and apparel exports) in the absence of sanctions, based on average 1996-98 trade data. U.S. companies reportedly might consider establishing sewing operations in Cuba because of its proximity to the United States, skilled and educated workforce, and low labor wage rates. Sanctions initially impeded the operations of the Cuban textiles and apparel industry by eliminating a key source of raw and intermediate materials and machinery. The Cuban industry was aided by Soviet assistance through the 1980s; however, Cuban textile production has declined substantially since the loss of Soviet assistance.

- *Steel*. The historical impact of sanctions on the U.S. steel industry was small, as U.S. producers quickly found alternate markets for their products. In the absence of sanctions, U.S. exports of steel products to Cuba most probably would be small. Sanctions had little, if any, impact on Cuba because steel is readily available on world markets. Cuba has developed a small steel industry with a product line limited to commodity-type long products, primarily concrete reinforcing bar, and exports about 60 percent to 80 percent of its production, primarily to the Caribbean and Central America. In the absence of sanctions, it is estimated that U.S. imports of steel products from Cuba would total no more than about $11 million annually (less than 0.5 percent of total U.S. imports of steel).

- *Nickel and cobalt*. The United States produces no primary nickel and cobalt, while Cuba is one of the world's major nickel and cobalt regions in terms of

proven reserves. The historical impact of sanctions has been higher prices paid by U.S. consumers who must purchase nickel-containing products, such as stainless steel and nickel alloy products, from more distant suppliers such as Norway, Australia, and Russia, and cobalt products from Norway, Finland, Zambia, and Congo. Sanctions prohibit U.S. imports of Cuban-origin nickel from countries such as Canada that process it. In the absence of sanctions, it is likely that the United States would import Cuban-origin nickel and cobalt products from Canada (valued at between $55 million and $71 million annually).

- *Machinery and transportation equipment.* The historical impact of sanctions on U.S. industries was minimal, as alternate markets were easily located. It is estimated that U.S. exports of machinery in the absence of sanctions would total $120 million to $154 million annually (less than 0.5 percent of total U.S. machinery exports), based on average 1996-98 trade data. U.S. exports of U.S. transportation equipment would probably total $43 million to $55 million annually (less than 0.5 percent of total U.S. transportation equipment exports). The historical impact of sanctions on Cuba was significant, particularly during the 1960s, as Cuba was denied access to U.S. spare and replacement parts. Cuba eventually replaced and added machinery and transportation equipment, first from the Soviet bloc countries and later from Europe and Japan.

- *Power generation machinery.* Sanctions had a minimal historical impact on U.S. producers, who were able to find alternate markets for their products. In the absence of U.S. sanctions, exports of U.S.-made power generation machinery most likely would be small because of U.S. industry concerns about the Cuban regulatory environment. The historical impact of sanctions on Cuba was minimal, as the Soviet bloc countries provided Cuba with subsidized oil and technical and financial assistance. Most of Cuba's power generation capability relies on old, inefficient facilities in need of upgrading, and a small number of joint venture projects with foreign investors are underway. However, the current Cuban regulatory environment would remain an obstacle to significant U.S. participation even in the absence of U.S. sanctions.

- *Electronics goods.* Sanctions had little historical impact on U.S. electronics goods companies because Cuba was a small market and alternative customers were quickly located. It is estimated that U.S. exports of electronics goods to Cuba in the absence of sanctions would be less than $20 million annually (less than 0.5 percent of total U.S. electronics goods exports), based on average 1996-98 trade data. Sanctions prevented Cuba from purchasing equipment compatible with U.S. equipment installed prior to 1960, and have limited Cuba's access to the latest technologies. This has been a significant problem in the area of telecommunications equipment. Cuba has developed limited production capabilities that would pose no competitive threat to U.S. firms in the absence of sanctions.

- *Medical equipment.* The historical impact of sanctions on U.S. sales and employment was minimal because Cuba was a small market for U.S. medical goods. Some U.S. firms that already export to Latin American countries report

that they would probably export small amounts to Cuba in the absence of sanctions. It is estimated that U.S. exports of medical equipment to Cuba in the absence of sanctions would total $6 million to $8 million annually (less than 0.5 percent of total U.S. medical equipment exports), based on average 1996-98 trade data. Sanctions generally had a small impact on Cuba, which was forced to obtain medical equipment from the Soviet bloc countries, Europe, and Asia, although Cuba may have faced higher prices and a less competitive marketplace without access to U.S. products.

- *Cement.* Sanctions limited U.S. access to nearby cement supplies, and forced U.S. consumers to pay somewhat higher prices as imports were obtained from more distant suppliers in Europe and Asia. Sanctions had no measurable historical impact on Cuba. In the absence of sanctions, it is estimated that 75 to 95 percent of Cuban cement exports would be directed to the U.S. market, equivalent to $19 million to $24 million annually (or 2 to 3 percent of total U.S. cement imports), based on average 1996-98 trade data. Given the high transportation costs associated with cement trade, most of the impacts would be felt in U.S. southern states.

- *Plastics.* Sanctions had a minimal impact on the U.S. plastics industry. It is estimated that the U.S. plastics industry could supply as much as 10 percent of Cuban imports in the absence of sanctions, equivalent to about $4 million annually (less than 0.5 percent of total U.S. plastics exports) based on average 1996-98 trade data. Although there was a small plastics industry in Cuba prior to 1958, the development of that industry continues to be impeded by Cuba's lack of access to modern technologies and limited access to chemical feedstocks derived from petroleum.

- *Tires.* Sanctions had a small impact on the U.S. tire industry as manufacturers were able to find alternative markets for their products in Latin America and Asia. It is estimated that U.S. exports of tires to Cuba in the absence of sanctions would total $21 million to $25 million annually (or 1 percent of total U.S. tire exports), based on average 1996-98 trade data. Sanctions had a small historical impact on Cuba and do not appear to have significantly affected the Cuban tire industry.

- *Sporting goods.* Sanctions had no measurable impact on the U.S. sporting goods industry. Sanctions denied potential Cuban customers access to high quality U.S.-made sporting goods, forcing Cuba to import certain types of high-end sporting goods from Europe. It is estimated that U.S. exports of high-end, premium quality sporting goods (for top-level Cuban athletic teams, particularly those involved in international competition) would probably total $1 million to $2 million annually in the absence of sanctions (less than 0.5 percent of total U.S. sporting goods exports), based on average 1996-98 trade data. Cuban sporting goods would not likely be competitive in the U.S. market without significant foreign investment.

Table ES-1
Estimated annual U.S. exports to Cuba in the absence of U.S. sanctions (based on average 1996-98 trade data)

Sector	Cuban imports from the world, 1996-98 average	Estimate of U.S. share of Cuban imports	Estimate of U.S. exports to Cuba	Estimate of Cuban share of total U.S. exports, 1996-98 average
	Million dollars	*Percent*	*Million dollars*	*Percent*
Selected agricultural products				
Meat	95	65-80	62-76	1
Dairy	82	5-15	4-12	1-3
Wheat	86	40-60	34-52	1
Rice	99	40-60	40-59	4-6
Feedgrains	10	90-100	9-10	(1)
Animal feed	53	80-90	42-48	1
Fats and oils	37	80-90	29-33	1
Dry beans	64	20-40	13-26	4-8
Cotton	12	50-70	6-8	(1)
Winter vegetables	(2)	(2)	(3)	(1)
Tropical fruit	(2)	(2)	(3)	(1)
Seafood	21	5-10	1-2	(1)
Total[4]	559	43-58	241-327	1
Selected intermediate and manufactured goods				
Fertilizer	75	10-20	8-15	(1)
Pesticide	41	0-10	0-4	(1)
Pharmaceuticals	26	0-5	0-1	(1)
Textiles and apparel	60	10-15	6-9	(1)
Steel	121	(1)	(3)	(1)
Machinery	342	35-45	120-154	(1)
Transportation equipment	123	35-45	43-55	(1)
Power generation machinery.	78	(1)	(3)	(1)
Electronics goods	169	0-10	0-17	(1)
Medical equipment	12	50-70	6-8	(1)
Plastics	42	0-10	0-4	(1)
Tires	33	65-75	21-25	1
Sporting goods	5	20-30	1-2	(1)
Total[5]	1,127	18-26	204-294	(1)
Other products[6]	2,129	10-20	213-426	(1)
Grand total	3,815	17-27	658-1,047	(1)

[1] Less than 0.5 percent.
[2] Not available.
[3] Less than $500,000.
[4] Represents over 90 percent of total Cuban imports of agricultural products.
[5] Represents about one third of total Cuban imports of intermediate and manufactured goods.
[6] "Other products" consist of miscellaneous imports of Cuba, mostly of intermediate and manufactured goods, for which the Commission has not made separate determinations of potential U.S. exports. These include, but are not limited to, miscellaneous edible products; cork and wood, and products made therefrom; miscellaneous textile fibers; coal; petroleum and petroleum products; natural gas, organic and inorganic chemicals; dyes and paints; perfumes and cosmetics; herbicides, rubber products other than tires, paper and cardboard; stone, clay, and glass; non-ferrous metals; manufactured metal products; construction materials and fixtures; furniture; travel goods; footwear; professional instruments other than medical equipment; watches and clocks; and other miscellaneous manufactures.

Source: 1996-98 average annual base value of Cuban trade data from various sources (see appendix G). Estimated U.S. share of Cuban trade and estimated U.S.–Cuban trade data are derived from USITC estimates and the USITC gravity model.

Table ES-2
Estimated annual U.S. imports from Cuba in the absence of U.S. sanctions (based on average 1996-98 trade data)

Sector	Cuban exports to the world, 1996-98 average	Estimate of U.S. share of Cuban exports	Estimate of U.S. imports from Cuba	Estimate of Cuban share of total U.S. imports, 1996-98 average
	Million dollars	*Percent*	*Million dollars*	*Percent*
Selected agricultural products				
Winter vegetables	([1])	45-90	([1])	([2])
Tropical fruit	([1])	25-45	([1])	([2])
Citrus fruit	46	20-50	9-23	2-6
Sugar	860	([3])	([3])	([3])
Distilled spirits	100	15-25	15-25	1
Cigars	99	15-30	15-30	5-10
Seafood	109	5-10	5-11	([2])
Total[4]	1,214	[5]13-25	[5]45-89	([2])
Selected intermediate and manufactured goods				
Pharmaceuticals	36	0-5	0-2	([2])
Textiles and apparel	5	10-15	0-1	([2])
Steel	44	0-25	0-11	([2])
Nickel and cobalt	391	0	0	([2])
Cement	25	75-95	19-24	2-3
Total[6]	501	4-7	19-37	([2])
Other products[7]	101	5-20	5-20	([2])
Grand total	1,817	[5]7-15	[5]69-146	([2])

[1] Less than $500,000.

[2] Less than 0.5 percent.

[3] Not available.

[4] Represents over 95 percent of total Cuban exports of agricultural products.

[5] Estimate excludes sugar.

[6] Represents over 85 percent of total Cuban exports of intermediate and manufactured goods.

[7] "Other products" consist of miscellaneous exports of Cuba for which the Commission has not made separate determinations of potential U.S. imports. These include, but are not limited to, coffee; tobacco products other than cigars; miscellaneous chemical products; non-ferrous metals; manufactured metal products; miscellaneous machinery; travel goods; and other miscellaneous manufactures.

Note.—Totals may not add due to rounding.

Sources: 1996-98 average annual base value of Cuban trade data from various sources (see appendix G). Estimated U.S. share of Cuban trade and estimated U.S.–Cuban trade data are derived from USITC estimates and the USITC gravity model.

CHAPTER 1
Introduction

Purpose and Scope of the Report

This report analyzes the economic impact of U.S. sanctions with respect to Cuba on both the U.S. and the Cuban economies. The U.S. International Trade Commission (USITC, or the Commission) instituted this fact-finding investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) following receipt of a letter of request from the Committee on Ways and Means, U.S. House of Representatives (the Committee), on March 15, 2000.[1]

In its letter, the Committee requested the Commission to provide:

- an overview of U.S. sanctions with respect to Cuba;
- a description of the Cuban economy, Cuban trade and investment policies, and trade and investment trends;
- an analysis of the historical impact of U.S. sanctions on both the U.S. and Cuban economies, especially on affected sectors and, to the extent possible, on U.S. exports, imports, employment, consumers, and investment; and
- an evaluation of the current impact on U.S.-Cuban bilateral trade, investment, employment, and consumers of the economic sanctions on trade and investment with Cuba, with particular attention to the effects on U.S. services, U.S. agriculture, and other sectors for which the impact is likely to be significant.

The United States maintains economic sanctions with respect to Cuba for specific U.S. policy goals.[2] The Commission has made no assumptions in this report regarding any possible future policy changes in Cuba. This report does not address trade in military goods and services or trade in goods, services, and technology subject to export controls relating to U.S. national security interests—all areas not traditionally monitored by the Commission.

On October 28, 2000, President Clinton signed Public Law 106-387 that wrote into law the Trade Sanctions Reform and Export Enhancement Act of 2000. That law

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[1] A copy of the request letter appears as Appendix A of this report. The *Federal Register* notice of institution for this investigation appears as Appendix B.

[2] For a statement of official U.S. Government policy with respect to Cuba, see "U.S.-Cuba Relations," at *http://www.state.gov/www/regions/wha/cuba/policy.html*, retrieved Nov. 13, 2000.

authorizes certain sales of food, medicines, and certain medical equipment to a number of countries, including Cuba, currently subject to U.S. economic sanctions. The possible economic effects of this new law are outside the scope of this investigation.

Approach of the Report

U.S. economic sanctions with respect to Cuba were implemented beginning in 1960. The historical impact of U.S. sanctions with respect to Cuba on the U.S. economy is assessed for the period beginning in 1960 through the 1996 implementation of Cuban Liberty and Democratic Solidarity Act, also known as the Helms-Burton Act after its main Congressional sponsors,[3] was the most recent change made to U.S. sanctions with respect to Cuba prior to the institution of this report.

The economic collapse and breakup of the Soviet Union terminated massive Soviet economic assistance for Cuba, and forced the Cuban Government to significantly alter its economic policies in the 1990s. For this reason, the historical impact of U.S. sanctions on the Cuban economy is assessed for the time period 1960-89 and, separately, for the 1990-96 time period.

The current impact of U.S. sanctions on the U.S. and the Cuban economies is assessed for the time period after 1996. To assess this, the Commission analyzed the economic impact of what estimated U.S.-Cuban bilateral trade and investment flows might have been in the absence of U.S. sanctions.

The Commission's estimate of potential U.S.-Cuban bilateral trade in the absence of sanctions synthesizes information derived from a variety of sources. Because there has been virtually no U.S.-Cuban bilateral trade for nearly 40 years, the Commission could not use any of the traditional economic models it has developed and used in other investigations to analyze the impact of policy changes on trade flows. Instead, for this investigation the Commission used a combination of methodologies to estimate what share of Cuba's trade with the world during a recent period might have been with the United States in the absence of sanctions; share estimates were subsequently expressed as dollar values. The base data were Cuba's average annual trade with the world during 1996-98, the most recent data available. All estimates are presented as ranges to reflect the inherent uncertainties of assessing potential U.S.-Cuban bilateral trade, given almost 40 years of virtually no trade between the two countries.

The Commission used a variant of a statistical tool known as a gravity model to estimate the potential U.S. share of aggregate Cuban trade.[4] The Commission also analyzed

[3] The Cuban Liberty and Democratic Solidarity Act is discussed in more detail in chapter 2.

[4] Gravity modeling is an econometric technique that estimates bilateral trade flows as a function of the exporter's gross domestic product (GDP), importer's GDP, and the economic distance between the two trading partners. In a gravity model, trade flows are expected to be positively correlated with the size of the two partners' economies (GDP), and negatively correlated with economic distance. The base year for the Commission's model was 1997. More detailed information on the Commission's gravity model is provided in Appendix F.

40 commodities and sectors that are believed to be potentially important to U.S.-Cuban bilateral trade. Certain sectors were identified by the Committee on Ways and Means in its request letter; others were identified by the Commission from research, information presented at the public hearing and in written submissions, information obtained during the telephone survey, staff travel, and information obtained through contacts with the U.S. private sector. The gravity model could not provide plausible share estimates for certain commodities and sectors for various reasons such as insufficient data or factors that could not be quantified for the model; in those cases, share estimates were developed through expert opinion utilizing information obtained from the public hearing, written submissions, staff travel, telephone survey, and available published literature.

Thus, for commodities and sectors, the ranged estimates of potential U.S.-Cuban bilateral trade presented in this report are a combination of estimates derived from the gravity model and estimates based on expert opinion. The gravity model was used to generate ranged estimates for the remainder of products other than the 40 selected commodities and sectors. The ranged estimates for aggregate U.S.-Cuban trade presented in this report were obtained by summing the commodity/sector estimates (from the gravity model and from expert opinion) and the residual estimates (from the gravity model).

The Commission then analyzed the potential impact of those estimated trade flows on U.S. and Cuban investment, employment, and consumers. In addition, the Commission estimated additional net foreign exchange flows from the United States to Cuba from telecommunication services, travel and tourism payments, and foreign direct investment.

Data Sources

For this report, an overview of U.S. sanctions with respect to Cuba is based on an analysis of relevant U.S. statutes and regulations with regard to Cuba. Historic and current macroeconomic, trade, and investment data were obtained from multiple data sources; data reported by the Cuban Government were used only when comparable data were unavailable from other sources.[5] USITC staff traveled to Cuba during July 2000 to interview Cuban Government officials and foreign investors on the effects of

[5] Standard and complete economic data on Cuba for the period 1955 to the present are not available as the Cuban Government has not regularly published such data or provided it to reporting institutions such as the International Monetary Fund since the 1960s. Moreover, data collected and reported by the Cuban Government typically are not compatible with standard international economic data reporting methods because Cuba is a non-market economy. Data analysis is further complicated by the nature of Cuba's "dual economy" in which economic activity occurs both in Cuban pesos and in foreign currency (primarily U.S. dollars). Similar data problems also are reported in United Nations Economic Commission for Latin America and the Caribbean (ECLAC), *La Economía Cubana: Reformas estructurales y desempeño en los noventa* (Mexico City: United Nations, 1997), p. 8.

the U.S. sanctions, Cuba's current trade and investment regime, and the status of the Cuban economy. A review of relevant economic literature provided historic and current information on Cuba and U.S.-Cuban economic relations. The report also draws on the literature review conducted in the Commission's prior reports on U.S. unilateral economic sanctions.[6]

The Commission obtained a wide range of views on the economic impact of U.S. sanctions with respect to Cuba from a public hearing held on September 19-20, 2000, in Washington, D.C., and from written submissions from the public.[7] The Commission obtained U.S. private sector views from an informal telephone survey conducted by USITC staff of over 200 U.S. companies and associations,[8] and interviews conducted by USITC staff. The hearing, written submissions, telephone survey, and interviews provided additional economic data and anecdotal information from the U.S. private sector that also have been incorporated into the analysis conducted for this report. This report also reflects information provided in a May 7, 1998, hearing on Cuba by the Subcommittee on Trade of the Committee on Ways and Means.[9]

Analytical Framework

Cuba is a non-market, relatively low-income economy that in many respects remains relatively closed to foreign investment and is not fully integrated into the global economy. Cuba faces an acute foreign exchange shortage and thus is not likely to be able to significantly increase its purchases of imports in the near term; indeed, Cuba relies on barter trade, trade credits, and debt forgiveness to finance a portion of its imports from current trading partners. Cuba's low level of economic productivity and limited range of production mean that its near term potential to expand its exports significantly also is limited.

The analysis of the economic impact of U.S. unilateral sanctions with respect to Cuba presents several analytical challenges. Foremost is the difficulty of distinguishing between the economic effects of U.S. sanctions with respect to Cuba and the effects of other significant but unrelated economic factors, such as—

- ***The economic collapse and breakup of the Soviet Union.*** Beginning in 1989, Cuba lost its most important trade markets and financing sources. The loss of

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[6] USITC, *Overview and Analysis of Current U.S. Unilateral Economic Sanctions*, investigation No. 332-391, publication 3124, August 1998, and *Overview and Analysis of the Economic Impact of U.S. Sanctions With Respect to India and Pakistan*, investigation No. 332-406, publication 3236, September 1999. Reports can be obtained from the Commission's Internet site: *http://www.usitc.gov*.

[7] A list of the individuals who appeared at the hearing or who provided written submissions appears as Appendix C. Summaries of hearing testimony appear as Appendix D.

[8] Questions asked in the telephone survey and a list of the companies and associations contacted in that survey appear as Appendix E.

[9] U.S. House of Representatives, Committee on Ways and Means, *U.S. Economic and Trade Policy Toward Cuba: Hearing Before the Subcommittee on Trade*, 105th Congress, 2nd sess., May 7, 1998.

Soviet bloc economic assistance—which peaked at approximately $6 billion annually—had a significant adverse impact on Cuba's economy in the 1990s.

- ***Multilateral sanctions that overlapped U.S. sanctions.*** The members of the Organization of American States (OAS)[10] jointly suspended diplomatic and economic relations with Cuba in July 1964; in July 1975, the OAS authorized its members to pursue independent policies with respect to Cuba.
- ***Cuba's own domestic economic policies.*** As is documented in the economic literature, contributing to Cuba's poor economic performance have been: central economic planning policies supported by Soviet bloc assistance; domestic restrictions on private economic activities, trade, and investment; and Cuba's foreign debt moratorium.

Thus, it is not possible to establish specific provisions of U.S. economic sanctions with respect to Cuba as the sole cause of specific economic conditions in either the U.S. or the Cuban economy.

Numerous U.S. researchers and Cuban Government officials contacted during the course of this investigation reported that one of Cuba's key foreign policy goals is to avoid economic dependence on any other single country in the way that Cuba was dependent on the United States before 1960 or the Soviet Union before 1990. They reported that Cuba typically selects its trade and investment partners based on political—rather than economic—considerations, and that those considerations might weigh against significant future Cuban trade and investment relations with the United States.

> A further complicating factor for U.S. firms' gaining market share in Cuba's planned economy is the difficulty of selling to a Cuban Communist government monopsony where non-market forces may trump economic considerations. . . . Cuban authorities may wish to avoid the risk of relying on any one supplier for the majority of its imported goods . . . after having been burned twice in the past.[11] Cuba . . . [is] very skittish about putting all of its eggs in any one basket. . . [and] would want to spread purchases . . . around to many countries and not just buy from what might be the most effective, most efficient, and the most convenient supplier, which is the United States.[12]
>
> The International Trade Commission need be cautious about using simple arithmetic to determine how much would be purchased from whom, as the resulting calculations may be too enthusiastic for reality. Do not underestimate the significance of the political dynamic to existing decision-making within Cuba regarding commercial transactions.[13] . . . [W]e see absolutely no

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[10] The OAS includes all of the countries of the Western Hemisphere. Cuba is a member of the OAS, but the current government of Cuba was excluded from voting and participating in OAS activities in 1962.

[11] Paula Stern, The Stern Group, *The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba*, June 15, 2000, pp. 5-6.

[12] Paula Stern, The Stern Group, testimony before the USITC, Sept. 19, 2000, transcript, pp. 177-178.

[13] John S. Kavulich, President, U.S.-Cuba Trade and Economic Council, Inc., testimony before the USITC, Sept. 19, 2000, transcript, p. 157.

> evidence that supports that there is going to be an immediate and substantial decision by the Cuban Government to want to purchase a sizeable amount of product from the United States. . . . [Cuba is] going to maintain relationships. . . where the price really is immaterial because the relationship with that particular government far exceeds saving 5, 10, 15, or 20 percent.[14]
>
> I don't think the Cuban Government would be willing to essentially abandon some of the countries that have helped it over the last 10 years.[15]

Thus, any assessment of potential U.S.-Cuban trade in the absence of sanctions must take into account politics, policy, and other noneconomic factors.

Other factors also need to be considered when evaluating the impact of sanctions. For example, in addition to prohibiting most bilateral trade, the United States suspended Cuba from most-favored-nation treatment, which subjected Cuban goods to the higher, column 2 rates of duty, and imposed an eventual trade embargo. The analysis of the impact of the U.S. sanctions requires analysis both of trade flows as well as of tariff levels. Also, the U.S. sanctions with respect to Cuba have been modified many times since 1960, alternately strengthening and weakening various provisions and adding new requirements. Finally, extraterritorial provisions, applying to activities in third countries, were added to U.S. sanctions with respect to Cuba during the 1990s. Those extraterritorial provisions also may create costs for the U.S. economy, and may discourage some foreign companies from releasing data on their operations in Cuba.

Organization of the Report

Chapter 2 describes the relevant U.S. statutes and regulations that authorize or mandate U.S. economic sanctions with respect to Cuba. That chapter also describes the historical and the current impacts of the sanctions on the U.S. economy at the aggregate level.

Chapter 3 provides an overview of the Cuban economy, trade and investment policies, and trade and investment trends. The chapter also describes the historical and the current economic effects of the U.S. sanctions on the Cuban economy at the aggregate level.

Chapters 4, 5, and 6 evaluate the historical and the current impact at the sectoral level of U.S. economic sanctions on the U.S. and Cuban economies, respectively. Chapter 4 addresses the impact of sanctions on services; chapter 5, the impact on agriculture; and chapter 6, the impact on intermediate and manufactured goods. In those chapters, particular attention is paid to the effects on U.S.-Cuban bilateral trade, investment, employment, and consumers.

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[14] Ibid., p. 179.

[15] William A. Messina, Executive Coordinator, International Agricultural Trade and Development Center, University of Florida, testimony before the USITC, Sept. 20, 2000, transcript, p. 537.

Trade between pre-Revolutionary and antebellum United States and Cuba during the 18th and 19th centuries was based on Cuban exports of sugar and molasses, cigars, and hides in exchange for North American flour, manufactured goods, and lumber. After the U.S. Civil War, a wave of U.S. immigrants settled in Cuba and invested heavily in agricultural production, commerce, and shipping. Spain relinquished control of Cuba, its colony for nearly 400 years, to the United States in December 1898. The United States granted Cuba its independence in 1902. Economic links between Cuba and the United States were further aided by preferential access granted by the United States for Cuban sugar.[16] Cuba became an important source of sugar and unprocessed minerals for the United States. However, by the 1950s, U.S. investors had begun to reduce their sugar holdings in Cuba, and had turned to a wide range of other ventures, especially in development of Cuba's physical and economic infrastructure.[17] Cuba also had become an important destination for U.S. tourists.[18] The U.S. economic presence in Cuba became pervasive during this period, with Americans eventually controlling most key sectors of the Cuban economy and owning a large portion of Cuban land.[19]

As Cuba's leading trade and investment partner, the United States accounted for 67 percent of Cuba's exports and 70 percent of its imports in 1958.[20] The United States also was Cuba's main source of both private and official capital. The relatively small Cuban economy accounted for only about 3 percent of U.S. worldwide exports and 4 percent of U.S. imports in 1958,[21] but nevertheless was an important U.S. trading partner. Cuba ranked as the seventh largest U.S. export market in 1958, behind the United Kingdom, Venezuela, and West Germany, but ahead of Brazil, all of the Middle East, and all of Sub-Saharan Africa. Cuba was also the seventh leading source of U.S. imports, behind Japan, West Germany, and Brazil, but ahead of Mexico, France, all of the Middle East, and all of Sub-Saharan Africa.[22]

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[16] Adolf A. Berle, Jr., "The Cuban Crisis: Failure of American Foreign Policy," *Foreign Affairs*, vol. 39, no. 1, Oct. 1960, p. 40. The Cuban sugar sector is discussed in more detail in chapter 4.

[17] U.S. Department of State, Bureau of Inter-American Affairs, "Zenith and Eclipse: A Comparative Look at Socio-Economic Conditions in Pre-Castro and Present Day Cuba," Feb. 9, 1998, at *http://www.123cuba.com/Economic-Conditions-Cuba.html*, retrieved Nov. 20, 2000.

[18] Chronologies of U.S.-Cuban relations are provided by Jane Franklin, *Cuba and the United States: A Chronological History* (New York: Ocean Press, 1997); Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered, Supplemental Case Histories*, (Washington, DC: Institute for International Economics, 1990), pp. 194-200; Mark P. Sullivan and Suzanne L. York, Congressional Research Service (CRS), Library of Congress, *CRS Report for Congress—Cuba-U.S. Relations: Chronology of Key Events Since 1959*, Dec. 13, 1999; Philip G. Wright, *The Cuban Situation and Our Treaty Relations*, (Washington, DC: The Brookings Institution, 1931); and U.S. Department of State, "Cuba: Country Information," at *http://www.state.gov/www/regions/wha/cuba/country_info.html*, retrieved Oct. 3, 2000.

[19] Louis A. Pérez, *The United States and the Americas: Cuba and the United States* (Athens, GA: University of Georgia Press, 1997), p. 145.

[20] United Nations Economic Commission for Latin America, *Economic Survey of Latin America, 1963*, (New York: United Nations, 1965), p. 273.

[21] U.S. Department of Commerce, *1967 Business Statistics*, supplement to the *Survey of Current Business*, tables 109, 111, 114, and 116.

[22] International Monetary Fund (IMF), *Direction of Trade Statistics* (Washington, DC: IMF), various editions.

Following Fidel Castro's January 1, 1959, assumption of power (the United States formally recognized the new government on January 7th), the Cuban Government began to nationalize foreign businesses and expropriate foreign-owned property—most of which belonged to U.S. investors—during 1959-60. The Cuban Telephone Company (an affiliate of the U.S. company International Telephone and Telegraph Corporation) and all casinos (largely operated by U.S. investors) were expropriated in March and April 1959, respectively. U.S.-owned ranches and farms were seized beginning in June 1959 under Cuba's agrarian reform program. Property owned by U.S. sugar companies[23] as well as land owned by United Fruit Company (later United Brands and Chiquita Brands) was expropriated in January 1960.[24]

Cuba signed its first major trade and economic assistance agreement with the Soviet Union in February 1960, under which Cuban sugar was provided in exchange for Soviet crude oil and petroleum products, wheat, fertilizer, iron, machinery, and trade credits. Foreign-owned oil refineries in Cuba, including refineries owned by U.S. companies Esso/Standard Oil and Texaco, were nationalized in June and July 1960, respectively, after they refused to refine the Soviet oil deliveries. President Eisenhower responded to the confiscation of refineries by reducing Cuba's sugar quota access to the U.S. market in July 1960 (at that time, sugar was Cuba's most important export earner and accounted for nearly 80 percent of its exports to the United States).[25] In response to the reduction of its sugar quota, Cuba nationalized additional U.S.-owned agricultural and industrial enterprises in August 1960, and seized U.S. banks (First National Bank of Boston, First National City Bank of New York, and Chase Manhattan Bank) that September. The United States responded to the expropriation of U.S. property by imposing unilateral economic sanctions to prohibit most U.S. exports (except nonsubsidized food, medicines, and medical supplies) to Cuba on October 19, 1960. Cuba expropriated most remaining U.S.-owned properties on October 24, 1960.[26]

Political and economic relations between the United States and Cuba further deteriorated in the early 1960s. The United States broke diplomatic relations with Cuba and suspended U.S. bilateral aid in 1961. In 1962, President Kennedy prohibited virtually all U.S. trade (imports as well as exports) with Cuba. The United States suspended Cuba's most-favored-nation trading status in May 1962. U.S. commercial and financial transactions with Cuba were prohibited in July 1963, and Cuban-owned assets in the United States were frozen. The OAS implemented collective hemisphere-wide economic sanctions with respect to Cuba beginning in June 1964. Cuba pursued close economic, military, and political ties with the Soviet Union during the 1960s, which fueled cold war tensions and further strained the U.S.-Cuban bilateral relationship. Soviet economic assistance to Cuba reportedly grew to nearly

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[23] Testimony of Nicolás J. Gutiérrez, Esq., Secretary and General Counsel to the National Association of Sugar Mill Owners of Cuba, is summarized in Appendix D.

[24] Jane Franklin, *Cuba and the United States: A Chronological History* (New York: Ocean Press, 1997), pp. 18-23.

[25] The sugar industry is discussed in more detail in chapter 5.

[26] Franklin, *Cuba and the United States*, pp. 24-33.

$6 billion annually by the mid-1980s[27]—allowing Cuba to largely offset the adverse economic impact of U.S. sanctions.

After multilateral sanctions imposed by the OAS were terminated in July 1975, the United States remained the only country imposing economic sanctions with respect to Cuba. Against the background of détente with the Soviet Union, the United States and Cuba took several steps to normalize bilateral relations in the 1970s. Notably, foreign subsidiaries of U.S. companies were allowed to trade with Cuba under certain conditions. Further normalization ended in the 1980s.

The late 1980s and early 1990s marked additional changes in U.S.-Cuban relations. The Cuban economy was forced to adjust to reduced Soviet economic assistance after 1989 as a result of economic problems in, and the eventual breakup of, the Soviet Union. In 1992, the United States implemented the Cuban Democracy Act which, among other things, prohibits foreign subsidiaries of U.S. companies from conducting trade with Cuba. The 1996 Cuban Liberty and Democratic Solidarity Act (Helms-Burton Act), among other things, allows U.S. nationals the right to sue in U.S. courts foreign companies investing in the expropriated U.S. proprieties in Cuba, and requires the United States to deny visas to executives of foreign firms deemed to be trafficking in the U.S.-claimed properties in Cuba. Against this background, the Cuban Government has worked to introduce limited measures to open the country to foreign trade and investment to replace Soviet economic assistance, and to introduce selective economic liberalization to stimulate domestic production.

U.S. Certified Claims

U.S. economic sanctions initially were prompted by the seizure of U.S. property in Cuba. The Cuban Government effectively took into state ownership most U.S.-owned property, with the exception of the United States Naval Base at Guantánamo Bay,[28] with no provisions to provide payment of compensation as required under the generally accepted rules of international law. The U.S. Foreign Claims Settlement Commission (FCSC)[29] certified a total of 5,911 claims of U.S. nationals against the Government of Cuba, valued at approximately $1.8 billion in 1972.[30] Of those claims,

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[27] U.S. Department of State, "U.S.-Cuban Relations," at *http://www.state.gov/www/regions/wha/cuba/policy.html*, retrieved Oct. 3, 2000.

[28] A 1903 treaty authorizes the United States to maintain a naval base at Guantánamo Bay. The United States continues to lease the Guantánamo Bay area from the Cuban Government, and only mutual agreement or U.S. abandonment of the area can terminate the lease.

[29] The FCSC is authorized by Congress to determine the validity and valuation of claims of U.S. nationals for loss of property in foreign countries. For the Cuba Claims Program, the FCSC considered losses of U.S. nationals in Cuba that occurred between January 1, 1959, when the Castro regime took power, and October 16, 1964, the date the Cuba Claims Program was authorized. Foreign Claims Settlement Commission of the United States, *Final Report of the Cuban Claims Program*, reprinted from the 1972 Annual Report to the Congress.

[30] The FCSC permitted interest to be accrued in the amount of 6 percent annually; that interest is not reflected in the amounts cited.

898 were certified corporate claims valued at $1.6 billion, and 5,013 were certified individual claims valued at $221 million. It was initially proposed that Cuban assets in the United States be liquidated and made available for payments on the losses determined by the FCSC; however, a study by the U.S. Department of the Treasury and the Department of the State concluded that Cuban Government assets in the United States were not of sufficient value to permit such action. (Cuba sold its gold reserves held at Fort Knox in November 1959, and transferred the money to Swiss and Canadian banks to prevent possible U.S. confiscation.[31]) Therefore, the FCSC classified its Cuban Claims Program as a "resettlement adjudication of claims to determine the extent of American losses and provide a tool for our Government in dealing with the Government of Cuba in the future on this important international issue."[32]

The Cuban Government reports that it negotiated compensation agreements for seized properties with other countries, but that a satisfactory agreement with the United States was not possible because of the U.S. economic sanctions.[33] The Cuban Government also asserts that Cuban expropriation laws provide for compensation with funds earned by Cuban sugar exports to the United States; thus, according to the Cuban Government, by terminating Cuba's sugar quota access to the United States and subsequently imposing the economic sanctions, the United States deprived Cuba of the ability to make compensation in any event.[34]

Current Relations

Currently, the U.S. sanctions restrict economic relations with Cuba to sales of publications and other informational materials, U.S. Government-approved sales and donations of certain U.S. humanitarian food and medical products, approved U.S. payments to Cuba for certain services (including telecommunications, direct charter airline flights, and payments for overflights by U.S. private and commercial aviators), expenses incurred in licensed travel to Cuba, and legal remittances from Americans to eligible Cuban families or individuals.[35] Goods or services of Cuban origin may not be imported into the United States except as accompanied baggage by authorized

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[31] Jane Franklin, *Cuba and the United States: A Chronological History* (New York: Ocean Press, 1997), p. 23.

[32] See note 29, p. 70.

[33] Government of Cuba, *Demanda del Pueblo Cubano Contra el Gobierno de Estados Unidos por los Daños Económicos Ocasionados a Cuba*, (Havana: 2000), pp. 12 and 18.

[34] Fernando Remirez de Estenoz, Principal Officer, Cuban Interests Section, Washington, DC and Deputy Minister of Foreign Affairs of the Republic of Cuba, testimony before the USITC, transcript, pp. 59-60.

[35] Also authorized are certain investments in third-country businesses that have commercial dealings with Cuba. Such secondary market investments must be in a third-country company that does not derive a majority of its revenues from business activity in Cuba, and must not result in a controlling interest in that business. U.S.-Cuba Trade and Economic Council, Inc., "American Express Company is Shareholder in Club Med, which has Cuba Operations," *Economic Eye on Cuba*, Jan. 22-28, 2001, p. 2.

travelers.[36] However, there is an unauthorized flow of U.S. foreign exchange to Cuba. Some sources report increasing numbers of unlicenced U.S. tourists visiting Cuba each year,[37] and estimates of remittances, including cash illegally carried by authorized visitors to Cuba, range from $300 million to $800 million annually.[38]

U.S. exports to Cuba totaled $4.7 million in 1999, according to official U.S. Government data,[39] more than 90 percent of which consisted of donated items, including medical and pharmaceutical products totaling $2.4 million, articles for relief or charity ($1.6 million), and wearing apparel ($197,000). As shown in the tabulation below, U.S. exports to Cuba totaled less than $6 million from 1995 through 1999 except in 1997, when there was a surge in shipments of donated U.S. medical and pharmaceutical products valued at $7.4 million. Increased U.S. exports during January-October 2000 over the same period in 1999 is attributable to higher U.S. shipments of donated articles for relief or charity. U.S. imports from Cuba consisted almost entirely of art work.

						January-October	
	1995	1996	1997	1998	1999	1999	2000
				(million dollars)			
U.S. exports to Cuba	5,846	5,457	9,315	3,455	4,662	4,056	6,260
U.S. imports from Cuba . .	0	0	0	0	649	644	323

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

[36] Office of Foreign Assets Control (OFAC, U.S. Department of the Treasury), "Cuba: What You Need to Know About the U.S. Embargo," at *http://www.ustreas.gov/ofac/t11cuba.pdf*, retrieved Sept. 28, 2000, and U.S. Department of State, "Humanitarian Assistance,"at *http://www.state.gov/www/regions/wha/cuba/humani_aid.html*, retrieved Sept. 28, 2000.

[37] Brian Latell, Professor, School of Foreign Service, Georgetown University, testimony before the USITC, Sept. 19, 2000, transcript, p. 84.

[38] Remittances are discussed in greater detail in chapter 3.

[39] Data compiled from the U.S. Department of Commerce and the U.S. Department of the Treasury.

CHAPTER 2
Overview of U.S. Sanctions With Respect to Cuba and Their Impact on the U.S. Economy

This chapter provides an overview of U.S. economic sanctions with respect to Cuba. The sanctions are described from the time they were first enacted to the present. This chapter also describes the historical and current impacts of the sanctions on the U.S. economy and summarizes the aggregate impact of the sanctions on the U.S. economy.

Major U.S. Sanctions With Respect to Cuba

U.S. economic sanctions with respect to Cuba were initially imposed in 1960 under the Export Control Act, after the Fidel Castro government began expropriating U.S. property in Cuba. Since then, U.S. legislation authorizing these sanctions has consolidated and then extended the scope of sanctions against Cuba, broadening the original trade embargo into a more comprehensive set of economic sanctions prohibiting U.S. citizens and entities from most commercial and financial transactions with Cuba. The legal foundation for U.S. sanctions with respect to Cuba rests largely on the following major statutes and regulations:[1]

- Trading with the Enemy Act of 1917 (TWEA);[2]
- Foreign Assistance Act of 1961 (FAA);[3]
- Cuban Assets Control Regulations of 1963 (CACR);[4]
- Cuban Democracy Act of 1992 (CDA);[5] and
- Cuban Liberty and Democratic Solidarity (Libertad) Act of 1996 (Helms-Burton Act).[6]

On October 28, 2000, President Clinton signed Public Law 106-387, the Trade Sanctions Reform and Export Enhancement Act of 2000. That law relaxed U.S. unilateral sanctions to allow certain sales of food, medicines, and certain medical equipment to a number of countries currently subject to U.S. economic sanctions, including Cuba. Analysis of the impact of this new law is outside of the scope of this investigation. Table 2-1 summarizes these and other major U.S. sanctions with respect to Cuba, along with key Presidential proclamations and declarations.

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[1] A detailed historical treatment of U.S. sanctions legislation regarding Cuba might reference additional ancillary statutes, legislation, regulations, amendments, and proclamations.

[2] Public Law 65-91, 40 Stat. L. 411, 50 USC App. sec. 5.

[3] Public Law 87-195, 75 Stat. 444, 22 USC sec. 2151 et seq.

[4] 31 *CFR* 515. sec. 515.801 to 515.809.

[5] Public Law 102-484, 106 Stat. 2575, 22 USC sec. 6001 et seq.

[6] Public Law 104-114, 110 Stat. 785, 22 USC sec. 6021 et seq.

Table 2-1
Time chart of selected key events regarding U.S. sanctions with respect to Cuba

Year	Date	Selected events
1959	Jan. 7	• United States recognizes new Cuban Government under Fidel Castro.
	May 17	• Cuban Government begins expropriating foreign-owned properties without due compensation.
1960	July 6	• United States cuts remaining portion of Cuba's 1959-60 U.S. sugar import quota in response to expropriation of U.S. property.
	Oct. 19	• United States bans U.S. exports to Cuba, except nonsubsidized foodstuffs and medical supplies.
1961	Jan. 3	• United States breaks diplomatic relations with Cuba.
	Sept. 4	• Foreign Assistance Act authorizes the U.S. President to establish a total embargo on all U.S. trade with Cuba.
1962	May 24	• United States suspends preferential and most-favored-nation tariff treatment to Cuba.
1963	July 8	• Cuban Assets Control Regulations freeze all Cuban-owned assets in the United States and formalizes U.S. commercial, financial, and travel transactions with Cuba by U.S. citizens.
1964	July 26	• Organization of American States (OAS) imposes multilateral economic sanctions with respect to Cuba.
1975	July 29	• OAS abandons multilateral sanctions with respect to Cuba. United States permits U.S. foreign subsidiaries to trade with Cuba.
1992	Oct. 15	• Cuban Democracy Act, among other things, prohibits U.S. foreign subsidiaries from engaging in transactions with Cuba; prohibits ships with Cuban goods from entering U.S. ports; and prohibits commercial sales of food and medicine to Cuba unless Cuba holds free and fair elections.
1996	Mar. 12	• Cuban Liberty and Democratic Solidarity Act (CLDSA), also known as the Helms-Burton Act after its main sponsors, establishes the right of U.S. nationals to file suit in U.S. court against foreign nationals that benefit or profit from expropriated U.S. property in Cuba. The Act also allows the United States to deny entry visas to these nationals.
	Oct. 3	• EU requests establishment of a World Trade Organization (WTO) dispute panel pursuant to the Helms-Burton Act.
1998	May 18	• United States and EU reach an agreement to resolve EU complaint about the Helms-Burton Act.
	Oct. 21	• Section 211 of the Omnibus Appropriation Act makes impermissible the registration or renewal in the United States of a trademark, if it was previously abandoned by a trademark owner whose property had been confiscated by Cuba.
2000	Oct. 28	• The Trade Sanctions Reform and Export Enhancement Act of 2000 is signed into law. Regarding Cuba, the Act essentially allows trade with Cuba in agricultural commodities, medicines, and medical supplies, but prohibits direct public or private export financing for this trade.

Source: Compiled by the U.S. International Trade Commission.

The TWEA provides the legislative basis for U.S. financial sanctions with respect to Cuba. The TWEA was signed into law in 1917, in the context of U.S. entry into World War I. It authorized the President to prohibit, limit, or regulate trade with hostile countries in time of war. A 1933 amendment extended the President's authority to invoke the TWEA through a declaration of national emergency as well as in time of war. A 1977 amendment[7] returned language in the act to invocation only in time of war, but effectively requires the President to justify annually economic sanctions still in place. U.S. Presidents since 1977 have issued annual determinations that extend the state of emergency with respect to Cuba, the most recent determination extending the embargo being Presidential Determination No. 2000-29 of September 12, 2000.[8]

The 1960s: Economic Sanctions of the Eisenhower and Kennedy Administrations

Initial implementation

The United States recognized the new Cuban government led by Fidel Castro on January 7, 1959. The Castro government began to expropriate foreign-owned property without compensation during 1959-60. U.S. oil refineries were expropriated in June and July 1960 after they refused to refine oil Cuba had acquired from the Soviet Union.[9] In response, President Eisenhower cancelled Cuba's portion of the annual U.S. sugar import quota in July1960.[10] In October 1960, the Eisenhower Administration announced a complete ban on U.S. exports to Cuba except for nonsubsidized foodstuffs and medical supplies, under the authority of the Export Control Act of 1949.[11] The United States broke diplomatic relations with Cuba in January 1961.

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[7] The 1933 TWEA amendment was modified by the International Emergency Economic Powers Act (IEEPA) of 1977, Sections 101(a) and 102 (Pub. L. 95-223, 91 Stat. 1625, 50 USC 1701-1706).

[8] 65 *FR* 179, Sep. 14, 2000, pp. 55881-55883.

[9] U.S. Department of State, "U.S.-Cuba Relations," at *http://www.state.gov/www/regions/wha/cuba/policy.html*, retrieved June 20, 2000. Useful chronologies of Cuba covering the Castro regime include: Bureau of Inter-American Affairs, U.S. Department of State, "Chronology of Cuban Affairs, 1958-1998," Jan. 12, 1998, at *http://www.state.gov/www/regions/wha/cuba_chronology.html*, retrieved June 20, 2000; Mark P. Sullivan and Suzanne L. York, "Cuba-U.S. Relations: Chronology of Key Events Since 1959," *CRS Report for Congress*, Dec. 13, 1999, Library of Congress, Congressional Research Service, RL30386; International Institute for Economics, *Economic Sanctions Reconsidered*, 3rd ed. (Washington, DC: forthcoming); and Jane Franklin, *Cuba and the United States—A Chronological History* (Melbourne: Ocean Press 1997).

[10] Presidential Proclamation No. 3355, "Determination of Cuban Sugar Quota by the President of the United States of America—A Proclamation," 25 *FR* 6414, July 8, 1960. Sugar is discussed in more detail in chapter 5.

[11] U.S. Department of State, *Bulletin*, vol. 43, 1960, pp. 715-716. The Export Control Act of 1949 was succeeded by the Export Administration Act (EAA) of 1969, which in turn was replaced by the Export Administration Act of 1979 (Public Law 96-72, 93 Stat. 506 et. seq. 50 USC App. 2404). The EAA of 1979 lapsed on Aug. 20, 1994, but its legislative core was continued under Executive Order 12924 of Aug. 19, 1994, which continues in effect a system of export controls, implemented by the Bureau of Export Administration (BXA), U.S. Department of Commerce, through the Export Administration Regulations (EAR). In addition, provisions of the TWEA authorize the President to prohibit, limit, or regulate trade with hostile countries if necessary.

Sanctions denying U.S. foreign assistance

The FAA of 1961 denied all U.S. foreign assistance to Cuba and gave the President specific authority to impose economic sanctions with respect to Cuba and provided alternate authority for sanctions with respect to Cuba already implemented.[12] The annual reauthorization of the Act in the following year—the FAA of 1962[13] —denied U.S. assistance to all communist countries, under FAA new subsection 602(e). Without specifying any particular countries, section 602 (e) also reinforced sanctions against countries that expropriate U.S. property. The FAA of 1962 further strengthened sanctions against communist countries by specifically enumerating a list of countries "controlled by the international Communist conspiracy," including Cuba. Cuba has always been specifically identified as a communist country subject to sanctions under the FAA, although other countries have been removed by amendment from the list. On February 7, 1962, the United States prohibited virtually all U.S. trade with Cuba under the authority of the FAA.[14]

Suspension of most-favored-nation (MFN) treatment

In May 1962, the United States suspended the application of reduced rates of duty for Cuba—both preferential and MFN tariff treatment—under the section 401 of the Tariff Classification Act of 1962. Suspension of reduced rates of duty is required once the United States determines that a country is "dominated or controlled by the foreign government or foreign organization controlling the world Communist movement,"[15] although for practical purposes the February 1962 measures pursuant to the FAA already had halted virtually all U.S. imports from Cuba.[16]

Shipping, food, and medical sales

In October 1962, the crisis involving Soviet missile sites in Cuba unfolded, setting in train a number of additional U.S. economic sanctions with respect to shipping to, from,

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[12] Sec. 620(a)(1) of the FAA of 1961 provides that "[n]o assistance shall be furnished . . . to the present government of Cuba." Sec. 620(a)(2) provides that "[e]xcept as may be deemed necessary by the President in the interest of the United States, no assistance shall be furnished under this chapter to any government of Cuba, nor shall Cuba be entitled to receive any quota authorizing the importation of Cuban sugar into the United States or to receive any other benefit under any law of the United States, until the President determines that such government has taken appropriate steps according to international law standards to return to United States citizens, and to entities not less than 50 *per centum* beneficially owned by United States citizens, or to provide equitable compensation to such citizens and entities for property taken from such citizens and entities on or after Jan. 1, 1959, by the Government of Cuba." 22 USC sec. 2370(a). The U.S. Department of State is the lead agency administering the FAA.

[13] Public Law 87-585, 76 Stat. 255. The FAA was first promulgated in 1961 (the FAA of 1961). Subsequent reauthorizations (such as the FAA of 1962, and others) have amended various provisions or added new elements to the core legislation.

[14] Presidential Proclamation No. 3447 of Feb. 3, 1962 (27 *FR* 1085), effective Feb. 7, 1962. Although the proclamation contained no specific mention of food and medicine, it did give the Secretary of Commerce the authority to make, modify, or revoke exceptions for goods such as food and medicine under the Export Control Act of 1949. Thus, the Kennedy restrictions left intact the Eisenhower ban on all U.S. exports to Cuba except unsubsidized foodstuffs and medical supplies.

[15] Public Law 87-456, 76 Stat. 72, of May 24, 1962.

[16] For further discussion of MFN treatment, see Vladimir N. Pregelj, Congressional Research Service (CRS), *Normal-Trade-Relations (Most-Favored-Nation) Policy of the United States*, CRS Issue Brief, Aug. 4, 2000.

and related to Cuba. Once the missile crisis was resolved, so-called quarantine measures imposed against shipping from third parties to Cuba were terminated in November 1962, although bilateral shipping restrictions remained in force under the U.S. economic sanctions with respect to Cuba. In May 1964, the U.S. Department of Commerce issued an order requiring export licenses for U.S. sales of food and medicines to Cuba.

Comprehensive economic sanctions

The Office of Foreign Assets Control (OFAC) of the U.S. Department of the Treasury is responsible for issuing, interpreting, and applying economic sanctions regulations.[17] OFAC published the CACR on July 9, 1963.[18] Among other things, the CACR:

- prohibited all unlicenced financial and commercial transactions by Americans with Cuba or its citizens;
- prohibited the direct or indirect (e.g., through third countries) export to Cuba of U.S. products, services, or technology, except publications, informational materials, telecommunications services, and attendant equipment;
- prohibited the direct or indirect import into the United States of Cuban products or services, except for up to $100 worth of Cuban merchandise returning with authorized travelers, publications, informational materials, and certain artwork; and
- imposed a total freeze on Cuban Government and private assets, as well as on financial dealings with Cuba, blocking all property of Cuba and Cuban nationals in the possession of U.S. persons (blocking imposes a complete prohibition against transfers or transactions of any kind unless authorized by the Department of the Treasury).

The 1970s: Steps Toward Normalization

In the 1970s, against the background of détente with the Soviet Union, the defeat of Marxist guerrilla movements in Latin America, and the 1975 vote by the Organization of American States to end its multilateral economic sanctions with respect to Cuba,[19] the United States and Cuba took several initial steps toward normalizing their relationship. In February 1973, the United States and Cuba signed an anti-hijacking agreement in which the two countries agreed to return or prosecute hijackers.[20] In August 1975, the United States amended the CACR to allow subsidiaries of U.S. firms

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[17] 31 *CFR* 515. sec. 515.801 to 515.809. OFAC was established by Treasury Department Order No. 128, Rev. 1 of Oct. 15, 1962.

[18] The CACR were published under the authority of FAA section 620(a), and TWEA section 5(b).

[19] The imposition of multilateral economic sanctions with respect to Cuba by the Organization of American States is discussed in chapter 1.

[20] Mark P. Sullivan and Suzanne L. York, "Cuba-U.S. Relations: Chronology of Key Events Since 1959," *CRS Report for Congress*, Dec. 13, 1999, Library of Congress, Congressional Research Service, RL30386, pp. 2-3.

in third countries to trade with Cuba.[21] In October 1975, the Treasury Department formally revoked the regulation that made it illegal for overseas subsidiaries of U.S. firms to trade with Cuba, replacing it with a requirement for a specific license to trade with Cuba from those third countries.[22] In March 1977, the U.S. Government let lapse restrictions on U.S. travel to Cuba by U.S. citizens, thereby allowing U.S. citizens to spend $100 in travel-related expenditures on Cuban goods during their visits. In April 1977, the United States and Cuba signed an accord on fishing rights and maritime boundaries between the two countries. In September 1977, the two countries opened interest sections in each other's capitals— allowing the two countries to maintain an unofficial diplomatic representation in each other's respective capital. Currently, the U.S. Interests Section in Havana is part of, and diplomats are accredited to, the Swiss Embassy in Havana; in a similar fashion, the Cuban Interests Section is part of the Swiss Embassy in Washington, D.C. (however, the U.S. and the Cuban Interests Sections are physically located at the sites of their former respective embassies).

The 1980s: Renewed Sanctions

Normalization efforts came to a halt as the Cuban Government began sending military forces to Africa in the late 1970s. During the 1980s, U.S. sanctions with respect to Cuba were intensified. In April 1982, the Reagan Administration reinstated the prohibition on incidental travel expenditures by U.S. tourists in Cuba, effectively banning travel to Cuba by U.S. citizens—except for officials, relatives visiting family, and professional activities.[23] In 1989, Senator Connie Mack (R-Florida) introduced an amendment (the so-called Mack Amendment) drafted to reinstate the prohibition of trade with Cuba by U.S. foreign subsidiaries. Senator Mack introduced this proposal every year until it was passed in 1992 as part of the CDA (discussed in more detail below).

The 1990s: Sanctions Against Post-Soviet Cuba

In September 1991, the Treasury Department tightened U.S. sanctions by limiting the amount of money that U.S. citizens can remit to family members in Cuba. In April 1992, the Treasury Department issued regulations prohibiting ships with Cuban goods or ties to Cuban interests from loading or unloading in U.S. ports. Treasury also reduced the permitted value of parcel shipments to Cuba to $100 or less, with an exception made for food, medicines, toiletries, and other "humanitarian" items. The Treasury

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[21] Ibid. The State Department announced that foreign subsidiaries of U.S. firms may export—with certain restrictions—to Cuba. The State Department also ended the practice of withholding aid to countries that trade with Cuba, and cancelled the policy that vessels trading with Cuba may not refuel at U.S. ports. However, direct U.S.-Cuba trade remained prohibited.

[22] Jane Franklin, *Cuba and the United States—A Chronological History* (Melbourne: Ocean Press 1997), pp. 119-121.

[23] In December 1988, the Treasury Department once again permitted travel if written justification was submitted for approval. Further requirements were added in November 1989.

Department further tightened travel restrictions in August 1994, allowing travel only in cases of hardship reviewed on a case-by-case basis, allowed no cash transfers to Cuba except for purposes of emigration; and even required a specific license for official travel.

Cuban Democracy Act of 1992 (CDA)

President Bush signed the CDA into law on October 23, 1992. The CDA tightened U.S. economic sanctions with respect to Cuba by codifying and expanding many provisions—effectively reversing the policy direction toward normalization that had occurred during the 1970s—and adding new provisions.

Among other things, the CDA:

- prohibited subsidiaries of U.S. firms from engaging in any transaction with Cuba;
- prohibited any vessel that enters a port or place in Cuba to engage in the trade of goods or services from loading or unloading any freight in the United States within 180 days after departure from Cuba, and codifies prior administrative regulations closing U.S. ports to vessels carrying goods or passengers to or from Cuba or carrying goods in which Cuba or a Cuban national has any interest;
- required that exports of medicines or medical supplies, instruments, or equipment be subject to onsite verification that the exported item is to be used for the purposes for which it was intended and only for the use and benefit of the Cuban people;
- authorized the President to prohibit U.S. economic and military assistance, military sales, or debt forgiveness or reduction of debt owed to the United States, to any country that provides assistance to Cuba;
- instructed the President to maintain strict limits on remittances to Cuba by U.S. persons; and
- provided the Treasury Department with the authority to impose civil fines and forfeitures of property for violators of U.S. sanctions regulations.

The CDA also authorized telecommunications services between the United States and Cuba, and payments to the Cuban government for such services, as well as direct mail service between the United States and Cuba, with certain limitations.

Cuban Liberty and Democratic Solidarity (*Libertad*) Act of 1996 (Helms-Burton Act)[24]

The Helms-Burton Act was signed into law on March 12, 1996, one month after two unarmed U.S. civilian aircraft were downed by Cuban military forces in international

[24] The Cuban Liberty and Democratic Solidarity Act is also known and widely referred to as the Helms-Burton Act after its sponsors, Sen. Jesse Helms (R-North Carolina) and Rep. Dan Burton (R-Indiana).

airspace north of Cuba. The Helms-Burton Act further codified the comprehensive U.S. economic sanctions with respect to Cuba, set out under four titles:

- Title I required U.S. representatives of international financial institutions to oppose Cuban membership, and restricts U.S. payments to any international financial institution that approves assistance to Cuba over U.S. objections;
- Title II made the lifting of U.S. economic sanctions contingent on settlement of outstanding claims for expropriated U.S. property in Cuba;
- Title III provided for U.S. nationals whose property in Cuba has been confiscated to bring legal suit against other parties—Cuban Government entities as well as foreign investors—who profit from the use of those properties; and
- Title IV denied visas and entry into the United States of individuals who traffic in U.S.-claimed properties in Cuba.

The extraterritorial nature of the Helms-Burton Act—extending U.S. sanctions to third countries such as Canada, the European Union (EU), and Mexico—has made the act the subject of concern by major U.S. allies. Canada responded to the extraterritorial reach of U.S. sanctions with two Canadian laws. The Foreign Extraterritorial Measures Act of 1992 (FEMA) requires Canadian companies (including U.S. subsidiaries) that receive instructions not to trade with Cuba to disregard the instructions. FEMA was amended in 1996 to increase protection for Canadian businesses adversely affected by the Helms-Burton Act; that amendment makes judgements in the United States pursuant to the Helms-Burton Act unenforceable in Canada, and allows Canadians who are sued in the United States to recover any amounts awarded if the other party has assets in Canada.[25] Mexico passed a similar law in October 1996, the Law to Protect Trade and Investment from Foreign Laws that Contravene International Law, that imposes fines on Mexican companies that comply with extraterritorial legislation such as the Helms-Burton Act and provides for the nonrecognition and nonenforcement of foreign judgments issued under such extraterritorial laws.[26]

In May 1996, the EU requested World Trade Organization (WTO) dispute-settlement consultations with the United States over the extraterritorial effects of the Helms-Burton Act. The EU was particularly concerned about the extraterritorial effect on U.S. subsidiaries incorporated in Europe. The two sides reached an accommodation on this dispute and signed an agreement, The EU-U.S. Understanding of May 18, 1998, under which terms the EU agreed to develop rules regarding investment projects dealing with illegally expropriated properties, and the U.S. Administration agreed to

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[25] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, June 1999, pp. 35-36. at *http://www.dfait-maeci.gc.ca/latin/viewdocument-easp?continent=Latin&country=11&name=cuba*, retrieved Jan. 28, 2000.

[26] Harry L. Clark, "Dealing with U.S. Extraterritorial Sanctions and Foreign Countermeasures," *University of Pennsylvania Journal of International Economic Law*, vol 20, no. 61 (1999), at *http://www.dbtrade.com/publications/extra_territorial.htm*, retrieved Dec. 11, 2000.

seek from the Congress the authority to grant a waiver from Title III and IV restrictions under the act.[27]

Remittances

The United States reinstituted legal remittances by U.S. citizens to their family in Cuba for humanitarian purposes in March 1998.[28] At that time, U.S. citizens were legally authorized to remit up to $300 in any consecutive 3-month period to close family members in Cuba through an OFAC-licensed remittance forwarder.[29] The scope for legal remittances was expanded beyond close family members of Cuban-Americans in 1999, when any U.S. citizen was authorized to send up to $300 each quarter of the year to any Cuban family (except for senior-level Cuban government and communist party officials).[30]

Section 211 of the U.S. Omnibus Appropriations Act

Section 211 of this Act, which was signed into law on October 21, 1998, has the consequence of making impermissible the registration or renewal in the United States of a trademark, if it was previously abandoned by a trademark owner whose business and assets have been confiscated under Cuban law; it also provides that no U.S. court shall recognize or enforce any assertion of such rights. The EU filed a WTO complaint in July 1999, alleging that Section 211 of the Act is not in conformity with U.S. obligations under the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs).[31]

Sales and donations of medicines and medical equipment

The United States implemented new procedures to help facilitate medical sales to Cuba in 1998. The Commerce Department and other agencies developed procedures to expedite processing of humanitarian medical licenses and to work with exporters on

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[27] The EU requested the WTO to establish a dispute panel pursuant to this complaint in October 1996; such a panel was established in November 1996. At the request of the EU, the WTO dispute panel suspended its work in April 1997, and its authority lapsed in April 1998. WTO, "Overview of the State-of-Play of WTO Disputes," at *http://www.wto.org/english/tratop_e/dispu_e/stplay_e.doc,* retrieved Jan. 4, 2001, and European Commission, *Report on United States Barriers to Trade and Investment—1996* (Brussels, May 1996), pp. 6-7.

[28] Although family remittances from the United States to Cuba previously were authorized, the United States suspended the sending of remittances to Cuba in 1996, following the shootdown by the Cuban air force of two small U.S. civilian airplanes. For further information, see Bureau of Inter-American Affairs, U.S. Department of State, "Remittances to Cuba," fact sheet, March 20, 1998, *http://usinfo.state.gov/regional/ar/us-cuba/rem20.htm*, retrieved Jan. 4, 2001.

[29] 63 *FR* 95, May 19, 1998, pp. 27347-27349.

[30] Bureau of Inter-American Affairs, U.S. Department of State, "Cuba: Remittances," fact sheet, Jan. 5, 1999, at *http://www.state.gov/www/regions/wha/fs_990105_cuba_remit.html*, retrieved Jan. 4, 2001.

[31] See the discussion of distilled spirits in chapter 5 for additional information. A WTO dispute panel was established in September 2000. WTO, "Overview of the State-of-Play of WTO Disputes," at *http://www.wto.org/english/tratop_e/dispu_e/stplay_e.doc*, retrieved Jan. 4, 2001.

the monitoring and on-site verification requirements for medical sales or donations to nongovernmental entities in Cuba.[32]

Sales of food and agricultural inputs

On January 5, 1999, President Clinton announced his decision to authorize licensing, on a case-by-case basis, of sales of food and agricultural inputs to independent entities, individuals, and organizations in Cuba. The ultimate purchaser and end-user must not be controlled, owned, or operated by the Cuban government (although certain government entities may be used strictly as providers of services for exported food or agricultural items, e.g. warehousing and distribution, at customary and reasonable rates).[33] Entities such as religious groups and private restaurants would be eligible to purchase U.S. food, while private farmers and farmers in cooperatives raising food for sale in private markets would be eligible to purchase U.S. agricultural inputs.[34]

Historical Impact

Literature Review

A 1999 report by the Congressional Budget Office (CBO) found that, "[t]o date, sanctions on foreign commerce have had only a small combined impact on the national economy."[35] The CBO report, which examined much of the same economic literature analyzed in the Commission's 1998 report, described as possible costs to the U.S. economy resulting from the application of economic sanctions:

- a loss of the gains from trade, to the extent that such trade is based on comparative advantage that enhances the country's economic efficiency, reflected in a reduction of consumer welfare;
- adjustment costs of temporary unemployment and lower output as domestic resources shift to new foreign markets;
- loss of future market power such as follow-on sales or service provision; and

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[32] BXA, U.S. Department of Commerce, "Fact Sheet: Guidelines on Sales and Donations of Medicines and Medical Equipment to Cuba," at *http://www.bxa.doc.gov/factsheets/medsht.htm.*, retrieved Jan. 4, 2001.

[33] BXA, U.S. Department of Commerce, "Fact Sheet: Do's and Don'ts of Exporting Food for Sale to Cuba," at http://www.bxa.doc.gov/factsheets/DosandDonts4Cuba.html, retrieved Jan. 4, 2001.

[34] Bureau of Inter-American Affairs, U.S. Department of State, "Cuba: Food Sales," fact sheet, Jan. 5, 1999, at http://www.state.gov/www/regions/wha/fs_990105_cuba_food.html, and BXA, U.S. Department of Commerce, "Fact Sheet: Food and Agricultural Exports to Cuba," at http://www.bxa.doc.gov/factsheets/CubaFacts.html, retrieved Jan. 4, 2001.

[35] U.S. Congress, Congressional Budget Office (CBO), *The Domestic Costs of Sanctions on Foreign Commerce*, March 1999, p. xii.

- loss of reputation of the United States as a reliable trade partner.[36]

The CBO also reported that sanctions may benefit the U.S. economy if they act to correct market distortions or result in a reduction of U.S. foreign aid outlays.[37]

The CBO further reported that U.S. unilateral economic sanctions with respect to Cuba, a small developing country, most likely have resulted in small economic costs to the U.S. economy because Cuba's small economy accounted for only a small share of total U.S. trade and foreign investment. The CBO also noted that disrupting trade and investment with such a small country probably has not had any significant effects on the U.S. economy. Moreover, Cuba's economy historically has relied primarily on exports of the low-value-added export commodities sugar and nickel, for which alternate suppliers are readily available; thus, the costs to the United States of disrupting trade and switching markets away from Cuba most likely have been very small. Finally, halting trade with a developing country such as Cuba probably benefitted the U.S. economy by reducing U.S. outlays for foreign aid and foreign trade credits.[38]

Economic literature on the effects of U.S. unilateral sanctions with respect to Cuba on the U.S. economy was provided to the Commission through written submissions from the public in response to the Commission's *Federal Register* notice for this investigation.[39] That literature is cited throughout this report and is not reviewed separately. In addition to the CBO report and the written submissions, this report also draws on a review of the economic literature on the costs of U.S. unilateral economic sanctions in a 1998 report the Commission prepared for the Committee on Ways and Means.[40] In that report, the Commission found that only a limited range of literature specifically examines the costs of economic sanctions to the country imposing economic sanctions. Most of the literature focused on the costs of sanctions to the country targeted for economic sanctions, or estimates the degree of success of the sanctions achieving stated policy goals or objectives of the sanctions. According to one analysis of U.S. economic sanctions, "it is just plain hard to quantify the costs to the sender country" because "[h]ard data rarely exist . . . . [a]nd many costs appear only years later in the form of lost sales opportunities."[41] One study reported that the actual costs of sanctions to the U.S. economy are likely to be smaller than estimated costs, in part because of the offsetting benefits of reduced expenditures for foreign aid or

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[36] Ibid., pp. 8-10.
[37] Ibid., pp. 34-35.
[38] Ibid., pp. 32-33.
[39] The *Federal Register* notice appears as Appendix B. A list of the individuals who appeared at the hearing or who provided written submissions for this investigation appears as Appendix C.
[40] USITC, *Overview and Analysis of Current U.S. Unilateral Economic Sanctions*, investigation No. 332-391, publication 3124, August 1998, pp. 4-1 to 4-2. This report can be obtained from the Commission's Internet site: *http://www.usitc.gov*.
[41] In the literature on economic sanctions, the term "sender" indicates the country that implements or imposes economic sanctions, and the term "target" indicates the country against which the sanction is directed. Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered: History and Current Policy*, 2nd ed., (Washington, DC: Institute for International Economics, 1990), p. 76.

export incentives,[42] or because the sanctions protect certain U.S. sectors from foreign competition.[43]

The Commission's 1998 report found that U.S. unilateral economic sanctions entail costs to the U.S. economy as a whole and to specific economic sectors. Some of the direct, quantifiable costs of sanctions include reduced U.S. exports, imports, investment, and export-related jobs as well as the costs of establishing policies and procedures to comply with sanctions and to avoid payment of penalties. Other less quantifiable, indirect costs to the U.S. private sector include reduced U.S. trade opportunities; reduced competitiveness of U.S. businesses if sanctions prohibit the provision of U.S. government trade credits, guarantees, grants, and loans; lost business opportunities due to delays in receiving export licenses; supply reductions and higher prices for U.S. consumers and industrial users if substitutes for prohibited imports are unavailable; and a "chilling effect" on long-term commercial relationships as some foreign partners grow reluctant to do business with U.S. companies out of concern about future U.S. economic sanctions.[44]

The Commission's 1998 report also found that U.S. unilateral economic sanctions may benefit some U.S. producers. To the extent that U.S. sanctions prohibit imports of certain products, the sanctions may reduce foreign competition in the U.S. market for those products and lead to higher U.S. domestic production and employment. Such a benefit may occur for U.S. specialty agricultural crops in the case of U.S. sanctions with respect to Cuba.[45] The Commission's 1999 report on U.S. economic sanctions with respect to India and Pakistan found that sanctions prohibiting the provision of U.S. government agricultural export credits and guarantees would result in an estimated benefit for the United States—i.e., an increase in U.S. welfare due to reduced government outlays for the export credits—partially offsetting the estimated cost of those sanctions to the United States.[46]

Impact during 1960-1989

The Cuban Government had seized a significant portion of U.S. property in that country—including the most economically significant industries such as sugar and fruit companies, oil refineries, utilities, and banks—before the Eisenhower Administration imposed the first round of U.S. economic sanctions against Cuba on October 19, 1960. Cuba seized remaining U.S. property on October 24, 1960; but comprehensive U.S. economic sanctions prohibiting both exports and imports were not announced until February 7, 1962.

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[42] Richard D. Farmer, "Costs of Economic Sanctions to the Sender," *The World Economy*, vol. 23, No. 1, January 2000, p. 114.

[43] Ibid., pp. 101-102.

[44] See note 33, pp. 1-6 to 1-7.

[45] Ibid., pp. 1-6 and 3-6 to 3-7.

[46] USITC, *Overview and Analysis of the Economic Impact of U.S. Sanctions With Respect to India and Pakistan*, investigation No. 332-406, publication 3236, September 1999, p. 5-2. This report can be obtained from the Commission's Internet site: *http://www.usitc.gov*.

In 1958, Cuba accounted for about 3 percent of U.S. worldwide exports and 4 percent of U.S. imports.[47] Despite the relatively small size of its economy, Cuba was a relatively important U.S. trade partner, ranking as the seventh largest U.S. export market and the seventh leading source of U.S. imports in 1958.[48] U.S.-Cuban economic relations deteriorated significantly before comprehensive U.S. economic sanctions were implemented in reaction to political events in Cuba. With most U.S. economic assets in Cuba already expropriated by the Cuban Government, the U.S. economic sanctions of October 1960 and February 1962 appear to have caused little real additional costs for the U.S. economy. Table 2-2 shows that U.S. exports to Cuba declined by more than one-half between 1958 and 1960, from $547 million to $224 million, and declined further to just $14 million in 1961; U.S. imports from Cuba similarly declined from $528 million in 1958 to $35 million in 1961. The United States quickly found alternative sources for the products that Cuba had supplied, and alternative markets for products that had been supplied to Cuba.[49] An informal survey of U.S. newspaper and economic journal articles during 1961-63 shows no reports of adverse impact on the U.S. economy, or to specific economic sectors, as a result of the U.S. economic sanctions with respect to Cuba beyond the costs inflicted by Cuban expropriation of U.S. property.[50]

Table 2-2
U.S. trade with world and with Cuba, 1957-64

	1957	1958	1959	1960	1961	1962	1963	1964
	Pre-Castro Cuba		*First years of Castro Government in Cuba*					
					Comprehensive U.S. sanctions begin			
U.S. exports								
to world (million dollars)	20,850	17,910	17,634	20,575	21,000	21,700	23,347	26,508
to Cuba (million dollars)	617	547	439	224	14	13	36	0
percent to Cuba .	3.0	3.1	2.5	1.1	0.1	0.1	0.2	0
U.S. imports								
from world (million dollars)	13,255	13,255	15,627	15,017	14,714	16,389	17,138	18,684
from Cuba (million dollars)	482	528	475	357	35	7	0	0
percent from Cuba	3.6	4.0	3.0	2.4	0.2	0.1	0	0

Source: U.S. Department of Commerce, *1967 Business Statistics*, supplement to the *Survey of Current Business*, tables 109, 111, 114, and 116.

[47] U.S. Department of Commerce, *1967 Business Statistics*, supplement to the *Survey of Current Business*, tables 109, 111, 114, and 116.

[48] International Monetary Fund (IMF), *Direction of Trade Statistics* (Washington, DC: IMF), various editions.

[49] Bureau of East-West Trade, U.S. Department of Commerce, *United States Commercial Relations with Cuba: A Survey* (Washington, DC, August 1975), p. 24.

[50] The Commission conducted a literature survey using the *New York Times Index, 1961-63*, and the *Business Periodicals Index, July 1960-June 1961, July 1961-June 1962, July 1962-June 1963, and July 1963-June 1964.*

U.S. economic sanctions with respect to Cuba appear to have had minimal overall adverse impact on the U.S. economy from the time they were implemented through 1989. Cuba's relatively closed economy relied extensively on assistance from and trade with the Soviet bloc countries during that period. Opportunities for foreign investment and trade with Cuba were limited for all non-Soviet countries—not just the United States.[51] One study estimated that U.S. exports to Cuba in 1987 would have been $432 million in the absence of U.S. sanctions, versus actual U.S. exports to Cuba that year of $1 million.[52]

A shortage of foreign exchange further limited Cuba's ability to purchase goods and services from non-Soviet bloc countries.[53] To the extent that Cuba successfully obtained trade financing outside the Soviet bloc, the United States may have experienced reduced exports as other countries, notably Japan, Canada, Spain, and Mexico, expanded their trade with Cuba. However, Cuba stopped servicing its foreign debt—much of which had been used to finance trade—in 1986.[54] Thus, the opportunity cost of forgone U.S. exports to Cuba may have been at least in part offset by a saving for the U.S. economy of not having been exposed to Cuba's foreign debt default.[55] One source stated that U.S. economic sanctions may have contributed to a peace dividend for the United States, but that same source reported that it is difficult to attribute specific historical outcomes solely to U.S. sanctions—

> On the positive side, there were no additional Marxist revolutions in the Western Hemisphere until 1979. Whether this was primarily the result of the embargo, or of the combination of policies that Washington implemented following the Cuban revolution, or of other developments having little or nothing to do with U.S. policy remains debatable. If the embargo did play a role in containing the spread of Cuban communism, it did so only in combination with the economic and military aid that the United States provided to the rest of Latin America as part of its overall policy of containment.[56]

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[51] "[T]he unilateral embargo precludes U.S. exporters and investors from the Cuban market, while leaving it open to the benefit of all competitors. This did not mean much before 1990, when the Cuban economy was integrated with the Soviet Bloc." Ernest H. Preeg, Center for Strategic and International Studies, testimony before the House of Representatives, Committee on Ways and Means, Subcommittee on Trade, May 7, 1998, transcript, p. 147.

[52] Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered: History and Current Policy*, vol. 1, 2nd ed., (Washington, DC: Institute for International Economics, 1990), table 4.2, p. 81. This study used actual OECD exports to Cuba during 1987, and estimated U.S. exports to Cuba by assuming "that the United States would have maintained its 49 percent share of OECD exports to non-OECD America."

[53] Statements to this effect were provided by Representative Robert Menendez (D-New Jersey) and Ernest H. Preeg, Center for Strategic and International Studies, testimony before the House of Representatives, Committee on Ways and Means, Subcommittee on Trade, May 7, 1998, transcript, pp. 24 and 145, respectively. See also Thomas E. Cox, Director, U.S.-Cuba Business Council, testimony before the USITC, Sept. 19, 2000, transcript, p. 161, and William A. Messina, Jr., Executive Coordinator, International Agricultural Trade and Development Center, University of Florida, testimony before the USITC, Sept. 20, 2000, transcript, p. 537.

[54] Cuba's foreign debt is discussed in chapter 3.

[55] Testimony before the USITC, Sept. 19, 2000, Congresswoman Ileana Ros-Lehtinen (R-Florida), transcript, p. 35, and Dennis K. Hayes, Executive Vice President, The Cuban American National Foundation, transcript, p. 277.

[56] Susan Kaufman Purcell, Vice President, Americas Society and Council of the Americas, "Cuba," excerpted with permission from *Economic Sanctions and American Diplomacy*, edited by Richard N. Haass, (New York: Council on Foreign Relations Press, 1998), at *http://www.americas-society.org/spcuba.html*, retrieved Nov. 25, 2000.

Impact during 1990-96

Although Cuba has encouraged foreign investment since 1982, the possibility for significant foreign business opportunities in Cuba did not emerge until after 1990[57]—after the breakup of the Soviet Union and as a result of the Cuban Government's efforts to open the country's economy to foreign trade and investment.[58] However, the 1992 Cuban Democracy Act and the 1996 Cuban Liberty and Democracy Act intensified U.S. sanctions with respect to Cuba by, among other things, prohibiting foreign subsidiaries of U.S. companies from trading with Cuba, allowing U.S. nationals the right to sue in U.S. courts foreign companies that invest in expropriated U.S. properties in Cuba, and denying visas to executives of foreign firms deemed to be trafficking in U.S.-claimed properties in Cuba.

One analysis reviewed by the Commission estimated the value of forgone U.S. exports to Cuba to have been $3 billion to $4 billion annually during the late 1990s, assuming that the United States could expect to account for at least 60 percent of actual Cuban trade.[59] Another study estimated U.S. export losses because of economic sanctions with respect to Cuba to be about $1 billion in 1995.[60]

In addition to the costs of forgone exports, U.S. economic sanctions with respect to Cuba imposed other costs for the U.S. economy and for U.S. businesses. An informal survey of 42 multinational companies conducted for a 1997 report by the European-American Business Council found that more than 60 percent of the survey respondents reported being adversely affected by U.S. sanctions with respect to Cuba,[61] with companies in the high technology manufacturing and automotive sectors reporting the greatest impact.[62] Respondents to that survey reported that the extraterritorial provisions of the Helms-Burton Act deny U.S. visas for foreign business executives dealing in confiscated U.S. property would deter foreign investment in the United States and reduce associated job creation.[63] Individuals at the hearing for this investigation further reported on the financial burden borne by U.S. taxpayers as a result of the establishment of federal programs to administer and enforce the U.S. sanctions,[64] as well as the costs to the U.S. private sector of establishing sanctions

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[57] The Economist Intelligence Unit, *Country Profile: Cuba, 1999-2000*, (London: The Economist Intelligence Unit, Ltd., 1999), p. 27.

[58] Cuba's current trade and investment regime is discussed in chapter 3.

[59] See Ernest H. Preeg, note 44, transcript, p. 147.

[60] Gary Clyde Hufbauer, Kimberly Ann Elliott, Tess Cyrus, and Elizabeth Winston, "U.S. Economic Sanctions: Their Impact on Trade, Jobs, and Wages," Institute for International Economics Working Paper, 1997, at *http://www.iie.com/catalog/WP/1997/SANCTION/sanctn.wp.htm*, retrieved Oct. 30, 2000.

[61] European-American Business Council, *Is the Price Too High? The Cost of U.S. Sanctions Policies*, October 1997, p. 49. This survey was partially funded by the European Commission.

[62] Ibid., p. 62.

[63] Ibid., p. 18.

[64] Concerns about the costs to U.S. taxpayers of U.S. economic sanctions with respect to Cuba were expressed by Lissa Weinmann, Communications Director, Americans for Humanitarian Trade with Cuba, testimony before the USITC, Sept. 19, 2000, transcript, p. 312.

compliance programs,[65] and the general difficulty of meeting the requirements set by the United States that authorized trade with Cuba be conducted only with a proven "independent" entity.[66]

Current Impact

Cuba most likely would have many economic difficulties today even in the absence of U.S. economic sanctions. Foreign business guides indicate that Cuba presents both business opportunities and challenges. However, most of those challenges appear to be independent of U.S. sanctions and to stem from Cuban domestic economic policies such as "inefficiencies caused by bureaucratic central planning, outdated and inappropriate technology, and poorly motivated workers,"[67] as well as a shortage of international financing due to Cuba's debt service moratorium since 1986.[68] Thus, U.S. sanctions do not appear to be the only impediments to U.S.-Cuban economic relations, despite the close geographic proximity that would appear to make the two countries natural trading partners.[69]

As mentioned in chapter 1, Cuba typically selects its trade and investment partners based on political considerations rather than economic factors. Such political considerations include a preference to maintain economic ties with existing partners and the desire to avoid becoming economically dependent on a single country. Thus, Cuba may prefer to maintain economic relations with more distant, less competitive partners than to engage in a significant trade relationship with the United States even in the absence of sanctions. As one witness at the Commission's hearing for this investigation testified—

> The elimination of restrictions by the . . . United States on exports to, imports from, the provision of services to, and investments within Cuba would not result in an immediate shift or in a substantial shift by . . . Cuba from its traditional commercial relationships. Those who believe so have the courage of their ignorance. . . . Cuba is not to be expected today or tomorrow to

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[65] Discussions about the impact of sanctions compliance programs on the U.S. private sector are provided by John S. Kavulich, President, U.S.-Cuba Business Council, and Thomas Cox, Director, U.S.-Cuba Business Council, testimony before the USITC, Sept. 19, 2000, transcript, pp. 225 and 227, respectively.

[66] Richard Bell, President and CEO, USA Rice Federation, testimony before the USITC, Sept. 19, 2000, transcript, p. 96. According to U.S. Department of Commerce, authorized exports of food and certain agricultural commodities may only be sent to "independent non-government entities, individuals or organizations in Cuba," and exporters "must demonstrate . . .that the prospective end-user is independent from the Cuban government." Bureau of Export Administration, U.S. Department of Commerce, found at *http://www.bxa.doc.gov/factsheets/CubaFacts.html*, retrieved Nov. 8, 2000.

[67] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, June 1999, p. 4, at *http://www.dfait-maeci.gc.ca/latin/viewdocument-easp?continent=Latin&country=11&name=Cuba*, retrieved Jan. 28, 2000.

[68] *Exporter à Cuba: l'Essentiel d'un Marché*, (Centre Francais du Commerce Exterieur, 1999), p. 41.

[69] The likely influence of geographic proximity on U.S. and Cuban trade patterns was one of the factors analyzed in the Commission's gravity model. The gravity model is discussed in more detail in Appendix F.

> purchase substantial quantities of rice from Arkansas, peas from Washington, wheat from Kansas, pork from North Carolina, milk from Wisconsin, or chicken from Maryland, solely because of price differentials and quality differentials.[70]

Cuba is a low-income and low-productivity economy, although generally praised for the high level of skills of its population and significant accomplishments in such areas as biotechnology research. According to the Congressional Budget Office (CBO), the United States tends to apply economic sanctions, "where the least harm can come to well-organized domestic interests. Thus, the [U.S.] government often uses sanctions in cases in which there is little trade to disrupt in the first place."[71] Similar assessments of Cuba's limited immediate potential as a U.S. trading partner were provided by individuals who testified at the Commission's hearing for this investigation.

> Once we lift the embargo, Cuba will not become a major purchaser of our farm goods or manufactured products overnight. . . . We need to be realistic. With Cuba's failed economy and low income, ending the embargo won't lead to a huge surge of American products into Cuba.[72]

> [I]f U.S. sanctions were lifted today we would anticipate limited U.S. export opportunities . . . . because we don't think that commercially meaningful business will occur until fundamental economic and political reform takes place in Cuba.[73]

Post-Soviet Cuba continues to face the problem of a shortage of foreign exchange. The availability of foreign exchange—earned through export of Cuban goods and services, access to foreign financing, and remittances—is a key determinant of Cuba's ability to purchase U.S. goods and services.[74] The general consensus of economic researchers is that, "[g]iven Cuba's scant foreign exchange, its ability to buy U.S. products remains very limited."[75] Some researchers have observed that Cuba's access to foreign exchange has improved in recent years,[76] as a result of capital inflow from remittances and tourism sector income, and that income from tourism and petroleum exports could increase significantly in the near term.[77] However,

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[70] John S. Kavulich, President, U.S.-Cuba Trade and Economic Council, testimony before the USITC, Sept. 19, 2000, transcript, pp. 153 and 156-157.

[71] CBO, *The Domestic Costs of Sanctions on Foreign Commerce*, March 1999, p. 49.

[72] Senator Max Baucus (D-Montana), testimony before the USITC, Sept. 19, 2000, transcript, p. 13.

[73] J.M. Green, Director for Latin American Sales, Caterpillar, Inc., testimony before the USITC, Sept. 20, 2000, transcript, p. 370.

[74] Paula Stern, The Stern Group, testimony before the USITC, Sept. 19, 2000, transcript, p. 190. The constraint on Cuba's capacity to import imposed by that country's export performance is also discussed by Bureau of East-West Trade, U.S. Department of Commerce, *United States Commercial Relations with Cuba: A Survey* (Washington, DC, August 1975, p. 29.

[75] Jaime Suchlicki, "The U.S. Embargo of Cuba," Institute for Cuba and Cuban American Studies Occasional Paper Series, University of Miami, June 2000, p. 14.

[76] United Nations Economic Commission for Latin America and the Caribbean (ECLAC), *La Economía Cubana: Reformas estructurales y desempeño en los noventa* (Mexico City: United Nations, 1997), p. 65.

[77] Paula Stern, see note 68, transcript, pp. 190 and 194, and Philip Peters, Vice President, Lexington Institute, testimony before the USITC, Sept. 19, 2000, transcript, p. 194. Remittances and tourism are discussed in more detail in chapter 3. The Commission's gravity model described in Appendix F also estimated the potential impact on U.S.-Cuban bilateral trade of additional net foreign exchange flows from the United States to Cuba from remittances, tourism, telecommunication services, and foreign direct investment. The gravity model estimates are discussed below.

individuals who testified at the Commission's hearing for this investigation reported that, for Cuba to become a significant U.S. trading partner, the United States would have to incur the costs of providing trade credits or other financing for Cuba.

> [J]ust looking at the economics of Cuba today, there may be some purchases that can be arranged. But I think that they will not begin to meet the appetites of . . . [U.S.] industries. And there will be inexorably pressure to lift . . . [credit] limits so that the American taxpayer does in fact underwrite this trade."[78]

> Cuba . . . has no shortages of trading partners. . . .The only obstacle is that Cuba lacks the economic resources to purchase goods and services in a sufficient amount to meet the country's needs.[79] . . . I think that we don't believe, any of us, that Cuba can take advantage of purchasing American goods unless somehow they're given the credit to be able to purchase it.[80]

Thus, removing the sanctions and resuming economic relations with Cuba might create costs for the U.S. Government and U.S. taxpayers—the costs of U.S. government trade credits and financing—as well as opportunities for the U.S. private sector.

Analysis of Impact

To assess the current impact of U.S. sanctions with respect to Cuba on the U.S. economy, the Commission estimated what potential U.S.-Cuban bilateral trade and foreign exchange flows might have been in the absence of sanctions for a recent time period. Those estimated trade flows were then used to assess the effects on U.S. output, employment, and wages. The same estimates of potential U.S.-Cuban bilateral trade and foreign exchange flows in the absence of sanctions were used in chapter 3 to assess the impact on Cuba.

The economic literature extensively documents Cuba's current agricultural and industrial production constraints, relatively low productivity, and shortage of foreign exchange.[81] Moreover, as discussed above, Cuba typically selects its trade and investment partners based on political considerations rather than on economic factors. Consequently, the analysis this report assumes that aggregate Cuban exports would not change in the absence of sanctions. Cuba's ability to export depends on its ability to produce exportable commodities; while Cuba's ability to produce these goods may increase as part of ongoing economic reforms and the current economic recovery described in chapter 3 of this report, production would not increase specifically as a consequence of the removal of U.S. sanctions. Similarly, Cuba's import demand is constrained by the country's foreign exchange shortage. However, it is possible that

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[78] Frank J. Gaffney, President and CEO, The Center for Security Policy, testimony before the USITC, Sept. 19, 2000, transcript, p. 98.

[79] Lazaro Alvarez, Committee Chairman, United Cuban Organizations, testimony before the USITC, Sept. 19, 2000, transcript, pp. 244-245.

[80] Ibid., p. 272.

[81] These issues are discussed in more detail in chapter 3. For further in formation, see ECLAC, *La Economía Cubana* (Mexico City: United Nations, 1997), pp. 240-241 and 272-279.

aggregate Cuban imports might increase in the absence of U.S. sanctions if Cuba experiences increased foreign exchange inflows from the United States as a result of tourism, telecommunications services payments, and foreign direct investment. Thus, this analysis assumes that any potential U.S.-Cuban bilateral trade would occur as a result of diversion of trade away from Cuba's current trading partners (rather than the result of increased Cuban production of exportable goods and/or increased Cuban demand for imports), except to the extent that increases in Cuba's net foreign exchange position (through increases in payments from telecommunication services, travel and tourism, and foreign direct investment in the absence of sanctions) would increase Cuban import capacity.

Recognizing these inherent constraints on any analysis of sanctions with respect to Cuba, the Commission constructed approximate estimates of potential U.S.-Cuban merchandise trade and additional sources of foreign exchange available to Cuba in the absence of U.S. sanctions. These estimates are based on information obtained from the telephone survey, the public hearing and written submissions, foreign and domestic travel, a review of relevant recent data and literature, and the gravity model described in Appendix F. The estimates reflect hypothetical U.S.-Cuban merchandise trade against a baseline reflecting Cuba's annual average merchandise trade with the world during 1996-98.[82]

Estimated U.S.-Cuban Trade

Estimated U.S.-Cuban bilateral trade in the absence of sanctions is shown in table 2-3. Estimated annual U.S. exports to Cuba in the absence of sanctions would have been approximately $658 million to approximately $1 billion based on average 1996-98 trade data, or about 17 to 27 percent of total Cuban imports from the world. This estimate would increase marginally, to $684 million to $1.2 billion, if potential increases in Cuba's supply of foreign exchange in the absence of U.S. sanctions (discussed in more detail below) were spent entirely on imports, spread proportionately between U.S. and non-U.S. suppliers.[83]

Estimated U.S. imports from Cuba would have been $69 million to $146 million, based on average annual 1996-98 trade data,[84] or about 7 to 15 percent of total Cuban exports to the world, excluding sugar.[85] These shares are significantly lower than

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[82] Cross-country regression analyses feeding into this estimate were performed for data from calendar year 1997.

[83] Cuba's estimated potential additional foreign exchange earnings in the absence of sanctions, other than from merchandise trade, amount to 4 to 11 percent of Cuba's imports from the world during 1996-98.

[84] The removal of U.S. sanctions probably would induce some exports of Cuban-origin nickel from Canada to the United States. Estimated U.S. imports from Canada of Cuban-origin nickel in the absence of U.S. sanctions would increase by $55 million to $72 million. Nickel is discussed in greater detail in chapter 6.

[85] The amount of Cuban sugar that would enter the United States in the absence of U.S. sanctions would be determined by U.S. sugar import policies under U.S. WTO obligations. Sugar is discussed more fully in chapter 5.

Table 2-3
Estimated U.S.-Cuban trade in the absence of U.S. sanctions, 1996-98 annual average

Sector	Base value of Cuban trade with the world, 1996-98 average annual	Estimated U.S. share of Cuban trade	Estimated U.S.-Cuban trade
	million dollars	*percent*	*million dollars*
Cuban imports (U.S. exports)			
Total	3,815	17-27	658-1,047
Agriculture (selected products)	559	43-58	241-327
Intermediate and manufactured goods (selected products)	1,127	18-26	204-294
Other products	2,129	10-20	213-426
Cuban exports (U.S. imports)			
Total	1,817	[1]7-15	[1]69-146
Agriculture (selected products)	1,214	[1]13-25	[1]45-89
Intermediate and manufactured goods (selected products)	501	4-7	19-37
Other products	101	5-20	5-20
Cuban trade deficit with the United States	([2])	([2])	512-978[1]

[1] Excludes estimated average annual Cuban sugar exports of $816 million during 1996-98. Sugar is discussed in more detail in chapter 5.
[2] Not applicable.

Note.—The range of the estimated value of U.S.-Cuban trade in the absence of sanctions is equal to the base value of Cuban trade with the world times the range of the estimated U.S. share of Cuban trade. The product of the estimated shares times the base value may not exactly equal the estimated U.S.-Cuban trade value due to rounding.

Sources: 1996-98 average annual base value of Cuban trade data from various sources (see appendix G). Estimated U.S. share of Cuban trade and estimated U.S.–Cuban trade data are derived from USITC staff estimates and the USITC gravity model.

comparable shares for 1958—when 70 percent of total Cuban imports were sourced from the United States and 64 percent of total Cuban exports were shipped to the United States.[86]

Estimated U.S.-Cuban Foreign Exchange Flows

In the absence of sanctions, the Commission estimated that net outflows of foreign exchange from the United States to Cuba for telecommunications services, travel and tourism services, and foreign direct investment would have been $135 million to $420 million annually (table 2-4). This estimate assumed that remittances would remain

[86] U.S. Department of Commerce, Domestic and International Business Administration, Bureau of East-West Trade, *United States Commercial Relations with Cuba: A Survey*, August 1975, p. 38.

Table 2-4
Estimated additional net foreign exchange flows from the United States to Cuba in the absence of U.S. sanctions

Sector	Estimated additional net foreign exchange flow from the United States to Cuba
	Million dollars
Total	135-420
Telecommunication services	15-30
Travel and tourism	100-350
Foreign direct investment	20-40

Source: USITC estimates.

unchanged in the absence of sanctions; the Commission found this to be a reasonable assumption, given the wide range of reported estimates of remittances as discussed in chapter 3. Cuba's foreign exchange supply would have increased by the same estimated amount, $135 million to $420 million, since changes in Cuba's foreign exchange position arising from exports to the United States or imports from the United States would likely be offset by corresponding reductions in exports to or imports from other sources.

The estimated change in the foreign exchange position of the United States (current account plus capital account) is equal to the estimated increase in the U.S. merchandise trade balance implied by changes in U.S.-Cuban trade, minus the net outflows of foreign exchange from the United States to Cuba not associated with merchandise trade. The above estimates of potential U.S.-Cuban bilateral trade imply that the United States would run a merchandise trade surplus with Cuba on the order of $512 million to $978 million dollars,[87] which exceeds the estimated outflow of foreign exchange from the United States to Cuba of $135 million to $420 million not associated with merchandise trade. Thus, net foreign exchange availability in the United States and Cuba are estimated to increase simultaneously, with the difference made up by a decrease in Cuba's net imports from other trading partners.

Effects on U.S. Output, Employment, and Wages

The estimated current impact of U.S. sanctions with respect to Cuba on U.S. output, employment, and wages, is negligible, primarily because of the small size of the Cuban economy relative to the U.S. economy. The increase in U.S. aggregate demand associated with the removal of sanctions would be approximately equal to the estimated reduction in the U.S. trade deficit associated with the removal of sanctions, $512 million to $978 million. This is approximately 0.01 percent of U.S. gross domestic product (GDP). Even in the most extreme case, in which the United States were to supply

[87] The lower bound is the difference between $658 million of U.S. exports and $146 million of U.S. imports, while the upper bound is the difference between $1,047 million of U.S. exports and $69 million of U.S. imports. This calculation includes imports from Cuba and imports of nickel metal from Canada.

all of Cuba's imports (currently about $4 billion annually), without importing anything from Cuba, the impact of such a scenario on U.S. aggregate demand would amount to less than 0.05 percent of U.S. GDP. The effect of such changes on macroeconomic variables such as output, employment, or wages would be negligible.

Similarly, net outflows of foreign exchange from the United States to Cuba resulting from the simultaneous net trade surplus and additional outflows of foreign exchange, at $7 million to $735 million,[88] amount to no more than 0.6 percent of the U.S. current account deficit for 1997 of $143 billion dollars, a comparably small amount.

[88] This is the difference between the above estimates for the potential improvement in the U.S. trade balance and the outflows of additional foreign exchange, evaluated at upper and lower bounds.

CHAPTER 3
Overview of the Cuban Economy and the Impact of U.S. Sanctions

This chapter provides an overview of the Cuban economy from the late 1950s to the present. Information highlights Cuba's overall economic performance as well as Cuba's trade and investment policies. This chapter also describes the historical and current effects of the U.S. economic sanctions with respect to Cuba on the Cuban economy.[1]

Background: Cuba in the 1950s

Historic economic links between Cuba and the United States were based on preferential access granted by the United States for Cuban sugar.[2] From the time the United States granted Cuba its independence in 1902 through the 1950s, Cuba was an important source of sugar, cigars, and unprocessed minerals for the United States. U.S. investors gradually diversified and expanded their activities in Cuba, moving away from sugar and investing in a range of sectors of the Cuban economy.[3]

As Cuba's leading trade partner, the United States accounted for 67 percent of Cuba's exports and 70 percent of its imports in 1958.[4] The United States also was Cuba's main source of both private and official capital. The U.S. Export-Import Bank, the primary source of official U.S. loans for Cuba at that time, disbursed $11 million for development projects in Cuba in 1958.[5] U.S. tourists were the mainstay of the Cuban tourism industry, making Cuba the largest Caribbean tourism market in the 1950s.[6]

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[1] Standard and complete economic data on Cuba for the period 1955 to the present are not available—the Cuban Government has published such data only sporadically and has not regularly provided such data to reporting institutions such as the International Monetary Fund. Consequently, the economic data presented in this chapter cover only selected years and are intended to be illustrative of trends indicated in the analysis, rather than to provide comprehensive time-series statistics for the entire period.

[2] Adolf A. Berle, "The Cuban Crisis: Failure of American Foreign Policy," *Foreign Affairs*, vol. 39, no. 1, Oct. 1960, p. 40. The Cuban sugar sector is discussed in more detail in chapter 5.

[3] U.S. Department of State, Bureau of Inter-American Affairs, "Zenith and Eclipse: A Comparative Look at Socio-Economic Conditions in Pre-Castro and Present Day Cuba," Feb. 9, 1998, at *http://www.123cuba.com/Economic-Conditions-Cuba.html*, retrieved Nov. 20, 2000.

[4] United Nations Economic Commission for Latin America (ECLAC), *Economic Survey of Latin America, 1963*, (New York: United Nations, 1965), p. 273.

[5] ECLAC, *Economic Survey of Latin America, 1958*, (Mexico City: United Nations, 1959), p. 44.

[6] Arthur Anderson, "Cuba—Tourism as a Replacement Industry," Spring 1996, at *http://www.hotel-online.com/neo/trends/anderson*, retrieved June 30, 2000. Travel and tourism services are discussed in more detail in chapter 4.

In part because of Cuba's close economic integration with the United States before 1959, Cuba's economic and social indicators ranked among the highest in the world.[7] By 1957, Cuba had an advanced health sector providing the lowest infant mortality rate in Latin America (13th lowest in the world), and the third highest number of physicians and dentists per capita, comparable to the Netherlands and higher than in the United Kingdom and Finland. Cuba also ranked among the highest in Latin America at that time in terms of literacy rate, food consumption (daily calories consumed), and access to mass media.[8]

Cuba's economy unraveled during 1958, as political unrest and economic damage caused by revolutionary forces disrupted economic production and precipitated capital flight.[9] Cuba's tourism industry collapsed as the numbers of U.S. tourists declined. Economic problems continued into 1959, after the Castro government assumed power, and conditions worsened as low world sugar prices further drained Cuba's foreign exchange.[10]

Cuba during 1960-89

After assuming power, the government of Fidel Castro implemented measures to transform the Cuban economy through "radical changes and adjustments directed towards the formation of a different economic system."[11] Fidel Castro proclaimed Cuba to be a socialist country in 1961. Key elements of Cuba's economic transformation were:

- nationalization of the means of production;
- reorganization of the public sector for direct management of production and trade; and
- centralized planning of virtually all economic activity.[12]

Cuba also significantly increased spending on health care, education, and the armed forces.[13] Cuba's 5-year economic plans eventually were coordinated with similar

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[7] U.S. Department of State telegram, "Socio-Economic Conditions in Pre-Castro Cuba," message reference No. 235216, U.S. Department of State, Dec. 17, 1997.

[8] See note 3.

[9] Louis A. Pérez, *The United States and the Americas: Cuba and the United States* (Athens, GA: University of Georgia Press, 1997), pp. 232-235.

[10] ECLAC, *Economic Survey of Latin America: 1960, Part One, Short-Term Changes in Product and Income*, May 1961, E/CN.12/565, pp. 91-92. ECLAC reported that the depression on world sugar markets was due to lower exports to trading partners other than the United States (Cuba's exports to the United States at that time were guaranteed on an annual basis by the U.S. quota), "chiefly due to the weakening of world market demand as a result of the higher degree of self-sufficiency achieved in that year by the leading European importers."

[11] See note 5, p. 259.

[12] Ibid.

[13] Ibid., pp. 262-267.

plans of the Soviet bloc countries.[14] One source reports that, by 1970, Cuba was receiving one-half of all Soviet foreign assistance.[15]

Role of Soviet Economic Assistance

The dominant feature of the Cuban economy between 1960 and 1989 was massive Soviet economic assistance, estimated to have peaked at nearly $6 billion annually in the late 1980s.[16] The Soviet bloc countries provided three types of economic assistance for Cuba: guaranteed export markets for Cuba's main exports, sugar and nickel; long-term supply and delivery agreements with prices set on terms favorable to Cuba; and trade credits to support Cuba's ability to import other needed products. [17] The cornerstone of the Cuban-Soviet relationship was exports of Cuban sugar and, to a lesser extent, nickel, in exchange for Soviet petroleum products and industrial machinery.

Impact of OAS Multilateral Economic Sanctions

Cuba was adversely affected by multilateral economic sanctions jointly applied by the members of the Organization of American States (OAS)[18] in force between July 1964 and July 1975. The multilateral OAS sanctions overlapped U.S. unilateral economic sanctions. Cuban imports from Latin America declined from $84 million in 1958 to $2.5 million in 1965.[19] Cuban trade with Latin America hit a low of barely $1 million in exports and $1 million in imports in 1969. However, in the early 1970s a number of Latin American countries resumed trade with Cuba despite the OAS sanctions. Cuban imports from the rest of Latin America quickly rose from $31 million in 1973, to $111 million in 1974, to $230 million in 1975.[20]

Trade and Investment Policies and Trends

Cuba was a founding member of the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO).[21] Cuba also was a founding member of

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[14] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, June 1999, p. 8, at *http://www.dfait-maeci.gc.ca/latin/viewdocument-easp?continent=Latin&country=11&name=cuba*.

[15] *Exporter à Cuba: l'Essentiel d'un Marché*, (Paris: Centre Francais du Commerce Exterieur, 1999), p. 34.

[16] U.S. Department of State, "U.S.-Cuban Relations," at *http://www.state.gov/www/regions/wha/cuba/policy.html* retrieved Oct. 3, 2000.

[17] ECLAC, *La Economía Cubana: Reformas estructurales y desempeño en los noventa* (Mexico City: United Nations, 1997), p. 62.

[18] The OAS includes all of the countries of the Western Hemisphere (Canada joined the OAS in 1990). Cuba is a member of the OAS, but the current government of Cuba was excluded from voting and participating in OAS activities in 1962. Information on the OAS at *http://www.oas.org*.

[19] IMF, *Direction of Trade Statistics Yearbook*, various editions.

[20] Ibid.

[21] Cuban is a signatory to the major international agreements on intellectual property including the Paris Convention and the 1994 Agreement on Trade-Related Aspects of International Property Rights (TRIPs) under the WTO.

the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the World Bank), but later withdrew from membership in the IMF and, as a result, from other international organizations,[22] in 1964[23]—making Cuba ineligible for financial assistance from those organizations regardless of the status of U.S. economic sanctions. According to recent reports, Cuban governmental officials have expressed little interest in rejoining these institutions.[24]

Trade policies and trends

By 1961, the Soviet Union had supplanted the United States as Cuba's leading trade partner (figures 3-1 and 3-2). Cuba's trade with Western Europe initially declined after the U.S. sanctions were implemented in 1960, but increased after 1963 due primarily to increased sugar sales under new trade agreements that Cuba signed with France, Spain, and the United Kingdom.[25]

While working to increase exports, the Cuban Government also implemented measures to reduce imports to conserve scarce foreign exchange. An exchange control regime was introduced in 1959 along with import surcharge fees ranging from 30 to 100 percent ad valorem.[26] To further control imports, Cuba's Banco de Comercio Exterior was made the country's sole importer of a list of basic goods including certain food, basic machinery, pharmaceuticals, raw cotton, and other products.[27]

Cuba signed its first major trade and economic agreement with the Soviet Union in February 1960, under which Cuban sugar was provided in exchange for Soviet crude oil and petroleum products, wheat, fertilizer, iron, machinery, and trade credits. That agreement allowed Cuba to claim two large, guaranteed sugar export markets[28]—the Soviet Union and, until economic sanctions were imposed, the United States. Cuba joined the socialist trade and economic organization the Council for Mutual Economic Assistance (CMEA)[29] in 1972 and conducted most of its trade with CMEA countries and China using soft currency[30] and barter arrangements.

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[22] Only members of the IMF can be members of the World Bank. Membership in the International Development Association (IDA), International Finance Corporation (IFC), and Multilateral Investment Guarantee Agency (MIGA) are conditional on World Bank membership. World Bank, "Membership in the World Bank Group," at *http://www.worldbank.org/html/extdr/about/members*, retrieved Nov. 16, 2000.

[23] Cuba stopped providing the IMF with required economic data in 1960. Joaquin P. Pujol, "Cuba in Transition," paper presented at the 1st annual meeting of the Association for the Study of the Cuban Economy (ASCE), Miami, FL, Aug. 16, 1991, at *http://lanic.utexas.edu/la/cb/cuba/asce/cuba1/pujol.html*, retrieved Nov. 16, 2000.

[24] U.S. Department of State telegram, "Cuban Central Bank President Expresses Little Interest in Joining IMF," message reference No. 81271, prepared by U.S. Department of State, May 4, 1999.

[25] ECLAC, *Economic Survey of Latin America, 1963*, p. 274.

[26] Ibid., p. 263.

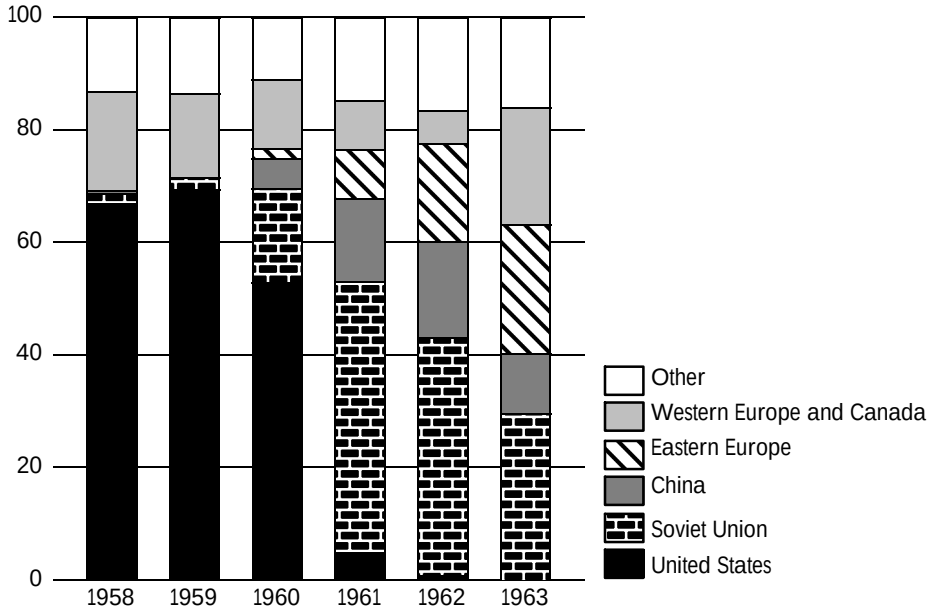
[27] ECLAC, *Economic Survey of Latin America, 1960*, p. 92.

[28] Ibid. Sugar is discussed in more detail in chapter 5.

[29] The Council for Mutual Economic Assistance (also known as Comecon) was established in 1949, and its members included the Soviet Union, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, Cuba, Mongolia, and Vietnam. Its purpose was to help members develop their economies in accordance with socialist economic principles and organization. CMEA was disbanded in 1991.

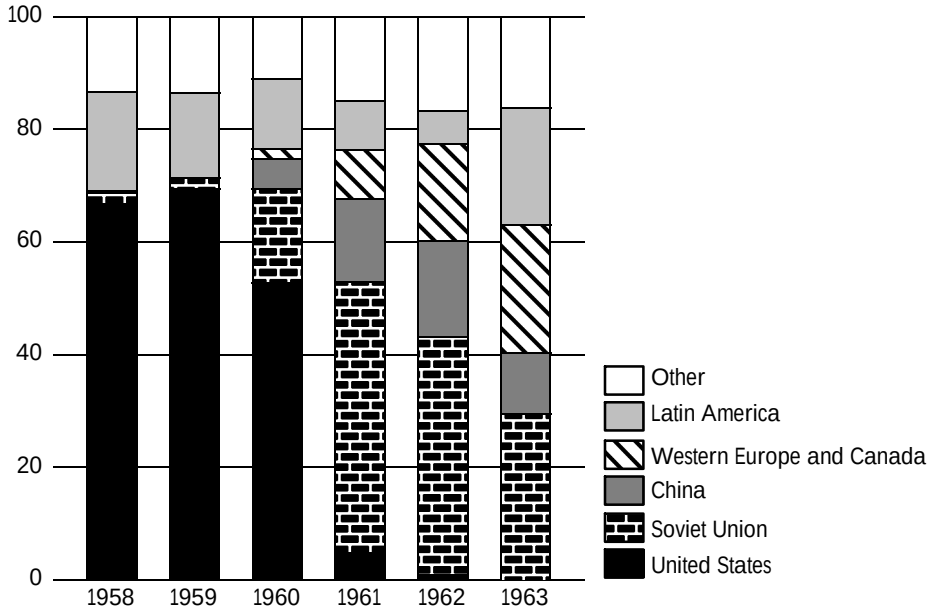
[30] The term "soft currency" means a currency that is not freely convertible and is not traded on international markets; "hard currencies," such as the U.S. dollar and currencies of most nonsocialist currencies of the world, are freely convertible and trade on international markets.

Figure 3-1
Cuba: Share of exports to leading partners, 1958-63



Source: United Nations, ECLAC, *Economic Survey of Latin America*, 1963, table 263, p. 273

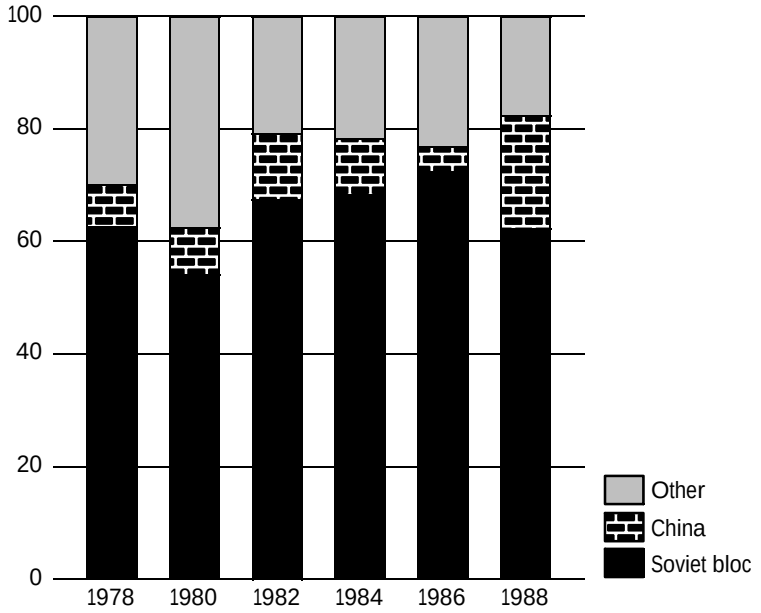
Figure 3-2
Cuba: Share of imports from leading trade partners, 1958-63



Source: United Nations, ECLAC, *Economic Survey of Latin America*, 1963, table 263, p. 273

Trade with CMEA countries provided a form of indirect economic assistance to Cuba. Under 5-year agreements, CMEA countries paid above-market prices for Cuban raw materials, primarily sugar and sugar by-products and ores, providing Cuba an export subsidy. Some 60 to 80 percent of Cuba's annual sugar exports during this period were destined for the Soviet bloc countries and China (figure 3-3). Soviet oil for Cuba was typically priced below world market prices—giving Cuba an import subsidy.

Figure 3-3
Cuba: Sugar exports to leading markets, by share, 1978-88



Source: Economist Intelligence Unit, *Cuba Dominican Republic, Haiti, Puerto Rico*, various years.

In addition, Cuba often resold Soviet oil for hard currency at the higher, world market price.[31] This system generally worked to Cuba's benefit. However, because the CMEA countries used 5-year moving averages based on world prices to calculate prices for intra-socialist-traded commodities, this pricing policy worked against Cuba in the mid-1980s, when world oil prices declined. Cuba's trade arrangements with CMEA countries also were adversely affected by fluctuations in Cuban sugar crop yields. Cuba was forced to purchase sugar from other sugar-producing countries, such as Brazil, in bad crop years to resell to the Soviet Union to meet Cuban sugar export commitments.[32]

Investment policies and trends

The Cuban Government has controlled foreign investment since 1959, and no investment has been allowed to occur without official government approval or outside

[31] ECLAC, *La Economía Cubana*, p. 63.

[32] Economist Intelligence Unit (EIU), *Quarterly Economic Review: Cuba, Dominican Republic, Haiti, Puerto Rico*, No. 4, 1983, p. 11.

of central government control. Like trade, foreign investment in Cuba generally has been administered according to centrally planned economic criteria and policy goals rather than market forces.[33] Moreover, the large amounts of Soviet economic assistance meant that Cuba did not particularly need any other foreign investment.

> For its first three decades, Cuba's socialist government largely kept foreign capital investment at arm's length. The reason had nothing to do with socialist theory . . . . Rather, the Cuban revolution was intent on avoiding the heavy foreign ownership and perceived evils of . . . business activity. With the support provided by aid and trade from the Soviet bloc, Cuba could afford to exclude foreign capital.[34]

Cuba began to actively seek foreign investment after the mid-1980s, particularly as it became increasingly apparent that Soviet economic assistance was to be reduced in light of political and economic events at that time in the Soviet Union. Data on historical foreign investment trends in Cuba are limited because Cuba had no formally established foreign investment regime until 1982, and measurable investment did not occur until the late 1980s. According to one source, by 1990 total foreign investment commitments (not all of which were actually implemented) to Cuba were over $800 million[35]—the majority of which was destined for the tourism sector.[36]

Tourism

Approximately 275,000 to 350,000 tourists, primarily from the United States, visited Cuba annually in the late 1950s.[37] Cuba's tourism sector remained depressed after the Castro government assumed power. Tourist arrivals from Soviet bloc countries reportedly never exceeded 30,000 per year. [38] Tourist visits to Cuba increased in the late 1970s, particularly as a growing number of U.S. citizens took advantage of relaxed U.S. restrictions on travel to Cuba.[39] To promote the development of a modern tourism sector, Decree Law 50 of 1982, Cuba's first foreign investment regulations, authorized foreign private investors to form joint ventures as minority partners with Cuban government-owned enterprises.[40] Decree Law 50 required that a Cuban partner participate in management, and that Cuban labor be used in the majority of positions. No joint ventures were established under Decree Law 50 until the late 1980s, however, because of remaining restrictions in the Cuban investment regime.[41]

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[33] ECLAC, *La Economía Cubana*, p. 166.

[34] Philip Peters, *Foreign Investment in Cuba*, Alexis de Tocqueville Institution, March 1999, p. 2.

[35] EIU, *Country Report: Cuba, Dominican Republic, Haiti, Puerto Rico*, No. 3, 1990, p. 20.

[36] ECLAC, *La Economía Cubana*, p. 169.

[37] Arthur Anderson, "Cuba—Tourism as a Replacement Industry," Spring 1996, at *http://www.hotelonline.com/neo/trends/anderson*, retrieved June 30, 2000; and ECLAC, *La Economía Cubana*, p. 168. Travel and tourism services are discussed in more detail in chapter 4.

[38] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 12.

[39] The United States prohibited travel to Cuba in February 1963. In March 1977, the U.S. Government let lapse restrictions on U.S. travel to Cuba by U.S. citizens. U.S. economic sanctions with respect to Cuba and key changes in U.S. travel policies are discussed in more detail in chapter 2.

[40] ECLAC, *La Economía Cubana*, p. 173.

[41] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 12.

The Cuban Government reorganized the tourism sector in 1987 and established a government-owned company, Cubanac7/8n, to develop the industry by attracting foreign partners[42]—making tourism the first sector opened to foreign investment in post-revolutionary Cuba.[43] Foreign partners were given a 10-year tax holiday and the right to remit profits in hard currency. Cubanac7/8n entered into its first joint venture under Decree Law 50 in 1988 with a Spanish company to build and operate a hotel in Varadero, Cuba's main beach resort area; the hotel opened in 1990.[44]

Cuba's Economy in the 1990s

Loss of Soviet Aid and Economic Crisis

The CMEA suffered a massive economic shock as a result of the breakup of the Soviet Union. Soviet bloc economic assistance to Cuba, estimated to be $4 billion to $6 billion annually in 1990,[45] declined sharply after 1989 as increasing political and economic problems in the Soviet Union led to the eventual Soviet breakup. The CMEA began conducting all of its trade in hard currency in January 1991. With the loss of Soviet bloc economic assistance, Cuba experienced a sharp reduction in foreign trade, credit, aid and oil supply—all previously largely provided by the Soviet Union.[46]

Nearly 30 years of dependence on Soviet economic assistance and subsidized trade had caused structural rigidities in the Cuban economy, which made it difficult for Cuba to find alternate suppliers or markets in the short term. According to ECLAC, those structural rigidities contributed to Cuba's high income elasticity of import demand—meaning that Cuba's economic growth was highly dependent on imports such as fertilizer, pesticides, petroleum, and machinery, formerly provided on subsidized terms by the Soviet bloc countries.[47] Emergency measures halted all but essential imports and channeled all available resources into essential services.[48] For example, the loss of low-priced Soviet oil plunged Cuba into an energy crisis in the early 1990s during which electricity was rationed to all but priority economic sectors such as the foreign-exchange-earning tourism and biotechnology industries.[49]

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[42] Ibid.

[43] ECLAC, *La Economía Cubana*, p. 169.

[44] EIU, *Country Report: Cuba, Dominican Republic, Haiti, Puerto Rico*, No. 3, 1990, p. 19.

[45] CIA, *World Fact Book*, at *http://www.odci.gov*, retrieved Aug. 1, 2000. Another source provided the following breakdown of annual Soviet economic aid to Cuba: $5 billion of economic assistance; $1 billion of military assistance; 10 million tons of petroleum. *Exporter à Cuba: l'Essentiel d'un Marché*, p. 34.

[46] Carmelo Mesa-Lago, "Assessing Economic and Social Performance in the Cuban Transition of the 1990s," *World Development*, 1998, vol. 26, No. 5, pp. 857-876.

[47] ECLAC, *La Economía Cubana*, p. 63.

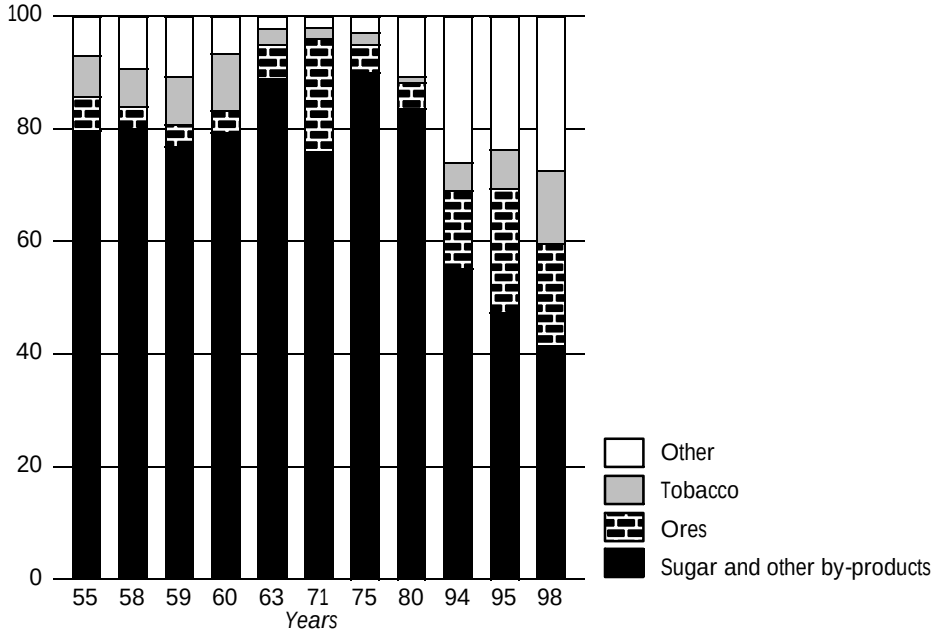
[48] Ibid., p. 152.

[49] USITC staff interview with officials from the Finlay Institute, Havana, July 18, 2000.

Agricultural and industrial production was disrupted because of shortages of fuel and equipment previously obtained from the Soviet bloc.[50] By 1994, agricultural production had fallen 54 percent from 1989 levels, and food consumption had declined.[51] One written submission to the Commission reported declines in Cuban food imports and milk production during 1989-93 due to the loss of imported feed and fuel.[52] While Cuba ranked as one of Latin America's most prosperous economies during the late 1950s, Cuba's 1998 per capita gross domestic product (GDP) of $1,560 was among the lowest in Western Hemisphere, ranking above only Haiti, Suriname, Nicaragua, Guyana, and Honduras.[53]

Moreover, Soviet economic assistance had not helped Cuba's long-term growth prospects by promoting economic diversification. Although described as a "relatively highly developed Latin American export economy" in 1959 and the early 1960s,[54] Cuba's basic economic structure changed very little between then and the 1980s. Sugar and sugar by-products remained by far Cuba's leading export (figure 3-4).

Figure 3-4
Cuba: Composition of leading exports, by share, 1955-98



Source: United Nations, ECLAC, *Economic Survey of Latin America, 1963, table 265, p. 274, and EIU, Cuba, Dominican Republic, Haiti, Puerto Rico*, Annual Supplement, various years.

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[50] Jorge F. Pérez-Lòpez, "The Cuban Economic Crisis of the 1990s and the External Sector," 8th Annual Meeting of the ASCE, Miami, FL, 1998, pp. 395-396.

[51] One source reports that daily caloric intake fell from nearly 3,000 calories per day in the 1980s to as low as 1,450 calories per day in 1993 (the USDA-recommended minimum is 2,100 to 2,300 calories per day). USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," *Agricultural Outlook*, October 1998, p. 26.

[52] Richard Garfield, "The Impact of Economic Sanctions on Health and Well-being,"paper prepared for the Relief and Rehabilitation Network, November 1999, written submission to the USITC, received Sept 20, 2000.

[53] EIU, *Country Profile: Cuba, 1999-2000*, table, and ECLAC, Anuario estadístico de América Latina y el Caribe 1999, table 134, at *http://www.eclac.cl/publicaciones/Estadisticas/6/lcg2066/cuentasII.pdf*, retrieved Jan. 4, 2001.

[54] ECLAC, *Economic Survey of Latin America, 1963*, p. 259.

Tobacco products, such as cigars and cigarettes, were the only manufactured products among Cuba's leading exports, "and even these are produced by a pre-industrial process."[55] The Cuban economy remained highly fuel inefficient and over-specialized in a few highly subsidized commodities provided by the Soviet bloc countries.[56] Furthermore, despite massive Soviet economic assistance Cuba remained a small global market relative to other Latin American countries. In contrast to its rank among the top Latin American exporters and importers in 1959, Cuba's global exports and imports in 1989 ($1.6 billion and $3.2 billion, respectively) were significantly below those of countries such as Chile ($8.1 billion and $6.5 billion), Colombia ($5.7 billion and $5.0 billion), and Mexico ($23.0 billion and $23.3 billion).[57]

Cuba's real GDP[58] declined by nearly 40 percent between 1989 and 1993; Cuban exports decreased by approximately two-thirds, and imports declined by three-fourths during the same period (figure 3-5). Unlike the case of a market economy, in which the collapse of export markets and loss of key suppliers would have resulted in reorientation of production and economic dislocations including unemployment and redistribution of income, ECLAC reported that the Cuban policy response was to safeguard social and income equality by rationing available foreign exchange and, effectively, protracting the adjustment period.[59] The high import requirement of Cuban production further entailed a reduction in Cuban economic activity, leading Cuba to a vicious circle in which reduced capital inflows limited Cuba's ability to procure imported inputs needed for production, leading to lower domestic production, reduced exports, and even lower capital inflows.[60] A lack of inputs and working capital adversely affected production in all sectors.[61]

To adjust to the loss of Soviet economic assistance, the Cuban Government implemented an economic adjustment program in 1990 referred to as a "Special Period in Peacetime."[62] Austerity measures were implemented to reduce domestic demand and ration available resources. Foreign exchange needed to acquire imported inputs was provided on a priority basis only to industries that generated foreign exchange.[63] When austerity measures alone proved insufficient, beginning in 1993, Cuba introduced economic reforms with market-oriented elements.[64]

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[55] EIU, *Cuba, Dominican Republic, Haiti, Puerto Rico, Annual Supplement, 1980*, p. 22.

[56] ECLAC, *La Economía Cubana*, p. 217; and Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 7.

[57] IMF, *Direction of Trade Statistics Yearbook*, various editions.

[58] The Cuban Government switched from the socialist material product accounting system to the internationally accepted national accounts system in 1996. Despite this recent change, there are inherent limitations in Cuban economic data. Among other things, officially reported data do not include Cuba's fast-growing, dollar-based informal sector. Exacerbating the problem of creating a time-series of Cuba's national income, the Government of Cuba did not publish annual statistical yearbooks after 1989, although selected statistics have been published in the 1990s. For further discussion of Cuban data limitations, see ECLAC, *La Economía Cubana*, p. 67.

[59] Ibid., p. 151.

[60] Ibid.

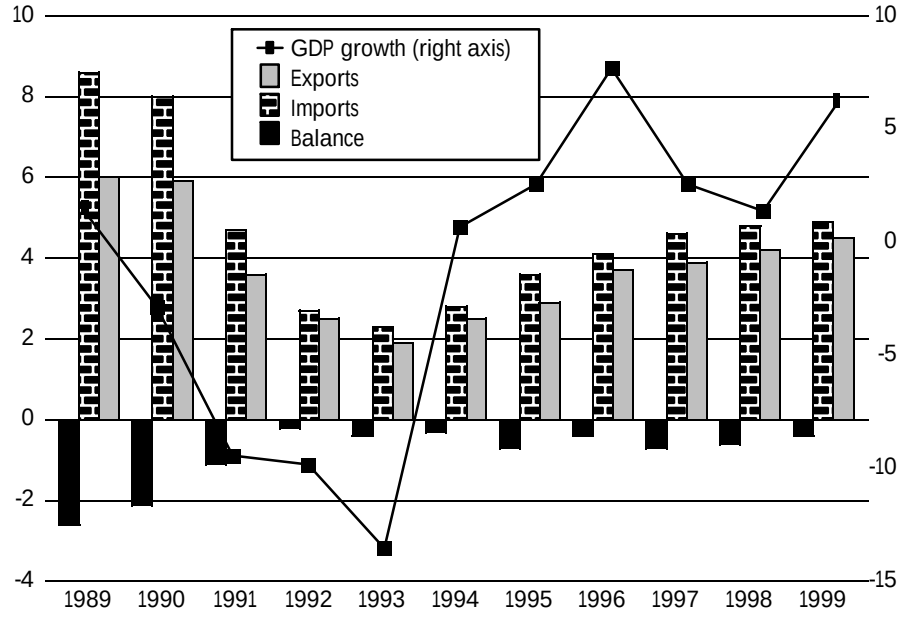
[61] EIU, *Country Profile: Cuba, 1999-2000*, pp. 21-23

[62] Fidel Castro, Speech during the ceremony marking the 30th Anniversary of the Committees for the Defense of the Revolution, on September 28, 1990.

[63] ECLAC, *La Economía Cubana*, p. 152.

[64] Ibid., p. 66.

Figure 3-5
Cuba: Trade flows and GDP growth, 1989-99



Source: ECLAC, *La Economia Cubana*, table A-1., and ECLAC, *Evolutiòn Econòmica*, table 1, p. 13.

Economic Reforms

Economic reforms were introduced to stimulate domestic production, restore import capacity, and stabilize the economy. These reforms aimed to stimulate economic growth and to better integrate Cuba into the global economy. Their practical effect was to create a "second economy" in Cuba largely outside the scope of the centrally planned economy, made up of free markets, cooperatives, small businesses, and joint ventures with foreign partners. Cuba has not abandoned central planning or the principles of economic socialism; instead, the current Cuban economy is often referred to as a "mixed socialist economy" (*economía socialista de car‡cter mixto*) in which both the government and the private sector interact to coordinate production and clear markets.[65]

The economic literature shows extended debate about the degree of commitment of the Cuban Government to market-oriented reforms, and the extent to which these reforms are intended to be permanent changes in direction for the Cuban economy, or merely stop-gap measures to maintain the socialist economic system. Several of the individuals who testified at the Commission's hearing for this investigation expressed concerns about the extent of the Cuban Government's commitment to market-oriented economic reforms.[66]

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[65] ECLAC, *La Economía Cubana*, p. 15.

[66] See William R. Hawkins, Visiting Fellow, U.S. Business and Industry Council, transcript, p. 67; Otto J. Reich, President, RMA International, Inc., transcript, p. 171; Dennis K. Hayes, Executive Vice President, The Cuban American National Foundation, transcript, p. 240; and Jaime Suchlicki, Director and Professor, Institute for Cuban and Cuban-American Studies, School of International Studies, University of Miami, testimony before the USITC, Sept. 19, 2000, transcript, p. 253; and Antonio Gayoso, Economic Advisor, Economic Advisory Services, testimony before the USITC, Sept. 20, 2000, transcript, p. 560.

Agricultural sector reforms

Cuba experimented with market-oriented agricultural reforms in the 1980s. A free market for small farmers was introduced in 1980 to allow small landholders or cooperatives made up of private farmers to sell their surplus produce directly to the public. This measure led to increased agricultural production, but concerns about profiteering led to reregulation in 1982,[67] and the markets were closed in 1986.[68]

Cuban agricultural production increased by 2.5 percent annually during the 1980s, but declined by 8 percent annually between 1989 and 1996, after the loss of Soviet economic assistance and inputs such as fertilizer and pesticides that the Soviet bloc had provided.[69] More recent liberalization measures began in 1993, when approximately two-thirds of government-owned agricultural land was redistributed to newly created cooperatives, the *Unidades Básicas de Producción Cooperativa* (UBPC, or basic units of cooperative production). UBPCs, a cross between collective farms and cooperatives, in theory enjoy managerial autonomy. A profit-sharing scheme was introduced on some farms to further boost production. Smaller parcels of land were distributed to individual farmers. A key result of these reforms was a reduction in the amount of land directly controlled by the Cuban Government.[70] ECLAC reported that from 1980 to 1997, the share of cultivated land directly under control of the Cuban Government declined from 78 to 24 percent, while the share of land in cooperatives increased from 10 to 57 percent and the share of privately held land (never entirely abolished under Cuban socialism) increased from 12 to 19 percent during the same period.[71]

Economic incentives also were introduced in the agricultural sector. Producers were permitted, after delivering their contracted amounts to the Government, to sell their surplus production on the open market. Farmers markets were created in 1994 to allow this surplus production to reach consumers at prices not regulated by the Government.[72] New agricultural markets were created in 1999 that reportedly allow even greater use of market-determined pricing.[73] The U.S. Department of Agriculture reports that farmers markets now handle 25 to 30 percent of the farm products available to Cuban customers.[74] This incentive-based farm production has helped increase the supply, diversity, and availability of food in Cuba.[75] Economic reforms, including the use of short-term international financing to improve the country's

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[67] EIU, *Cuba, Dominican Republic, Haiti, Puerto Rico*, Annual Supplement, 1983, p. 9, and Annual Supplement, 1985, p. 13.

[68] EIU, *Cuba, Dominican Republic, Haiti, Puerto Rico*, No. 3, 1990, p. 18.

[69] ECLAC, *La Economía Cubana*, pp. 240.

[70] Philip Peters, *Cuban Agriculture: Slow Road to Recovery*, Alexis de Tocqueville Institution, March 1999, p. 4; and EIU, *Country Profile: Cuba, 1999-2000*, p. 17.

[71] ECLAC, *Cuba: Evolución Económica durante 1999*, LC/MEX/L.441, July 26, 2000, table 12, p. 27.

[72] For a more detailed analysis of Cuban farmers markets, see Philip Peters, *The Farmers Market: Crossroads of Cuba's New Economy*, Lexington Institution, October 2000.

[73] ECLAC, *Cuba: Evolución Económica durante 1999*, p. 6.

[74] USDA, Economics Research Service, "Cuba's Agriculture: Collapse and Economic Reform," p. 27.

[75] Philip Peters, *The Farmers Market*, p. 1.

agricultural infrastructure,[76] have helped Cuban agriculture to recover in recent years despite a drought-related setback during 1997-98.[77]

Legalization of the use of foreign currency

As in many non-market economies, a black market existed in Cuba for foreign (primarily U.S.-origin) consumer goods that could only be paid for in hard currency.[78] Black-market activity expanded significantly during 1990-93, as the Cuban Government's austerity measures halted nonessential imports.[79] Cubans actively traded nonconvertible pesos for hard currency in the country's foreign-exchange black market. Cubans who received hard currency—mostly U.S. dollars—from relatives abroad converted dollars for pesos in the black market. (Foreign currency could only be spent in so-called dollar stores that were open primarily to diplomats and foreign visitors, but off limits to ordinary Cuban citizens.) The black market for foreign exchange contributed to the growth of excess liquidity in the Cuban economy, and drove up domestic prices. By printing money to cover the country's widening deficit, the Cuban Government exacerbated these problems and the value of the peso collapsed—giving Cubans yet another reason to prefer to use dollars.[80]

The Two Cuban Pesos

There are currently two official Cuban currencies. One is a domestic currency, the Cuban peso, which has a floating rate exchange rate, currently about 20 pesos = $1.00 (down from about 150 pesos to the dollar in 1993). However, domestic pesos are not convertible outside of Cuba and it is illegal to export them. The other Cuban currency is the convertible peso, which has a fixed exchange rate of 1 peso = $1.00, or about the same rate in use almost 40 years ago. The Cuban Government uses convertible pesos for official transactions and in economic statistics—which helps insulate Cuba from external shocks that would occur if the floating peso rate were used.

The divergence between the floating domestic peso and the fixed convertible peso exchange rates is a concern in analysis of Cuban macroeconomic and tariff data. When applied to the calculation of *ad valorem* tariffs, the market rate substantially increases the assessed value of imports and, consequently, the applicable tariff.

In addition to the two peso currencies in circulation, Cubans also may use foreign currencies. The preferred foreign currency in Cuba is the U.S. dollar, and dollars circulate along with pesos for most transactions in Cuba. Cuban citizens may hold bank deposits in pesos or in dollar-denominated accounts. Some observers have noted the irony of Cubans using U.S. dollars, despite U.S. economic sanctions.

The Cuban Government recently has stepped up efforts to "de-dollarize" the economy. Higher interest is now paid on peso-denominated accounts than for dollar-denominated accounts. In early 2000, fixed term convertible peso certificates of deposit were offered at interest rates comparable to rates for dollar-denominated deposits.

Sources: ECLAC, *Cuba: Evoluciòn Económica durante 1999*; EIU, *Country Profile: Cuba; and* Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*.

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[76] ECLAC, *La Economía Cubana*, p. 289.

[77] USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," pp. 26-28.

[78] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 9.

[79] EIU, *Country Profile: Cuba, 1999-2000*, p. 29.

[80] Ana Julia Jatar, "Cuba: Is American—Sí, A Bright Future," *Across the Board*, July-August 2000, p. 22.

To stem the growth of the black market, possession and use of foreign currency within Cuba was decriminalized in 1993, and shortly afterward the dollar stores were opened to all Cubans.[81] This helped to create an escape valve for inflationary pressure, while facilitating the flow of foreign remittances (discussed below) to support domestic demand.[82] In 1994, the convertible peso was introduced, with a value set at par with the U.S. dollar and with full hard-currency backing. In 1995, the exchange of formerly nonconvertible pesos for foreign currency at a market rate was legalized through official foreign-exchange bureaus operated by the Cuban Government. Cubans were authorized to open bank accounts denominated in foreign currencies in 1995. Cuban officials reportedly envision a unified exchange, but no timetable has been set for this.[83]

Introduction of the convertible peso has been called the most important economic reform in recent years.[84] Peso convertibility has accelerated the expansion of a dual economy—one that uses pesos and one that uses dollars. The traditional, peso-based component of the Cuban economy, including sugar and most agricultural production, education, and health services, remains under central-government planning. The convertible peso is credited with spurring the mid-1990s growth in Cuba's dollar-based economy, including tourism and export-oriented agriculture such as citrus production. The dollar-based economy competes in international markets on the basis of international competitiveness and quality, and was a key element of Cuba's improved economic performance after the mid-1990s.[85]

Many sources have analyzed the impact of "dollarization" of the Cuban economy and the extent to which a dual economy promotes social inequality in that Cubans with access to dollars are better off than those without.[86] Real earnings of most public-sector workers have declined, while workers in high-priority sectors (export-oriented industries, food and energy production, and tourism) receive bonuses or partial payment in dollars.[87] Moreover, widespread use of dollars and other foreign exchange means that Cuban monetary authorities have less ability to control the country's money supply. In part, new taxes and user fees have helped reduce some of this excess liquidity (see the discussion on fiscal management below). In 1999, the Cuban Government announced plans to adopt the euro for official transactions, but this measure has not been implemented as of this writing.

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[81] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 7.

[82] ECLAC, *La Economía Cubana*, p 71.

[83] EIU, *Country Profile: Cuba, 1999-2000*, p. 29.

[84] Roger R. Betancourt, "Cuba's Economic Reforms: Waiting for Fidel on the Eve of the Twenty-First Century," typescript, Department of Economics, University of Maryland, August 1999, p. 7.

[85] ECLAC, *La Economía Cubana*, p. 154.

[86] Philip Peters, *Cubans in Transition: The People of Cuba's New Economy*, Alexis de Tocqueville Institution, March 1999; Julia Sweig, "Hanging On: The Cuban Economy at the End of History," *The Milken Institute Review*, 2nd Quarter 2000, p. 25; ECLAC, *La Economía Cubana*, p. 54; Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 40; and TransAfrica Forum, *Forty Years of Hostility: Consequences of the United States Economic Embargo on Cuba*, 1999, at *http://transafricaforum.org/reports/cuba_0102_0699.shtml*, retrieved Nov. 25, 2000.

[87] ECLAC, *La Economía Cubana*, p. 54.

Legalization of limited forms of self-employment

In 1989, the Cuban economy was by all reports at full employment.[88] The economic crisis caused by the loss of Soviet economic assistance led to a rise in unemployment. Although the public sector became the largest employer in post-1959 Cuba, a limited amount of self-employment remained,[89] with reportedly 29,000 registered self-employed workers in Cuba before 1990. In September 1993, the Cuban Government legalized self-employment in a wide range of trade, craft, and services sectors. By 1998, there were reportedly more than 160,000 self-employed Cubans.[90]

Expansion of the scope of self-employment opportunities was an important component of Cuba's efforts to reduce the size of the public sector, cut government spending, and reduce the Government's role in meeting domestic demand for certain goods and services. However, the Cuban Government "was not—and still isn't—comfortable with a flourishing capitalist enclave of Cubans," despite the fact that it "relies on self-employment for unemployment relief, tax revenue, and the incorporation of more Cubans into the dollar economy."[91] According to one report, "the number of licensed entrepreneurs in Cuba has declined about 20 percent from its peak in 1996, coinciding with the imposition of income taxes and enforcement of regulations."[92] Because self-employment is closely associated with Cuba's post-Soviet austerity measures, "[m]any Cubans have interpreted this to mean that self-employment is temporary."[93]

Improved fiscal management

A new central bank, the Banco Central de Cuba, was established in 1997 to operate with modern central banking functions. Cuba implemented several steps to modernize the banking system—the domestic banking system was computerized, a clearing system established, and automatic teller machines (ATMs) installed throughout the country.[94]

Part of Cuba's post-Soviet austerity measures included sharp cuts in government spending and improved fiscal management. The sharpest cuts occurred in government-owned enterprises, defense spending, and government investment. Cuba is phasing in the use of standard international accounting practices in its budgeting process. Government-owned enterprises were reorganized as autonomous units operating their own accounts instead of simply transferring earnings to and drawing

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[88] Ibid., p. 53.

[89] *The Cuban Way*, p. 70.

[90] Ibid., and Philip Peters, *Cuba's New Entrepreneurs: Five Years of Small-Scale Capitalism*, Alexis de Tocqueville Institution, August 1998, p. 2.

[91] Ana Julia Jatar, "Cuba: Is American—Sí, A Bright Future," *Across the Board*, July-August 2000, p. 71.

[92] Philip Peters, *Cubans in Transition: The People of Cuba's New Economy*, Alexis de Tocqueville Institution, March 1999, p. 3.

[93] Ana Julia Jatar, "Cuba: Is American—Sí, A Bright Future," *Across the Board*, July-August 2000, p. 70

[94] Central Bank of Cuba, "Cuban Banking and Financial System," briefing document, April 1999.

centrally planned resources from the Government.[95] Decree Law 92 of 1999 aims to increase transparency in central government planning and the management of public finances,[96] but only limited progress reportedly has been achieved to date.[97] Reported defense spending was cut by one-third between 1990 and 1998. Cuba increasingly has turned to foreign investors (see the discussion of foreign investment below) to rebuild the economic infrastructure.[98]

Direct taxation, largely abolished since 1967, was reintroduced in 1994 to help reduce the fiscal deficit caused by the loss of Soviet economic assistance.[99] The Tax System Law (Law Number 73) of 1994 set out the general taxation system. Beginning in 1996, self-employed individuals were required to pay income tax; the Cuban Government stepped up enforcement of tax regulations in 1997.[100] New taxes, user charges, and price increases on nonessential goods improved the Government's capital account and helped reduce excess liquidity in the economy.[101] Among those new taxes and new user charges, the Cuban Government imposed, beginning in 1994, nominal charges for certain previously free government-provided services such as school meals and vitamin supplements,[102] as well as levies on previously untaxed consumer goods such as tobacco and alcoholic beverages. Real estate rental property was legalized in 1997, creating a new source of tax revenue.[103] Nevertheless, despite the crisis caused by the loss of Soviet economic assistance, Cuba did not reduce the high priority assigned to basic social spending. Health spending remained almost constant in peso terms, education spending declined marginally, and social security payments increased between 1989 and 1998.[104]

Foreign trade and aid

The dissolution of the Soviet bloc forced Cuba to find new export markets. Some 80 percent of total Cuban trade in 1989 was with socialist countries; Cuba's trade with those formerly socialist countries declined to 12 percent by 1994.[105] The Cuban Government took steps to better integrate Cuba into the global economy through increased participation in regional trade arrangements. Cuba's participation is restricted to trade and economic organizations not subject to a U.S. veto. Thus, Cuba is excluded from the OAS, the Inter-American Development Bank, and the negotiations on the Free Trade Area of the Americas. However, Cuba was a founding member of the Association of Caribbean States, and joined the Latin American Integration

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[95] ECLAC, *La Economía Cubana*, p. 73.
[96] ECLAC, *La Evolución Económica durante 1999*, pp. 4-5.
[97] U.S.-Cuban Trade and Economic Council, Inc., "Attorney General Reports 5,800 Cases of Corruption in 2000," *Economic Eye on Cuba*, Jan. 1-7, 2001, p. 5.
[98] EIU, *Country Profile: Cuba, 1999-2000*, pp. 16-17.
[99] ECLAC, *La Economía Cubana*, p. 69; and EIU, *Country Profile: Cuba, 1999-2000*, p. 29.
[100] Philip Peters, *Cuba's New Entrepreneurs: Five Years of Small-Scale Capitalism*, Alexis de Tocqueville Institution, August 1998, p. 4.
[101] EIU, *Country Profile: Cuba, 1999-2000*, pp. 16-17.
[102] Ian Jeffries, *A Guide to Economies in Transition*, (London: Routledge, 1996).
[103] ECLAC, *La Economía Cubana*, p. 77.
[104] Ibid., table A.7; and EIU, *Country Profile: Cuba, 1999-2000*, pp. 16-17.
[105] ECLAC, *La Economía Cubana*, p. 80.

Association (LAIA) in 1999.[106] Cuba was granted observer status at meetings between the European Union (EU) and the African, Caribbean, and Pacific (ACP) countries pursuant to negotiations for a new preferential trade arrangement (the Cotonou Convention) to replace the Lomé Convention.[107] Cuba has sought increased participation in Latin American regional trading groups such as the Caribbean Community (CARICOM) and the Southern Common Market (Mercosur), which includes Argentina, Brazil, Paraguay, and Uruguay.[108]

Cuban tariffs are subject to WTO disciplines, which distinguish between most-favored-nation (MFN) rates and other tariff rates. Cuban MFN tariff rates are applied to imports from its largest trading partners, including Canada and Japan. Following tariff reductions in 1997, Cuba's simple average general tariff was 16.9 percent ad valorem (down from 51.5 percent in 1990) with a maximum rate of 40 percent, versus an average MFN tariff of 10.7 percent (down from 17 percent in 1990) with a maximum rate of 30 percent. As a member of LAIA, Cuba affords preferential tariff rates (below MFN rates) to certain less-developed Latin American members. Cuba also affords preferential tariff rates to certain developing countries pursuant to the Global System of Trade Preferences (GSTP).[109] Cuba benefits from reduced duties under the Generalized System of Preferences from the EU, Australia, Bulgaria, Canada, the Czech Republic, Hungary, Japan, New Zealand, Norway, Poland, and Switzerland.[110]

A 1992 Constitutional amendment ended the Cuban Government's monopoly on imports, and now hundreds of government-owned but decentralized firms (with the designation "S.A." after their names) are licensed to import. Exports traditionally were carried out exclusively by government-owned enterprises, as part of the Government's efforts to obtain hard-currency reserves, especially in the case of agriculture.[111] However, foreign private interests are gaining an increasing role in this activity. Export promotion is the goal of Decree Laws No. 77 and 165,[112] which allow joint venture arrangements between foreign firms and Cuban government-owned

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[106] LAIA (also known as the Association for Latin American Integration, or ALADI) was established in 1980 to promote regional economic cooperation. The 11 original LAIA members were: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. Cuba became the 12th LAIA member in November 1998. ALADI website, at *http://www.aladi.org*, retrieved on Jan. 8, 2001.

[107] Cuba subsequently withdrew its application to join the new partnership between the EU and the ACP states because of a dispute with the EU over requirements on human rights and the rule of law. Although Cuba's dispute with the EU remains unresolved as of this writing, Cuba was admitted as a full ACP member in December 2000. U.S. Department of State telegram, "Cuba Withdraws Bid to Join EU-ACP Pact," message reference No. 2571, prepared by U.S. Mission to the European Union, Brussels, April 28, 2000, and "ACP Group Admits Cuba as Member," Reuters, Dec. 14, 2000.

[108] "Cuba-CARICOM Trade Agreement Coming," Caribbean News Agency, June 8, 2000; and "Cuba Hopes to Sign Treaty with Mercosur," *Wall Street Journal*, Dec. 29, 2000, p. A6.

[109] The GSTP was established by developing countries to provide preferential trading between and among participating countries. Group of 77 website, at *http://www.g77.org/index.html*, retrieved Jan. 5, 2001.

[110] Government of Cuba, Center for Export Promotion, at *http://www.infocex.cu/cepec/ing/fr_info.htm* retrieved Jan. 2, 2001.

[111] William A. Messina, Executive Coordinator, International Agricultural Trade and Development Center, University of Florida; testimony before the USITC, Sept. 12, 2000, transcript, p. 519.

[112] These Cuban laws are reproduced in ECLAC, *La Economía Cubana*, pp. 418 and 450.

enterprises, industrial parks, and free trade zones (FTZs), discussed in more detail below.

Figures 3-6 and 3-7 show Cuba's leading trade partners in 1998. Russia remained Cuba's largest single export destination, receiving 25 percent of Cuba's export value that year; however, since 1990 former Soviet bloc countries accounted for a declining share of Cuba's total trade.[113] Sugar and sugar products (molasses and honey) comprised over 95 percent of Cuban exports to Russia. Europe was Cuba's top export market in 1998; the Netherlands, Spain, and France together accounted for 26 percent of Cuba exports. Canada was Cuba's third leading export market after Russia and the Netherlands. Cuba's main export to both the Netherlands and Canada was nickel, while exports to Spain and France were mainly food products.

Nearly one-third of Cuba's 1998 imports originated in three European countries—Spain, France, and Italy. Cuba imported a wide range of products from Spain, while over one-half of imports from France were food products (primarily wheat). Venezuela was Cuba's second leading import provider following Spain; petroleum products made up more than 90 percent of Cuba's imports from Venezuela. China and Russia were Cuba's 7th and 9th leading sources of imports, respectively, in 1998. Cuba's top export commodities in 1998 were sugar, nickel, tobacco, shellfish, medical products, citrus, and coffee (figure 3-8), while top imports in 1998 were petroleum, food, machinery, and chemicals (figure 3-9). Cuba received bilateral and multilateral aid during the 1990s; however, this economic aid was very small when compared with Soviet economic assistance. In 1997, Cuba received $32 million in official bilateral development assistance, mainly from Spain, France, Canada, Italy, and Germany, and $35 million of official multilateral development assistance mainly from United Nations agencies. The U.S. Government reported that since 1992, the United States has been the largest donor of humanitarian assistance to Cuba, and has licensed more than $227 million in humanitarian donations of medicines and medical equipment for Cuba.[114]

Foreign investment

The need for external financing to modernize the domestic economy and to help offset the withdrawal of Soviet economic assistance was a key reason behind the Cuban Government's decision to liberalize its foreign investment regime.[115] The Cuban constitution was amended in 1992 to provide, among other things, for the sale of government-owned property to foreign investors and to recognize property ownership rights of these new forms of property ownership.[116]

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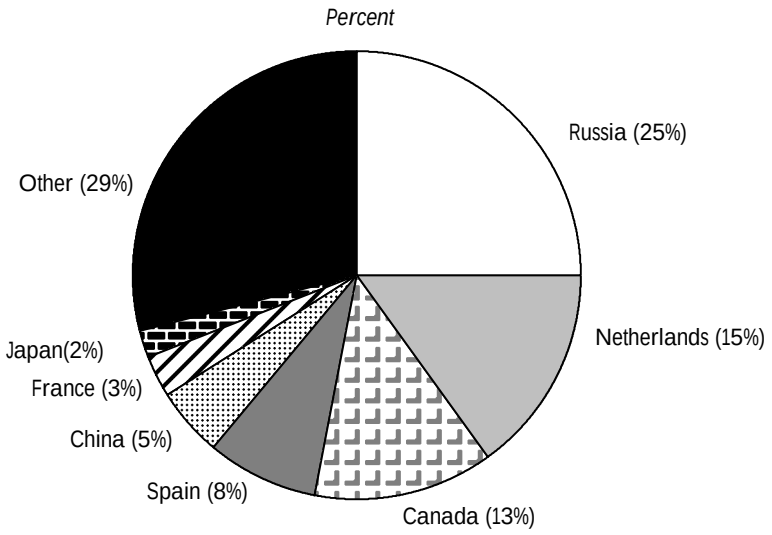
[113] Central Intelligence Agency, *Handbook of Trade Statistics, 1999*, found at Internet address http://www.odci.gov, retrieved May 25, 2000.

[114] EIU, *Country Profile: Cuba, 1999-2000*, p. 28, and U.S. Department of State, "Cuba: Humanitarian Assistance," at *http://www.state.gov/www/regions/wha/cuba/humani_aid.html*, retrieved Nov. 25, 2000.

[115] ECLAC, *La Economía Cubana*, p. 14.

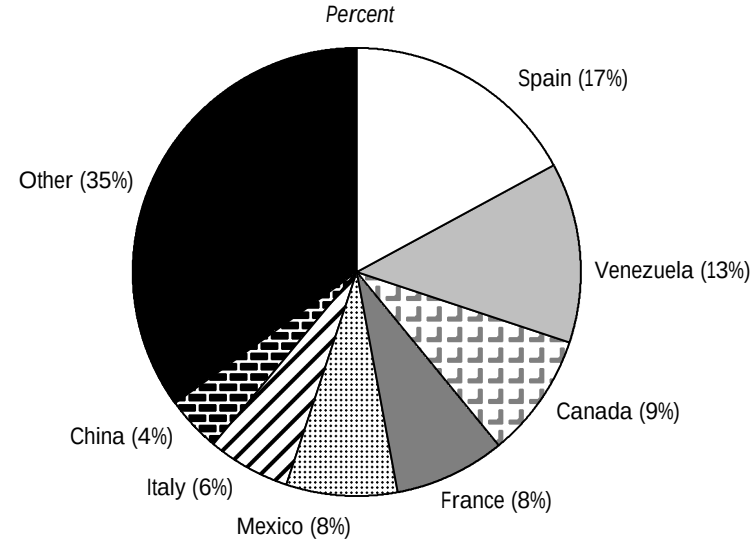
[116] Government of Cuba, National Assembly, "Foreign Investment Law," reproduced in ECLAC, *La Economía Cubana*, p. 417.

Figure 3-6
Cuba: Exports to leading partners, by share, 1998



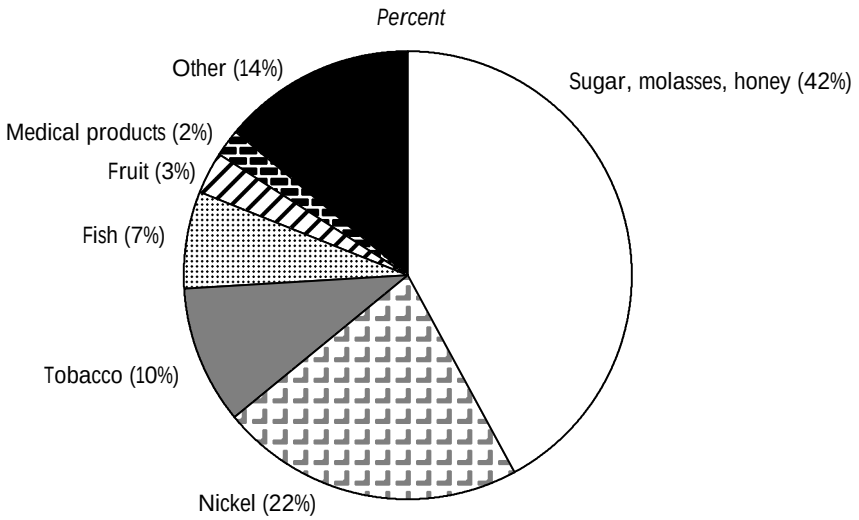
Source: CIA, *Handbook of Trade Statistics*, 1999.

Figure 3-7
Cuba: Imports from leading partners, by share, 1998



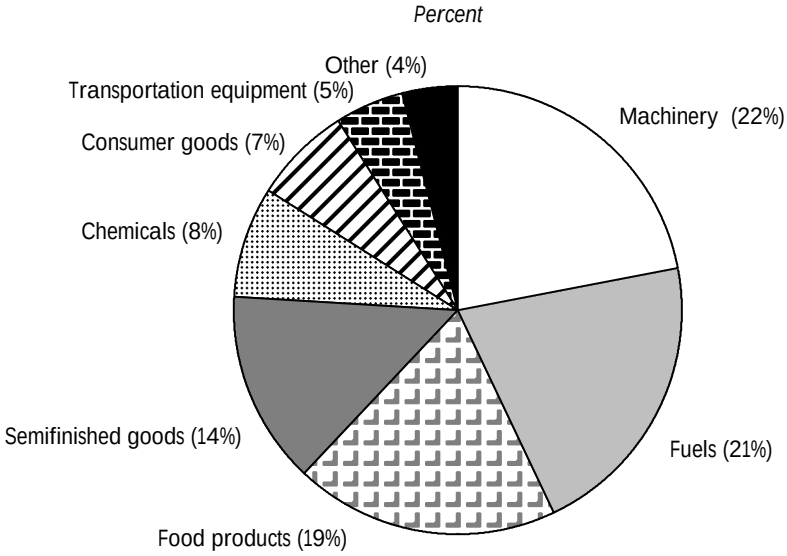
Source: CIA, *Handbook of Trade Statistics*, 1999.

Figure 3-8
Cuba: Exports of leading products, by share, 1998



Source: CIA, *Handbook of Trade Statistics*, 1999.

Figure 3-9
Cuba: Imports from leading products, by share, 1998



Source: CIA, *Handbook of Trade Statistics*, 1999.

New foreign investment regulations were provided by Decree Law 77 of 1995, which established certain guarantees against expropriation of assets and allowed, among other things, foreign firms to transfer profits abroad. Investment was allowed in all sectors of the Cuban economy except education, health care, and defense.[117] Decree Law 77 was a selective opening to foreign investment—Cuban Government authorities continue to select investment projects and foreign partners. According to Cuban authorities, projects must meet one or more of the following criteria:

- provide capital for the Cuban economy;
- transfer technology to Cuba; or
- bring new markets for Cuban goods and services or contribute to development of the Cuban tourism sector.[118]

Decree Law 77 also allows foreign partners to sell their shares of the investment, but only to purchasers approved by the Cuban partner. Other provisions of Decree Law 77, including more detailed discussions of joint ventures and labor reforms, are discussed in more detail below.

In addition to the provisions of Decree Law 77, Decree Law 80 of 1996 provided added protection for foreign investors. Foreign investors are permitted to negotiate additional investment protections or provisions in bilateral accords with the Cuban Government, including protection against unreasonable expropriation.[119] Cuba has signed such bilateral protection agreements with 45 countries as of early 2000, and has negotiated tax agreements with a number of its current trade and investment partners to avoid double taxation.[120]

Data on foreign investment in Cuba is difficult to obtain. The Cuban Government provides only limited capital accounts data. Moreover, U.S. economic sanctions and, in particular, the threat of U.S. legal action pursuant to the 1996 Helms-Burton Act (Cuban Liberty and Democratic Solidarity Act)[121] may encourage foreign investors not to report all of their financial activities in Cuba.[122] According to one witness at the Commission's hearing for this investigation, "[m]any foreign executives are extremely wary of discussing their business [in Cuba], especially with an American" in light of the extraterritorial reach of U.S. economic sanctions with respect to Cuba.[123] The Cuban Government reportedly has implemented a number of defensive administrative measures in response to U.S. sanctions, and reportedly has ceased publishing lists of approved foreign investment projects to protect investors.[124]

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[117] Cuban officials explained that, because Cuba provides universal education and health care, foreign investment in those sectors is not desired. USITC staff interview with Marta Lomas, Minister of Foreign Investment and Economic Cooperation, Havana, July 19, 2000.

[118] Ibid.

[119] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 32.

[120] ECLAC, *Cuba: Evolución Económicia durante 1999*, p. 4; and Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 33.

[121] The Helms-Burton Act is discussed in more detail in chapter 2.

[122] EIU, *Country Profile: Cuba, 1999-2000*, p. 28.

[123] Philip Peters, *Foreign Investment in Cuba*, Alexis de Tocqueville Institution, March 1999, p. 2.

[124] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 36.

Recent press reports have described a $500 million Franco-Spanish joint venture purchase of one-half of the Cuban tobacco company Habanos, and a $150 million investment in the Cuban cement industry by a Spanish company.[125] Cumulative foreign direct investment (FDI) in Cuba reportedly totaled approximately $2 billion during 1990-99, 60 percent of which was from Canada and Mexico.[126] These FDI inflows are insignificant compared with the massive subsidies Cuba enjoyed from the Soviet bloc countries.

Despite the provisions of Decree Law 77, some foreign investors complain that Cuba's investment regime remains restrictive. Foreign investors complain that Cuba's investment approval process is time consuming and involves numerous bureaucratic hurdles.[127] One recent report cites Cuba's Minister of Foreign Investment as stating that Cuba is "being more selective [in choosing foreign investors] because the economic conditions of the country have improved."[128] Dispute arbitration is another source of complaints. Under Cuban law, disputes are supposed to be resolved by Cuba's Foreign Trade Arbitration Court, but that process reportedly has fallen into disuse because of concerns about the independence of the arbitrators. Joint venture agreements with Cuba can specify dispute resolution procedures of the International Chamber of Commerce (which Cuba joined in 1998) or other mechanisms under the United Nations Arbitration Rules.[129]

Joint venture operations. Decree Law 77 provides for three different forms of investment, all of which involve some form of partnership or cooperation with a Cuban government entity—a joint venture, which is a free-standing corporation with share capital; an international economic association contract, which provides for joint activities without the creation of a separate legal entity; and a corporation with totally foreign capital, which operates in partnership with the Cuban Government using investment capital provided solely by the foreign company.[130] According to a Canadian business guide, "virtually every aspect of joint ventures is negotiable."[131] While Decree Law 77 permits 100-percent wholly foreign-owned investments, only one such investment has occurred to date—a project with a Panamanian-based company in conjunction with German and Israeli equipment producers to build a $15 million thermal power plant on Cuba's Isle of Youth—and that project is to revert to the Cuban Government within 4 and one-half years under the country's

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[125] Pascal Fletcher, "Havana Seeks to Soothe Foreign Investors Over Property Measure," *Financial Times*, July 18, 2000.

[126] That estimate is in line with a recent press report of $4.3 billion of foreign investment in Cuba through 1999, more than half of which had been delivered. Ibid.

[127] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 25.

[128] Marta Lomas, Minister of Foreign Investment and Economic Cooperation, quoted in Pascal Fletcher, "Havana Seeks to Soothe Foreign Investors Over Property Measure," *Financial Times*, July 18, 2000.

[129] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 33.

[130] Ibid., p. 25.

[131] Ibid., p. 45

"buy-own-operate-transfer" joint venture turnkey program.[132] With the assistance of joint venture partners, Cuba is investing heavily in tourism, its largest foreign-exchange-earning industry. Since 1996, Cuba has pursued potentially lucrative off-shore oil exploration in the Cuban zone of the Gulf of Mexico with Brazilian, Canadian, French, Spanish, and Swedish investors; cumulative foreign investment in Cuba's oil sector reportedly totals $650 million.[133]

Free trade zones (FTZs). Decree Law 165 of 1996 authorized the establishment of industrial parks and FTZs. Cuba's first FTZs were opened in 1997; three zones are currently open, with 294 companies operating in them.[134] Operations located in FTZs may be 100-percent foreign owned (eliminating the negotiations needed to form a joint venture, as described above). Despite anecdotal reports of complaints about the bureaucratic process of applying for licenses to operate in FTZs, a Canadian business guide describes Cuban FTZs as "among the most liberal in Latin America."[135]

Operations in FTZs receive certain tariff and tax concessions as well as more favorable investment conditions. No duties are paid on imports into or exports out of FTZs. Industrial plants in FTZs are exempt from income and labor taxes for 12 years, followed by a 50-percent exemption for another 5 years; service and commercial operations are exempt from income and labor taxes for 3 years and 5 years, respectively. Although Cuban FTZs were initially intended to attract export-oriented manufacturing, up to 25 percent of output produced in FTZs may be sold domestically with prior approval of the Cuban Government.[136]

Labor policies. Decree Law 77 prohibits foreign-owned businesses in Cuba from directly hiring or paying Cuban workers. Instead, they generally must hire Cuban labor and pay salaries through a Cuban government employment agency (the employment agency screens prospective Cuban workers for job qualifications and, reportedly, for political views[137]), although exceptions exist with respect to hiring certain technical and managerial personnel. Foreign investors are charged for the labor by the Cuban Government, and salaries are paid to the Cuban employment agency that, in turn, pays the workers.[138] This arrangement reportedly adds to Cuban labor costs and makes Cuban labor relatively more expensive than labor in neighboring Caribbean and Central American countries.[139] Foreign investors also can negotiate in their joint venture agreement the authorization to pay hard-currency incentives to local workers in addition to the peso salaries workers receive from the

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[132] USITC staff interview with Marta Lomas, Minister of Foreign Investment and Economic Cooperation, Havana, July 19, 2000; and "ECONOMY-CUBA: First 100 Percent Foreign Investment," Inter Press Service, World News, at *http://www.oneworld.org/ips2/feb99/14_59_046.html*, retrieved Aug. 2, 2000.

[133] ECLAC, *Cuba: Evolución Económicia durante 1999*, p. 7.

[134] Ibid., p. 4.

[135] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 45

[136] Ibid., p. 25; and *Exporter à Cuba: l'Essentiel d'un Marché*, p. 126.

[137] USITC staff interviews, Havana, July 17-23, 2000.

[138] Anthony C.E. Quainton, "Toward Best Business Practices for Foreign Investors in Cuba," 10th Annual Meeting of the ASCE, Miami, FL, August 2000.

[139] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 45.

government employment agency.[140] Companies in FTZs are authorized to provide incentives in the form of food, clothing, transportation, as well as up to 10 percent of monetary compensation in hard currency.[141]

Capital flows

Foreign exchange. Cuba's ability to import is constrained by a shortage of foreign exchange. The U.S. Department of Agriculture estimates that the lack of foreign exchange to purchase needed production inputs—fertilizer, oil, pesticides, parts and equipment formerly provided on highly subsidized terms by the Soviet bloc—from any source is the most pressing problem facing Cuban agriculture.[142] This problem also has implications for Cuba's potential ability to purchase U.S. products if U.S. economic sanctions were removed. According to one witness at the Commission's hearing, "[i]n order to trade with the United States, Castro will need to borrow from American and other financial institutions. Unless these loans are conditions of substantial structural changes, they will only serve to subsidize an archaic, inefficient, repressive economic system."[143]

Tourism.[144] Since 1994, tourism has replaced sugar exports as Cuba's leading source of hard-currency earnings. Gross revenue from tourism in 1998 was $1.8 billion, versus $600 million from sugar.[145] "Cuba authorities see [tourism] . . . as the principal means of reducing the nation's excessive dependence on the sugar industry."[146] Because of the importance of tourism to the Cuban economy, Cuban authorities reportedly also view the sector as important to stimulating economic activity in other sectors such as food and beverage production, construction, telecommunications, and transportation.[147] However, Cuba must import a significant amount of food and other goods to meet the demand of foreign tourists, at least in the near term. Tourism industry sources reported that limited entertainment opportunities contribute to short visitor stays and relatively low spending per tourist.[148] While most tourists visiting Cuba come from Canada, Italy, Spain, and Germany, a significant number of U.S.

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[140] Philip Peters, "Hard Currency Payments to Workers Boost Buying Power for Many Cubans," *CubaNews*, May 1999, p. 9, and Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 32.

[141] Government of Canada, ibid., p. 33.

[142] USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," p. 28.

[143] Lazaro Alvarez, Committee Chairman, United Cuban Organizations, testimony before the USITC, Sept. 19-20, 2000, transcript, p. 250.

[144] The tourism sector is discussed in more detail in chapter 4.

[145] EIU, *Country Profile: Cuba, 1999-2000*, pp. 21 and 24.

[146] Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 11.

[147] ECLAC, *La Economía Cubana*, p. 167.

[148] Michael A. Stein and Lani Kane-Hanan, "Cuba—Tourism as a Replacement Industry, *Arthur Anderson Hospitality and Leisure Report*, Spring/Summer 1996, at *http://www.hotel-online.com/Neo/Trends/Andersen/Cuba_TourismIndustry_Spring1996.html*, retrieved Nov. 23, 2000.

tourists—200,000 in 1999 alone, according to one estimate[149]—visit Cuba every year (reportedly, many are technically in violation of U.S. economic sanctions prohibiting spending money in Cuba for unlicensed purposes).

Remittances.[150] Cubans who fled the island after the Communist revolution relocated primarily to the United States, Spain, and Venezuela. Family remittances became an important source of supplemental income for many Cubans during the country's economic downturn and recovery from the loss of Soviet economic assistance —and the inflow of remittances at that time significantly increased.[151] According to one source, "in one particular parish of Cuba with about 9,000 people, just about all of them . . . found themselves dependent on remittances from the United States."[152] The Cuban Government legalized dollar-denominated remittances under its 1994 monetary reform program.[153] According to one source, legalization of the use of foreign currency encouraged more family remittances, and "the high prices at the dollar retail stores acted as a hidden sales tax on those remittances"—effectively allowing the Cuban Government to obtain access to that money.[154]

Estimates of the total value of remittances to Cuba vary widely, ranging from $300 million to $800 million annually.[155] One source noted that, even at the upper end of the range of estimates, family remittances do not begin to replace the lost Soviet economic assistance.[156] Some sources attributed a portion of Cuba's capital inflows to drug money laundering rather than money sent to support relatives in Cuba,[157] but another rebutted that evidence of money laundering in remittance data is limited.[158]

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[149] Julia Sweig, "Hanging On: The Cuban Economy at the End of History," *The Milken Institute Review*, 2nd Quarter 2000, p. 27. The Canadian Government reports that in excess of 215,000 Canadians visited Cuba in 1998, but that U.S. tourists "are quite visible among visitors arriving in Cuba on flights from Montreal, Toronto, Kingston, Nassau, and Mexico City." Government of Canada, Ministry of Foreign Affairs, *Cuba: A Guide for Canadian Businesses*, p. 12.

[150] Additional discussion of remittances is provided in chapter 2.

[151] ECLAC, *La Economía Cubana*, p. 153.

[152] Brian Latell, Professor, Georgetown University, School of Foreign Service, testimony before the USITC, Sept. 19, 2000, transcript, p. 85.

[153] ECLAC, *La Economía Cubana*, p. 153.

[154] Ana Julia Jatar, "Cuba: Is American—Sí, A Bright Future," *Across the Board*, July-August 2000, p. 68.

[155] John S. Kavulich, President, U.S.-Cuba Trade and Economic Council, Inc., transcript, p. 197 (estimate of $275-315 million); and Thomas E. Cox, Director, U.S.-Cuba Business Council, testimony before the USITC, Sept. 19, 2000, transcript, p. 197 (estimate of $300-400 million); and Nicholás Gutiérez, Secretary and General Counsel, National Association of Sugar Mill Owners of Cuba, testimony before the USITC, Sept. 20, 2000, transcript, p. 385 (estimate of $800 million); and ECLAC, *La Economía Cubana*, p. 172 (estimate of $800 million in 1996).

[156] Carmelo Mesa-Lago, "Assessing Economic and Social Performance in the Cuban Transition of the 1990s," *World Development*, 1998, table 5, vol. 26, No. 5, pp. 857-876.

[157] "[M]uch of what the Cuban government calls remittances is actually drug money laundering." Otto J. Reich, President, RMA International, Inc., testimony before the USITC, Sept. 19, 2000. Another source links the Cuban Government estimate of family remittances of $800 million to drug money laundering activities reflected in the Cuban balance of payments statistics. Ernesto F. Betancourt, "Cuba's Balance of Payments Gap, the Remittances Scam, Drug Trafficking and Money Laundering," 10th Annual Meeting of the ASCE, Miami, FL, August 2000. A criticism of that analysis is provided by Philip Peters, Vice President, Lexington Institute, U.S.-Trade and Economic Council, Inc., testimony before the USITC, Sept. 19, 2000, p. 207.

[158] Philip Peters, ibid., transcript, pp. 207-208.

Foreign debt

Cuba stopped payment on all its foreign commercial and bilateral official debt with nonsocialist countries in 1986. Because U.S. financial institutions were prohibited from financial dealings with Cuba, there was no U.S. exposure to Cuba's foreign debt moratorium. As a result of its debt moratorium, Cuba became ineligible for long-term financing from commercial banks, and has had to resort to high-interest short-term loans[159] or barter arrangements (70 percent of French wheat and flour sales to Cuba are accomplished through barter arrangements[160]) to finance its trade. In 1995, Cuba restarted informal contacts with the Paris Club of Creditor Nations for possible rescheduling agreements of its $12 billion foreign debt. Cuba has negotiated rescheduling agreements with a few official and commercial creditors, including a 1998 rescheduling with Japanese creditors for debt of $769 million.[161]

Cuba also owes in excess of $20 billion (as of 1990) to former CMEA members. Russia, which has assumed the debt claim of the former Soviet Union, became a member of the Paris Club in 1998, and reportedly seeks to have debt owed it by Cuba to be included in any future Paris Club debt restructuring agreement.[162]

Economic Response to the Reforms

The Cuban economy stabilized and economic growth resumed by the mid-1990s, posting 6.2 percent real GDP growth in 1999 (table 3-1). Cuba's fiscal deficit declined from 30.4 percent of GDP in 1993 to 2.2 percent of GDP in 1998 and 1999. The official unemployment rate also declined from nearly 8 percent in 1995 to 6 percent in 1999. Exports increased from $2 billion in 1993 to $4.5 billion in 1999, and imports grew from $2.3 billion to $5 billion during the same period.[163] Trade policies focused on improving productivity in traditional exports for which Cuba had comparative advantage (sugar, nickel, and tobacco), while also improving earnings in sectors that had been neglected, such as tourism. With the help of foreign investment, tourism has emerged as Cuba's fastest-growing sector.[164]

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[159] ECLAC, *La Economía Cubana*, p. 156, and Julia Sweig, "Hanging On: The Cuban Economy at the End of History," *The Milken Institute Review*, Second Quarter 2000, p. 21.

[160] U.S. Department of State telegram, "French Trade with Cuba," message reference No. 8848, prepared by U.S. Embassy Paris, Aug. 9, 2000.

[161] EIU, *Country Profile: Cuba, 1999-2000*, p. 28.

[162] U.S.-Cuba Trade and Economic Council, Inc., "Cuba Postpones Debt Repayment Discussions with Paris Club of Creditor Nations," *Economic Eye on Cuba*, Jan. 22-28, 2001, p. 5.

[163] ECLAC, Cuba: *Evolución Económicia durante 1999*, table 1, p. 13.

[164] ECLAC, *La Economía Cubana*, p. 13.

Table 3-1
Cuba: Macroeconomic indicators, 1989-99

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
GDP growth (percent)[1]	1.5	-2.9	-9.5	-9.9	-13.6	0.7	2.5	7.8	2.5	1.2	6.2
Inflation (percent)[1]	NA	NA	NA	NA	NA	NA	-9.8	-7.3	-1.1	2.9	-2.9
Trade balance (billion dollars)[1]	-2.6	-2.1	-1.1	-0.2	-0.4	-0.6	-1.4	-1.6	-2.3	-2.8	-2.8
Current account (percent of GDP)[2]	-14.4	-12.2	-8.3	-2.6	-2.3	0.5	-2.4	0	-2.2	-1.9	NA
Foreign debt (billion dollars)[2]	NA	NA	NA	NA	4	10.2	11.7	11.7	11.4	12.5	11.1[1]
of which, short term (billion dollars)[2]	NA	NA	NA	NA	4	7.4	8.6	7.4	7.0	7.7	NA
total debt (percent of GDP)	NA	NA	NA	NA	4	63.3	68.7	61.9	57.6	61.4	NA
Debt service ratio (percent)[3]	NA	NA	NA	NA	4	21.2	24.1	21.3	20.5	22.6	NA
Tourist arrivals (thousands of visitors)[1]	NA	340	424	461	546	619	745	1,004	1,170	1,416	1,603[1]
Revenue (million dollars)[1]	NA	243	387	567	720	850	1,100	1,350	1,546	1,816	NA
Exchange rate (pesos per U.S. dollar)											
Convertible peso (official rate)[2]	1	1	1	1	1	1	1	1	1	1	1
Domestic peso (floating rate)[2]	45	68	120	150	137	95	32.1	19.2	22.8	22.3	20[1]

[1] Central Bank of Cuba, *Economic Report, 1999*, April 2000.

[2] Economist Intelligence Unit (EIU), *Cuba: Country Profile, 1999-2000.*

[3] Debt service as a percent of earnings from exports of goods and services. EIU, *Cuba, Country Profile, 1999-2000.*

Note.—Data for 1989-1993 obtained from United Nations Economic Commission for Latin America and the Caribbean, *La Economía Cubana: Reformas estructurales y desempeño económico en los noventa* (Mexico: United Nations, 1997), various tables.

Impact during 1960-89

Soviet economic assistance allowed Cuba to experience nearly uninterrupted economic growth between 1960 and 1989, largely unaffected by the adversities of global economic cycles.[165] ECLAC reported that the reduction of the U.S. sugar quota in July 1960 "had no very serious effects on the volume of [Cuban] exports" because Cuba had already shipped nearly three-fourths of the quota by that time and because Cuba was able to sell to other countries the quantity of sugar that the United States did not purchase, and was able to find other sugar markets in subsequent years.[166] In the early 1960s, Cuba replaced broken trade and investment links with the United States with close economic and political ties to the Soviet bloc countries and China. Cuba's economy quickly grew dependent upon massive economic assistance from Soviet bloc countries. Socioeconomic indicators, such as the rate of infant mortality, generally continued to improve through the 1980s due in large part to the extensive Soviet economic assistance.[167]

As discussed above, it is difficult to distinguish between the economic effects of U.S. unilateral economic sanctions on the Cuban economy and the effects of other significant and unrelated economic factors, such as multilateral economic sanctions by the OAS and the transformation of Cuba's domestic economic organization and economic system to that of a nonmarket, centrally planned system beginning in the early 1960s. ECLAC reported that Cuba faced certain costs in transforming its domestic economic system during the 1960s. Some of those costs, which were independent of U.S. economic sanctions, included:

- shortages of administrative, technical, and entrepreneurial personnel because many skilled workers emigrated in response to the Cuban revolution;
- problems adjusting to new patterns of agricultural and industrial organization and central planning, "partly to their own defective and inchoate character . . . . [N]ew patterns for the organization of production and marketing were being sought and tried out, but only tentatively, and frequent changes were being introduced"[168]; and

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[165] Ibid., pp. 11 and 62. This point was made by several individuals who testified at the Commission's hearing for this investigation, including Lazaro Alvarez, Committee Chairman, United Cuban Organizations, testimony before the USITC, Sept. 19, 2000, transcript, p. 246, and Nicholás Gutiérrez, Secretary and General Counsel, National Association of Sugar Mill Owners of Cuba, testimony before the USITC, Sept. 19, 2000, transcript, p. 385. See also USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," p. 26.

[166] One source reports that the reduction of the U.S. quota signified a "partial" loss for Cuba because world sugar prices typically were lower than prices quoted under the U.S. preferential quota; "[t]he amount of the loss cannot be estimated, however, owing to the complete absence of data on the value of exports in 1960 and on the effective prices obtained for the sugar sold to the USSR and other countries." ECLAC, *Economic Survey of Latin America, 1960*, p. 92.

[167] ECLAC, *La Economía Cubana*, pp. 36-37 and 362-364.

[168] ECLAC, *Economic Survey of Latin America, 1963*, p. 263.

- declining international reserves, which limited Cuba's ability to purchase imports, combined with an "increase in public expenditure in order to finance investment programs and the expansion of social services and defense activities." The result was an increase in the government deficit that was controlled through higher prices for consumer goods and rationing.[169]

Some sources reported that U.S. economic sanctions made it difficult for Cuba to maintain its stock of capital equipment, most of which had been acquired from the United States. Because spare parts and service for this equipment were no longer available,[170] there were "frequent work stoppages which occurred in the production sectors for want of raw materials and spare parts and in the fact that a large proportion of the transport vehicles and farm traction equipment was practically unusable because of the difficulty of acquiring the necessary accessories and spare parts."[171] Consequently, Cuba was forced to purchase less efficient equipment that was higher in fuel consumption from Soviet bloc countries.[172] U.S. economic sanctions also increased Cuba's shipping and transportation costs—forcing Cuba to spend more for commodities that easily could have been purchased from the United States at lower cost. Many other sources also reported that U.S. sanctions forced Cuba to rely on distant suppliers and markets in Europe and Asia.[173]

To some degree, U.S. economic sanctions may have prompted the Cuban Government to seek greater economic self-reliance in some sectors. In the 1960s, Cuba accelerated investment in the development of metallurgical industries to ultimately supply spare parts and other inputs needed for industry, agriculture, and transportation.[174] Cuba engaged in advanced medical and biomedical research in the 1970s and 1980s, conducting cooperative health research with countries such as France and India and establishing pharmaceutical production capabilities with funding from the United Nations Industrial Development Organization.[175]

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[169] Ibid., p. 264.

[170] Fernando Remirez de Estenoz, Principal Officer, Cuban Interests Section, Washington, DC, and Deputy Minister of Foreign Affairs of the Republic of Cuba, testimony before the USITC, Sept. 19, 2000, transcript, p. 53, and William A. Messina, Executive Coordinator, International Agricultural Trade and Development Center, University of Florida, testimony before the USITC, Sept. 12, 2000, transcript, p. 523.

[171] ECLAC, *Economic Survey of Latin America, 1963*, p. 275.

[172] Antonio Gayoso, Economic Advisor, Economic Advisory Services, testimony before the USITC, Sept. 20, 2000, transcript, p. 516.

[173] Lawrence H. Theriot, "Cuba's Problem: Location, Location, Location," *Journal of Commerce*, Apr. 16, 1998, and USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," p. 26. Individuals who testified at the Commission's hearing provided additional information about the effects of U.S. sanctions on Cuba's shipping costs. Richard Bell, President and CEO, USA Rice Federation, transcript, p. 93; and Paula Stern, The Stern Group, testimony before the USITC, Sept. 19, 2000, transcript, p. 223; and Nelson Denlinger, Vice President, U.S. Wheat Associates, Wheat Export Trade Education Committee, testimony before the USITC, Sept. 20, 2000, transcript, p. 296.

[174] ECLAC, *Economic Survey of Latin America, 1963*, p. 264.

[175] EIU, *Cuba, Dominican Republic, Haiti, Puerto Rico*, No. 2, 1985, p. 10.

Impact during 1990-96

U.S. economic sanctions—in particular, the extraterritorial restrictions added by the 1992 Cuban Democracy Act (CDA)[176] and the Helms-Burton Act—appear to have had an adverse impact on Cuba's economy during the 1990s. However, by all reported accounts reviewed by the Commission, the adverse impact of the loss of Soviet bloc economic assistance appears to be the greatest factor affecting Cuba's post-1990 economy. Moreover, economic recovery after the mid-1990s demonstrates the resilience of the Cuban economy and its potential for growth through economic liberalization and integration into the global economy.

ECLAC reported that the loss of Soviet bloc economic assistance caused more economic damage to Cuba's economy than the 1929-1932 global Great Depression.[177] The loss of Soviet economic assistance meant that Cuba, for the first time since 1960, had no means to insulate its economy from the effects of global economic events as well as the effects of U.S. sanctions.

> With the . . .1991 dissolution of the Soviet Union, Cuba lost both its major markets and its primary source of foreign assistance. As a result, the Cuban economy collapsed, and the full effect of the U.S. embargo became evident.[178]
>
> Until 1990, the average Cuban was shielded from the impact of . . . [U.S. sanctions] by subsidies from the Soviet Union and Eastern Europe.[179]

Individuals who testified at the Commission's hearing for this investigation reported that the loss of Soviet economic assistance allowed many of Cuba's long-neglected economic problems to surface.

> The collapse of the Soviet Union and the socialist system had a strong impact on the Cuban economy. Cuba did not only face a reduction of 75 percent of its imports overnight, but also almost a total loss of its main markets when its economic relation with these countries disappeared, in particular with regard to preferential prices of sugar exports. The gross domestic product dropped 35 percent, and the budget deficit reached one-third of the GDP.[180]
>
> What has happened has been the effect of getting life support from the Soviet Union and having it withdrawn.[181]

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[176] The Cuban Democracy Act of 1992 is discussed in more detail in chapter 2.

[177] Ibid., p. 34.

[178] USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," p. 26.

[179] Lawrence H. Theriot, "Cuba's Problem: Location, Location, Location," *Journal of Commerce*, Apr. 16, 1998.

[180] Fernando Remirez de Estenoz, Principal Officer, Cuban Interests Section, Washington, DC, and Deputy Minister of Foreign Affairs of the Republic of Cuba, testimony before the USITC, Sept. 19, 2000, transcript, p. 54.

[181] Frank J. Gaffney, President and CEO, The Center for Security Policy, testimony before the USITC, Sept. 19, 2000, transcript, p. 112.

> [A]fter the disappearance of the Soviet Union and the Eastern European communist countries, the approximately $6 billion, maybe $7 billion, a year in military and economic assistance that Cuba was receiving from those states disappeared, ceased. And in the aftermath of that interruption, the Cuban economy contracted.[182]

> Sanctions are not the primary cause of [Cuba's] . . . hardship. . . . . Global events, such as the fall of the Soviet Union and internal inefficiencies, have weighed far heavier.[183]

> Cuba's economic policies have brought the country close to political and financial ruin. The disappearance of subsidies with the collapse of the Soviet Union compounded Cuba's problems.[184]

Economic inefficiencies impeded Cuba's ability to respond quickly to the loss of Soviet economic assistance. According to one individual, "Cuba's present economic tragedy can be explained as being part of the result of the failures and inefficiencies of a planned economy."[185] Inefficiencies in Cuba's collectivized agricultural sector contributed to food shortages; agricultural productivity in Cuba lagged significantly behind productivity increases in neighboring Caribbean countries, according to one report.[186]

Some sources stated that new restrictions, added to U.S. sanctions by the CDA and the Helms-Burton Act, imposed further hardship on the Cuban economy.

> So now, when they lose their [Soviet] subsidy that they need to really engage in economic trade, [the U.S.] Congress tightens the screws and says, but you are not going to trade with our businesses through their foreign subsidiaries. . . [P]assage of the Cuban Democracy Act and the Helms-Burton Act have had a significant impact in Cuba and have brought about probably the two most fundamental . . . changes in Cuba. One is the dollarization of the economy, and second is the opening to foreign investment. Cuba did not open to foreign investment until the screws were tightened.[187]

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[182] Brian Latell, Professor, Georgetown University, School of Foreign Service, testimony before the USITC, Sept. 19, 2000, transcript, pp. 119-120.

[183] Raymond C. Offenheiser, President, OXFAM America, testimony before the USITC, Sept. 20, 2000, transcript, p. 304.

[184] Antonio Gayoso, Economic Advisor, Sugar Producers of Cuba, testimony before the USITC, Sept. 20, 2000, transcript, p. 514.

[185] Lazaro Alvarez, Committee Chairman, United Cuban Organizations, testimony before the USITC, Sept. 19, 2000, transcript, p. 247.

[186] See note 3.

[187] Ignacio E. Sánchez, Shareholder, Verner, Liipfert, Bernhard, McPherson and Hand, testimony before the USITC, Sept. 20, 2000, transcript, pp. 460-461.

According to one source, U.S. sanctions began to have a real impact on the Cuban economy only after the CDA and the Helms-Burton Act were implemented.

> So the embargo can really . . . be said to have worked only in the 1990s, since the end of the Soviet subsidies and since the U.S. tightened the embargo with the Cuban Democracy Act in 1992 and the Helms-Burton law in 1996.[188]

The CDA tightened U.S. sanctions by, among other things, prohibiting trade with Cuba by all foreign subsidiaries of U.S.-based companies and by prohibiting entry of ships into U.S. ports 6 months after departing from a Cuban port or any time when carrying passengers or goods to or from Cuba. Some sources reported that CDA restrictions on trade by U.S.-based foreign subsidiaries have had an adverse impact on Cuba's ability to import food and medicines from the U.S. subsidiaries.

> The implementation of the Cuban Democracy Act . . . eliminated the continuation of most United States-based company foreign subsidiaries trade, more than 90 percent of which was composed of food products with enterprises within Cuba, while repositioning the continuation of health care product exports to Cuba government operated entities.[189]

Estimates of the economic impact of the CDA, on Cuba's ability to import food, medicines, and medical products vary widely. As mentioned above, Cuban economic data indicate that spending on health, education, and social security remained largely unchanged in peso terms during 1989-98.[190] However, anecdotal reports indicated an increase in the incidence of disease in Cuba in the post-Soviet era due to shortages of medicines.[191] Some sources indicated that U.S. sanctions prevented Cuba from obtaining medicines and medical devices only available in the United States[192] and that requirements that U.S. medical supplies exported to Cuba be subject to on-site inspections to ensure that the goods are not diverted from their intended use were burdensome.[193] Other sources emphasized the fact that U.S. sales and donations of

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[188] Otto J. Reich, President, RMA International, Inc. testimony before the USITC, Sept. 19, 2000, transcript, p. 171.

[189] John S. Kavulich, President, U.S.-Cuba Business Council, testimony before the USITC, Sept. 19, 2000, transcript, p. 152.

[190] ECLAC reported that spending on these items declined in real terms. ECLAC, *La Economía Cubana*, table A.7., and pp. 364 and 369; and EIU, *Country Profile: Cuba, 1999-2000*, pp. 15, 16, and 19.

[191] Richard Garfield, See note 52, p. 13; and TransAfrica Forum, see note 84.

[192] Fernando Remirez de Estenoz, Principal Officer, Cuban Interests Section, Washington, DC, and Deputy Minister of Foreign Affairs of the Republic of Cuba, transcript, p. 56; Anthony F. Kirkpatrick, Assistant Professor, Department of Anesthesiology, University of South Florida, transcript, p. 264; and William M. Paparian, former mayor of Pasadena, California, testimony before the USITC, Sept. 19, 2000, transcript, p. 337.

[193] Anthony F. Kirkpatrick, "The U.S. Attack on Cuba's Health," *Canadian Medical Association Journal*, August 1997, at *http://www.cma.ca/cmaj/vol-157/issue-3/0281.htm,* retrieved Nov. 25, 2000. One witness at the Commission's hearing testified that "Cuba has an excellent record" of ensuring that such supplies reach their intended destination. Lissa Weinmann, Communications Director, Americans for Humanitarian Trade with Cuba, testimony before the USITC, Sept. 19, 2000, transcript, p. 341.

food and medical products remained legally authorized despite the sanctions,[194] and drew a distinction between sales of U.S. food and medicines to Cuba (described as "non-existent" and "minimal") versus donations.[195] Other sources reported that Cuba was able to purchase many U.S.-patented medicines from third countries and at relatively low costs,[196] that Cuba received assistance from such sources as the EU and nongovernmental organizations,[197] that Cuba had sufficient access to state-of-the-art medicines and medical technology as to be able to market the island as a destination for foreign "health tourists," and that advanced medical care is available for Cubans with enough money to pay for it.[198] Some sources reported that a combination of factors—the loss of Soviet assistance, the more stringent rules of the CDA, and acquisitions of European pharmaceutical companies by U.S. companies in the 1990s[199] bringing those European companies under the scope of U.S. sanctions—had an adverse impact on Cuba.[200]

Some sources reported that the CDA forced Cuba to import from greater distances.[201] Higher transportation and freight costs, in turn, reportedly led to higher costs and lower levels of production in Cuba.[202] According to one report, U.S. sanctions "create a $virtual tax' of 30 percent on all imports . . . because [imports] have to be purchased from more expensive and more distant markets."[203] The social impact of such higher costs was reported to be "higher cost of materials, unavailability of technology, and barriers to the flow of information . . . seriously damaging to Cuba's efforts to reduce social inequality."[204]

The Helms-Burton Act tightened U.S. sanctions by, among other things, allowing U.S. citizens who claim to have property expropriated by the Cuban Government the right to sue foreign companies that benefit from the use of the property. Many sources reported that the extraterritorial nature of the Helms-Burton Act discourages foreign

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[194] Congressman Lincoln Diaz-Balart (R-Florida), testimony before the Commission, Sept. 19, 2000, transcript, p. 39. Another individual reported that, despite U.S. provisions for sales and donations of food and medicines to Cuba, the U.S. regulations are onerous and do not facilitate such sales; see Anthony F. Kirkpatrick, Assistant Professor, Department of Anesthesiology, University of South Florida, testimony before the USITC, Sept. 19, 2000, transcript, p. 260

[195] Paula Stern, The Stern Group, testimony before the USITC, Sept. 19, 2000, transcript, p. 138. As mentioned above, the State Department reports that the United States has been the largest humanitarian aid donor to Cuba since 1992. U.S. Department of State, "Cuba: Humanitarian Assistance," at *http://www.state.gov/www/regions/wha/cuba/humani_aid.html*, retrieved Nov. 25, 2000.

[196] Otto J. Reich, President, RMA International, Inc., testimony before the USITC, Sept. 19, 2000, transcript, p. 170; and Sergio Díaz-Briquets, "Comments on The Impact of the U.S. Embargo on Health and Nutrition in Cuba," 8th ASCE, p. 217.

[197] ECLAC, *La Economía Cubana*, p. 365.

[198] Lazaro Alvarez, Committee Chairman, United Cuban Organizations, testimony before the USITC, September 19-20, 2000, transcript, p. 245.

[199] Pharmaceutical products are discussed in greater detail in chapter 6.

[200] Peter G. Bourne, "The Impact of the U.S. Embargo on Health and Nutrition in Cuba," 8th ASCE, p. 214.

[201] Wayne S. Smith, Senior Fellow, Center for International Policy, testimony before the USITC, Sept. 19, 2000, transcript, p. 74.

[202] USDA, Economic Research Service, "Cuba's Agriculture: Collapse and Economic Reform," p. 26.

[203] Richard Garfield, See note 52, p. 16.

[204] TransAfrica Forum, see note 84.

investment in Cuba.[205] However, foreign investors have not abandoned the Cuban market. Some companies have sold or spun off their U.S. subsidiaries in order to avoid Helms-Burton Act sanctions.[206]

In general, the Cuban economy since 1990 appears to continue to operate largely independently of any effects of U.S. economic sanctions. External shocks and events not related to U.S. economic sanctions and Cuban domestic economic policies—the loss of Soviet economic assistance, the need to increase productivity and diversify the economy, and the limited economic reforms implemented to date—remain the primary factors constraining current Cuban economic performance. In recent years, the Cuban economy has shown its potential for economic growth despite U.S. economic sanctions. Much of that growth has been fueled by rapid growth in the tourism sector, aided by foreign investment that appears only minimally concerned about U.S. sanctions.

Cuban Government Estimates of the Costs of U.S. Sanctions

The Cuban Government estimates that the cumulative costs of the U.S. economic sanctions on the Cuban economy are $67 billion through 1998 (table 3-2).

Current Impact

To assess the current impact of U.S. sanctions on the Cuban economy, the Commission analyzed the economic impact of what U.S.-Cuban bilateral trade and investment flows might be in the absence of U.S. sanctions for a recent time period. Those estimated trade and capital flows were then used to assess the potential effects on the Cuban economy.

As discussed above, the primary constraints on Cuba's economic growth and ability to earn foreign exchange arise from Cuba's own domestic policies. Thus, it is unlikely that basic economic conditions in Cuba—including Cuba's production potential and foreign investment climate—would change significantly in the absence of U.S. economic sanctions. Moreover, any effects of U.S. economic sanctions, or their potential removal, are likely to be dwarfed by the ongoing adjustment of the Cuban economy to the withdrawal of Soviet economic assistance. As noted above, Cuba's

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[205] Kirk Reagan Menendez, General Counsel, Jorge Mas Canosa Freedom Foundation, testimony before the USITC, Sept. 19, 2000, transcript, p. 230; USITC, *Overview and Analysis of Current U.S. Unilateral Economic Sanctions*, investigation No. 332-391, publication 3124, August 1998, pp. 1-6 to 1-7; and European-American Business Council, *Is the Price Too High? The Cost of U.S. Sanctions Policies*, October 1997, p. 49.

[206] Susan Kaufman Purcell, Vice President, Americas Society and Council of the Americas, "Cuba," excerpted with permission from *Economic Sanctions and American Diplomacy*, ed. Richard N. Haass, (New York: Council on Foreign Relations Press, 1998), at *http://www.americas-society.org/spcuba.html*, retrieved Nov. 25, 2000.

Table 3-2
Cuban Government estimates of the costs of U.S. sanctions to the Cuban economy through 1998

	Billion dollars
Reduced Cuban exports of goods and services	30.2
of which:	
exports of goods	6.8
tourism	18.0
commercial air transportation	1.3
telecommunications	4.0
Costs due to geographic dislocation of trade	16.1
of which:	
increased transportation costs	6.5
increased costs in other markets	1.4
resources in fixed inventories	5.3
ports, warehouses, distribution	2.9
Costs of products and services (includes equipment for which spare parts became unavailable, technology embargo, and other effects on Cuban production)	9.6
Effects on the Cuban population	1.5
Financial and monetary costs (includes impact on exchange rate, bank accounts frozen in the United States, obstacles to international financing, difficulties in renegotiating foreign debt, increase in the cost of external financing)	7.4
Emigration costs ("brain drain")	2.2
Total	67.0

Source: Government of Cuba, briefing to USITC staff, July 21, 2000.

foreign investment climate remains relatively restrictive, and several observers have noted that the Cuban Government prefers to maintain diversification among trade and investment partners and to reward traditional suppliers who have traded with Cuba during the period of sanctions. Thus, the degree of U.S. market access to Cuba in the absence of sanctions is uncertain.

This analysis assumed that any potential U.S.-Cuban bilateral trade would occur as a result of diversion of trade away from Cuba's current trading partners (rather than the result of increased Cuban production of exportable goods and/or increased Cuban demand for imports), except to the extent that increases in Cuba's net foreign exchange position (through increases in payments from telecommunication services, travel and tourism, and foreign direct investment in the absence of sanctions) would increase Cuban import capacity. These assumptions, and the Commission's methodology for estimating trade and capital flows in this report, are discussed more fully in chapter 2 and in Appendix F.

Merchandise Trade

As discussed in chapter 2, the Commission estimates that, in the absence of sanctions, Cuba would have sourced from 17 to 27 percent of its annual imports from the United States based on average 1996-98 trade data, amounting to $658 million to approximately $1 billion dollars,[207] and shipped 7 to 15 percent of its average annual non-sugar exports[208] to the United States during 1996-98, amounting to $69 million to $146 million dollars. Because this estimated trade with the United States represents trade diverted from current Cuban trading partners, the overall impact on the Cuban economy most likely would be minimal.

Foreign Exchange Flows and Investment

In the absence of U.S. sanctions, Cuba potentially would have received additional foreign exchange from U.S. travel payments, telecommunications service payments,[209] and foreign direct investment totaling $135 million to $420 million, based on 1997 data, as reported in table 2-4.[210] The estimated total additional net foreign exchange for Cuba amounts to about 4 to 11 percent of Cuba's current import capacity. The increase in Cuba's imports associated with this additional foreign exchange is likely to be small, but measurable. Similarly, any additional capital accumulation arising either from foreign direct investment or other imports of capital goods out of additional foreign exchange would probably be small, as would the effects of such capital accumulation on Cuban economic growth.

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[207] This estimate excludes the effects of additional potential flows of foreign exchange from the United States to Cuba, as discussed in chapter 2 and below.

[208] The amount of Cuban sugar that would enter the United States in the absence of U.S. sanctions would be determined by U.S. sugar import policies and by U.S. WTO obligations. Sugar is discussed more fully in chapter 5.

[209] Current telephone traffic between the United States and Cuba appears to be only modestly less than the levels one would expect given the size of Cuba's economy, its geographic location, and its economic policies, according to gravity model estimates as described in Appendix F.

[210] This estimate does not take into account potential changes in foreign exchange flows due to remittances in the absence of sanctions. As discussed above, there is a wide range of estimates of remittances. Moreover, it is not clear if the flow of remittances would change in the absence of U.S. sanctions.

CHAPTER 4
Economic Impact on Services

Introduction

The services sector is becoming increasingly important to the U.S. economy.[1] In 1999, the value of output in the services sector reached $6.5 trillion, representing 80 percent of GDP for private industries, compared with $3.6 trillion in 1990 (74 percent of GDP for private industries).[2] Between 1990 and 1999, employment in the services sector also grew significantly, increasing from 65 million full-time equivalent employees (76 percent of private sector full-time-equivalent employees) to 83 million (80 percent).[3] Over the same time period, U.S. cross-border exports of services almost doubled from $137 billion to $255 billion, while the net surplus in services trade increased from $39 billion to $80 billion.[4] Moreover, U.S. majority-owned affiliates abroad recorded sales of services totaling $121 billion to foreign persons in 1990, rising to $309 billion in 1998 (the latest year for which data are available).[5]

In this chapter, the historical and current impact of U.S. economic sanctions with respect to Cuba are discussed for several key industries within the services sector. The historical impact of sanctions is discussed mainly in terms of trade and investment opportunities that may have been forgone by the two countries from the early 1960s to the present, while the current impact is analyzed in terms of potential trading and investment opportunities that would be gained by the two countries if sanctions were removed and trade and investment re-established. In analyzing the current impact of sanctions, only the impact of lifting sanctions is considered and all other factors are assumed to remain unchanged. In particular, the analysis assumes that the current political system remains the same, that no changes are made to Cuban economic policies, and that under these conditions, even with sanctions lifted, Cuba experiences few, if any, changes in economic trends.

Given that economic relations with Cuba have been nonexistent since the early 1960s and that U.S.-Cuba trade in services has been minimal since then, the analysis of the impact of removing U.S. sanctions on Cuba relied on estimating expected trade flows for selected services had there been no sanctions. Service sectors were selected for this chapter based on many criteria. Generally, sectors were selected if:

- the United States is internationally competitive in a particular service and a significant exporting country to world markets, especially to the Caribbean region;

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[1] Information on the role of the services sector in the U.S. economy is taken from *Economic Report of the President*, transmitted to Congress, Feb. 2000 (Washington, DC: U.S. Government Printing Office, 2000), p. 307 (GDP), p. 358 (employment), and p. 424 (trade).

[2] Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1994, p. 31, and Sept. 2000, p. D-30.

[3] Ibid., July 1994, p. 89, and Sept. 2000, p. D-35.

[4] Ibid., Oct. 2000, pp. 130-131.

[5] Ibid., Sept. 1993, p. 153, and Oct. 2000, p. 159.

- Cuba is a significant importer of the service from world markets, especially Canada and Europe; and
- U.S. industry leaders and representatives have argued that trade would be significant in the absence of sanctions.

Based on these criteria, service sectors to be covered include air and maritime transportation, banking and insurance, construction, and telecommunications services. To these sectors, tourism was added as Cuba is internationally competitive and is a significant exporting country to world markets, especially to Canada and Europe.

As indicated in chapter 1, the background information and analysis presented in this chapter, as well as estimates on telecommunications and tourism services trade with Cuba, are based on several sources, including academic reports and industry publications, government trade statistics, interviews with industry representatives, the results of the Commission telephone survey of U.S. companies and trade associations, hearing testimony and written submissions, Commission staff travel within the United States and Cuba, and gravity model estimates.[6]

Air Transportation Services[7]

The U.S. air transport industry comprises 10 major passenger airlines and employs close to a million people.[8] In 1998, revenues generated by the U.S. air transport industry reached $88 billion.[9] During the same year, U.S. exports of air transport services equaled nearly $32 billion, roughly the same value as U.S. imports.[10] On average during 1995-98, U.S. airlines accounted for 38 percent of world passenger traffic and 25 percent of world freight traffic. Factors that influence the international competitiveness of U.S. air carriers include airline rates, quality of service, and route network.[11]

The United States currently permits only authorized U.S. airlines and air carriers to operate charter flights to Cuba. All charter flight operators to Cuba must be licensed by

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[6] The gravity model is discussed in Appendix F. In addition to current impacts, several "long-term" estimates of U.S.-Cuban trade based on an array of assumptions about economic growth, future management of the Cuban economy, as well as availability of foreign capital were made available to Commission staff. These estimates are also reported.

[7] Air transportation services include passenger transportation, freight transportation, and port services. Passenger and freight transportation comprise both scheduled service and nonscheduled service. Port services include passenger air terminal services, such as ground handling and runway operating services.

[8] Air Transport Association (ATA), *A New Century: A New Vision*, Annual Report (Fiscal Year 1999), p. 17; and U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Apr. 2000, p. 83.

[9] U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, June 2000, p. 41.

[10] Ibid., pp. 68-71.

[11] Industry representatives, telephone interviews by the Commission staff, Aug. 4 and 21, 2000.

the Office of Foreign Assets Control (OFAC) of the U.S. Department of the Treasury.[12] Currently, some U.S. passenger airlines provide air transport service to Cuba by leasing their aircraft to licensed U.S. charter operators.[13] Only OFAC-licensed travel service providers are authorized to sell airline tickets for flights between the United States and Cuba.[14] Therefore, although U.S. airlines receive revenue from leasing aircraft for the transport of passengers to Cuba, they do not receive income from airline ticket sales.[15]

The Cuban air transport industry comprises one flagship carrier, Cubana de Aviación, along with four smaller airlines that fly domestic or short-haul international routes.[16] In 1999, Cuban airlines transported nearly 1.7 million passengers on both domestic and international flights.[17] Cuban airlines carry less than 1 percent of passenger and freight traffic worldwide.[18] Many of the aircraft in Cuba's fleet are aging and in need of repair or replacement. With the help of foreign investment, the Cuban Government has renovated some of the country's seven airports that handle international flights.[19]

Historical and Current Impact of Sanctions on the United States

Given the relatively small size of the Cuban air transport market, industry sources indicated that the historical impact (based on foregone revenues from ticket sales) of U.S. economic sanctions with respect to Cuba on U.S. airlines was measurable but

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[12] OFAC issues Carrier Service Provider (CSP) licenses to U.S. companies operating charter flights to Cuba, and Travel Service Provider (TSP) licenses to companies that sell airline tickets to passengers traveling to Cuba. U.S. Government official, telephone interview by the Commission staff, Aug. 1, 2000.

[13] U.S. airlines providing service to Cuba generally establish wet-leasing contracts with charter operators (i.e., the leasing of aircraft with crew). U.S. Government official, telephone interview by the Commission staff, Aug. 21, 2000.

[14] Reportedly, some U.S. airlines have also received Travel Service Provider (TSP) licenses from OFAC, but do not currently sell tickets for flights to Cuba because of stringent requirements associated with establishing passenger service operations at Cuban airports. Based on Commission staff telephone interviews with U.S. Government official, Aug. 1, 2000, and industry representative, Aug. 4, 2000.

[15] In 1999, the United States implemented measures to expand the number of direct passenger charter flights between the United States and Cuba. In addition to existing licensed direct passenger charter flights between Miami and Havana, departures from other U.S. cities were authorized; direct flights also were authorized from the United States to Cuban cities other than Havana. Bureau of Inter-American Affairs, U.S. Department of State, "Cuba: Direct Flights," fact sheet, at *http://www.state.gov/www/regions/wha/fs_990105_ cuba_flights.html*, retrieved Jan. 17, 2001.

[16] Apart from Cubana de Aviación, other Cuban airlines include AeroCaribbean, AeroGaviota, ENSA, and InterCuba, a joint venture between Grupo Internaciónal de Aerolíneas Centroamericana, a consortium of Central American airlines, and the Cuban Government. Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 131.

[17] Oficina Nacional de Estadistícas, *Anuario Estadístico de Cuba 1998*, Edición 1999, Havana, p. 216.

[18] International Civil Aviation Organization (ICAO), *Annual Report of the Council-1999*.

[19] U.S.-Cuba Business Council, Dr. Jaime Suchlicki, "Cuba Transition Project," *Cuba Industry Review*, (Miami: Info-Cuba, Inc., 1998). Further background on the U.S. and Cuban air transportation services industries can be found in Appendix G, tables G-1a through G-1d.

small.[20] Employment was also minimally impacted because aircraft and crew assigned to fly to Cuba were redeployed to other markets.[21]

However, industry representatives also noted that sanctions have adversely affected the scope of U.S. airlines' business in the Caribbean. For example, according to one industry representative, prior to 1960, his airline had operated flights to Cuba (for example, from New Orleans) as an integral part of its Caribbean service.[22] After U.S. economic sanctions were imposed, Cuba-bound flights operated by this and other U.S. airlines were terminated, and carriers from Canada, South America, and Europe began transporting non-U.S. residents to Cuba.[23]

U.S. airports have also been adversely affected by economic sanctions with respect to Cuba. Currently, OFAC-licensed air carriers are authorized to operate flights from only three U.S. airports: Miami International Airport, John F. Kennedy International Airport in New York City, and Los Angeles International Airport. In 1998, Miami International Airport received about $30 million in revenues (including landing fees, gate fees, and passenger ticketing fees charged to airlines) from chartered flights between the United States and Cuba. This amount is most likely less than the airport would receive if U.S. airlines were able to provide regularly scheduled service from Miami to Cuba.[24]

According to industry representatives, the current impact of sanctions on U.S. airlines is to deny them a small but potentially profitable market. U.S. airlines would be very interested in establishing regularly scheduled air transport service to Cuba in the absence of U.S. sanctions. They noted, however, that the scope of service provided by U.S. airlines to Cuba would depend on the terms of a renegotiated U.S.-Cuba bilateral air service agreement,[25] and the conditions under which the Cuban Government would permit U.S. airlines to operate.[26]

U.S. industry sources noted that, because of the sizable Cuban-American community in the United States,[27] the air transport market in Cuba is likely to be as large as either

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[20] Industry representatives, telephone interviews by the Commission staff, July 26, and Aug. 4 and 21, 2000.

[21] Industry representative, telephone interview by the Commission staff, Aug. 4, 2000.

[22] Ibid.

[23] At present, roughly 60 passenger airlines fly to Cuba, 40 of which are charter operators. Non-U.S. airlines that provide regularly scheduled service to Cuba include, among others: Aeroflot, Air France, Aerolíneas Argentinas, British Airways, Iberia, Mexicana de Aviación, and Japan Airlines. Some of this service is seasonal to service winter tourism. U.S.-Cuba Trade and Economic Council, Inc., "Economic Eye on Cuba," May 31 - June 6, 1999, at *http://www.cubatrade.org*, retrieved July 25, 2000.

[24] Industry representative, telephone interview by the Commission staff, Aug. 1, 2000.

[25] In 1953, a bilateral air service agreement was established between the United States and Cuba permitting U.S. and Cuban airlines to fly between the two countries. U.S. Government official, telephone interview by the Commission staff, July 27, 2000.

[26] According to an industry representative, U.S. charter flight operators to Cuba currently provide service under "extra-bilateral" authority (i.e., authority granted under mutual agreement of the U.S. and Cuban Governments that lies outside the scope of the U.S.-Cuba bilateral air service agreement). Industry representatives, telephone interviews by the Commission staff, July 26, and Aug. 4 and 21, 2000.

[27] For instance, 500,000 Cuban-Americans are reportedly living in Dade County, FL, and another 500,000 in Chicago, Los Angeles, New Orleans, the New Jersey-New York area, Tampa, and San Juan, Puerto Rico. Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 131.

of the two largest Caribbean markets that U.S. airlines currently serve: Dominican Republic and Puerto Rico.[28] As such, if U.S. airlines were to commence scheduled passenger service to Cuba, annual revenues from such service would account for no more than 1 percent of total passenger revenues. Nonetheless, industry representatives emphasized that, although the Cuban market is small, it is a potentially profitable one for U.S. airlines.[29] One U.S. airline representative estimated that in the absence of U.S. sanctions the airline would earn about $25 million annually from passenger operations and $750,000 from cargo operations.[30] Another industry representative estimated that his airline could earn passenger revenues of nearly $150 million annually if it were to operate regularly scheduled flights to Cuba.[31] A U.S. airline representative indicated that, if able to resume regular service to Cuba, they would probably channel such service through their U.S. hubs which, in turn, would have a positive impact on the revenues of U.S. airports.[32]

U.S. airlines are not concerned about competition from Cuban airlines in the absence of U.S. sanctions, as Cuban airlines are not considered significant competitors.[33] In addition, although several foreign airlines (e.g., British Airways and Iberia) currently serve the Cuban market, the conditions under which these carriers would provide air transport service between the United States and Cuba would likely be constrained by bilateral air service agreements between the U.S. and foreign countries.

Historical and Current Impact of Sanctions on Cuba

The historical impact of sanctions on Cuba's air transportation services sector has been fairly significant. In the 1950s, the Cuban airports of Havana and Camaguey served as hubs for air passenger traffic between the United States and South America and were reportedly among the busiest airports in the Caribbean.[34] The Commission estimates that annually an additional 100,000 to 350,000 U.S. residents may be expected to travel to Cuba, primarily as tourists, in the absence of sanctions, although other estimates are significantly higher (see discussion of Travel and Tourism Services). Growth in passenger traffic between the United States and Cuba is likely to benefit

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[28] Industry representative, telephone interview by the Commission staff, July 26, 2000.

[29] Industry representatives, telephone interviews by Commission staff, July 26, and Aug. 4 and 21, 2000; and Air Transport Association (ATA), *A New Century: A New Vision*, Annual Report (Fiscal Year 1999), p. 18.

[30] This airline currently leases its aircraft to charter operators for the transport of passengers to Cuba, but does not transport cargo on these passenger flights. Estimated revenue from the transport of cargo is based on approximate 1999 revenues for the airline's cargo operations in Puerto Rico. Industry representatives, telephone interviews by the Commission staff, July 26 and Aug. 3, 2000.

[31] This estimate is based on an assumption of transporting 600,000 passengers annually, and represents roughly 1 percent of total passenger revenues for the airline in 1999. Industry representative, telephone interview by the Commission staff, Aug. 4, 2000; and Air Transport Association, see note 29.

[32] Industry representative, telephone interview by the Commission staff, Aug. 4, 2000.

[33] One U.S. industry representative indicated that most U.S. citizens traveling to Cuba would likely favor U.S. airlines because of "familiarity, product quality, and other factors." Industry representatives, telephone interviews by the Commission staff, July 26 and Aug. 4, 2000; and industry representative e-mail to the Commission staff, Nov. 6, 2000.

[34] International Civil Aviation Organization (ICAO), *Annual Report of the Council-1999*; and U.S.-Cuba Business Council, Dr. Jaime Suchlicki, "Cuba Transition Project: Cuba Industry Review." (Miami: Info-Cuba, Inc., 1998).

Cuba's flagship airline, Cubana de Aviación,[35] and another Cuban carrier, AeroCarribean, which reportedly transported 28 percent of all international visitors to Cuba in 1998.[36] Likely competitors in the U.S.-Cuba air transport market include major U.S. airlines, such as American, Delta, and U.S. Airways, and foreign carriers.[37]

Recently, the Cuban Government, aided by Canadian foreign investment, renovated the country's largest airport, Jose Martí International serving Havana, and expanded Juan Gualberto Gómez International airport, Cuba's second largest airport serving the tourist resort of Varadero. Several smaller airports that handle international flights have also been expanded. These airports would benefit from regularly scheduled flights to Cuba by U.S. airlines. One representative from a U.S. airline noted that, were his company to commence regular service to Cuba, it would employ at least 40 persons as ticket agents and ground handling personnel at each Cuban airport that it served. The airline would probably begin full-scale operations in Cuba 6 months after the removal of sanctions.[38]

Maritime Transportation Services[39]

The U.S. maritime transport services industry consists of about 280 U.S. flag vessels[40] and employs approximately 173,000 people.[41] In 1998, revenues generated by the U.S. industry were $14 billion.[42] During the same year, U.S. exports of maritime transport services equaled nearly $11 billion, while U.S. imports totaled over $13 billion.[43] U.S. foreign waterborne transportation[44] is expected to grow by 3 to 4 percent annually between 1998 and 2002.[45]

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[35] Effective Dec. 1, 2000, the U.S. Department of State prohibited its personnel from all travel utilizing Cuba de Aviación, and recommended that other Americans defer travel on Cubana de Aviación, because of concerns about safety standards and maintenance of the airline. U.S. Department of State, "Cuba-Consular Information Sheet," Dec. 1, 2000, at *http://travel.state.gov/cuba.html,* retrieved Jan. 17, 2001.

[36] In addition, during 1998, these two carriers transported roughly 250,000 foreign tourists between points within Cuba. "Airline traffic, airport construction rose in 1998," *CubaNews*, Jan. 1999.

[37] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 131.

[38] Maritime transportation services include passenger transportation, freight transportation, and port services. Passenger transportation includes the transport of individuals on passenger vessels such as coastal-water ferries and cruise ships. Freight transportation is the transport of merchandise on oceangoing vessels such as containerships, dry bulk carriers, and tankers. Port services include services associated with the operation of ports, harbors, and passenger terminal facilities. Demand for freight transportation and port services stems from merchandise trade.

[39] This number includes self-propelled oceangoing vessels of 1,000 tons and above that are privately owned. U.S. Department of Transportation, Maritime Administration, "Merchant Fleets of the World," Jan. 1, 2000.

[40] See note 32.

[41] U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Apr. 2000, p. 83.

[42] Ibid., June 2000, p. 41.

[43] Ibid., pp. 68-71.

[44] U.S. foreign waterborne transportation denotes imports and exports carried by U.S. ships between the United States and foreign ports. U.S. Department of Transportation, Bureau of Transportation Statistics, Maritime Administration, U.S. Coast Guard, *Maritime Trade & Transportation 1999* (Washington, DC: 1999), p. 11.

[45] Ibid.

The Cuban merchant marine reportedly operated 406 vessels under the Cuban flag in 1991, but that number declined to just 17 large-scale vessels in 1999.[46] Cuba's state-owned merchant marine transports cargo between Cuba and northern Europe, the Baltic, the Mediterranean, Japan, Latin America, and other parts of the Caribbean.[47] The Cuban fleet is managed by two Government-owned entities: Navegación Mambisa, which handles international shipping, and Navegación Caribe, which oversees domestic and Caribbean shipping.[48]

Historical and Current Impact of Sanctions on the United States

Historically sanctions had an adverse impact on several U.S. seaports. Prior to the imposition of U.S. sanctions, Cuba was reportedly an important trading partner for the U.S. maritime services industry, particularly for U.S. seaports. For instance, in 1960, Cuba was the leading trading partner for the Port of New Orleans, and roughly one-third of all cargo shipped through the port was sent to Cuba.[49] According to industry representatives, it took nearly 10 years for the Port of New Orleans to replace the volume of cargo that it previously shipped to Cuba with shipments to other countries.[50] Florida ports were also active in U.S.-Cuba trade, including the Port of Jacksonville and Port Everglades.[51]

According to industry representatives, U.S. ports, shipping lines, and cruise lines probably would benefit in the absence of U.S. sanctions. For example, one industry representative estimated that, were the United States to re-establish trade with Cuba, an additional 500,000 to 2,000,000 metric tons of cargo destined for Cuba would move annually through the Port of New Orleans which, in turn, would create 300 to 500 new longshoreman jobs.[52] Moreover, industry sources estimated that if U.S. shipping lines were permitted to transport cargo to and from Cuba, they would receive annual revenues of between $600 million and $700 million,[53] and they would further

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[46] This number includes self-propelled oceangoing vessels of 1,000 tons and above. U.S. Department of Transportation, Maritime Administration, "Merchant Fleets of the World," Jan. 1, 2000, and Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 127.

[47] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 131.

[48] Ibid. Further background on the U.S. and Cuban maritime transportation services sectors can be found in Appendix G, tables G-2a through G-2d.

[49] Industry representative, telephone interview by Commission staff, Aug. 2, 2000; and Nicolas A. Robins and Maria F. Trujillo, "Normalized Trade Relations Between the United States and Cuba: Economic Impact on New Orleans and Louisiana," *Cuba in Transition–Volume 9*, (Washington: Association for the Study of the Cuban Economy, 1999), pp. 96-102, 148.

[50] Industry representative, telephone interview by the Commission staff, Aug. 2, 2000.

[51] Industry representatives, telephone interviews by the Commission staff, June 29 and Aug. 16, 2000.

[52] Another source has estimated that if U.S.-Cuba trade relations were resumed, between 200,000 and 1,400,000 metric tons of Cuban exports and imports would pass through the Port of New Orleans. See note 50. Robins and Trujillo, p. 102.

[53] This estimate is derived from an industry report completed in May 1996 by a private management consulting firm, and is based on gross revenues received by all competing U.S. shipping lines that provide service between the United States and Puerto Rico. Industry representative, telephone interview by the Commission staff, July 31, 2000.

gain from the ability to serve ports between Cuba and other foreign countries.[54] Finally, U.S. cruise lines would also benefit from the resumption of trade between the United States and Cuba.[55] At the same time, however, industry sources noted that some U.S. cruise lines might choose to base their operations in Cuba, rather than in the United States, because of potentially lower fees at Cuban ports.[56]

Industry representatives indicated that they were not concerned about competition from Cuban shipping lines given that Cuba has a small merchant fleet.[57] In addition, under the Jones Act, Cuban-owned vessels would be prohibited from transporting cargo between U.S. ports.[58]

Historical and Current Impact of Sanctions on Cuba

The historical impact on Cuba's maritime services industry of economic sanctions on Cuba has been significant, according to industry sources, who noted that the development of Cuban seaports has been adversely affected by the Cuban Democracy Act of 1992 (CDA), which prohibits U.S.-flag vessels from transporting cargo or passengers to or from Cuba, or carrying goods in which a Cuban national has an interest. In addition, ships which have visited a Cuban port may not dock in a U.S. port for 6 months after having been in Cuba.[59] Cuban officials reported that the CDA has increased shipping costs to Cuba by 23 percent and has deterred many vessels of foreign shipping lines from docking in Cuban ports.[60]

It is estimated that Cuba's merchant fleet would benefit in the absence of U.S. sanctions. In particular, with the resumption of U.S.-Cuba trade, several of Cuba's ports would probably focus their operations on the export of goods from Cuba to the east coast of

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[54] Few major U.S. shipping lines retain ownership of their international operations. For instance, within the past two years, Sealand/CSX sold its international fleet to Danish shipping line Maersk, and Crowley sold its South American operations to the German shipping line Hamburg-Sud, though it still provides service to Central America and the Caribbean. U.S. vessels that would serve Cuba should normal trade relations be restored would probably be those of small U.S. shipping firms. Industry representatives, interviews with the Commission staff, July 31 and Aug. 16, 2000.

[55] In 1998, Cuba's Ministry of Tourism estimated that nearly 25,000 tourists would travel on passenger ships to Cuba between Dec. 1999 and Apr. 2000. From Jan. 1998 to May 1998, 39 cruise ships visited Cuba, primarily those operated by Club Méditerranée S.A., a France-based cruise line. U.S.-Cuba Trade and Economic Council, "1999 Commercial Highlights," at *http://www.cubatrade.org/99highlights.html*, retrieved June 9, 2000; and U.S.-Cuba Trade and Economic Council, "Economic Eye on Cuba," May 11-17, 1998, at *http://www.cubatrade.org/eyeonw.html*, retrieved July 25, 2000.

[56] Industry representative, telephone interview by the Commission staff, June 29, 2000.

[57] Ibid.

[58] The Jones Act is the shorthand name given to section 27 of the 1920 Merchant Marine Act (46 U.S.C. 883). Under the Jones Act, ships that transport cargo between U.S. ports must be built and registered in the United States and owned and operated by U.S. citizens. "Maritime Transportation Issues and the 105th Congress," Congressional Research Service Report for Congress, Sept. 17, 1997, p. 1.

[59] In some cases, the U.S. Government has permitted U.S. vessels to transport cargo to Cuba (e.g., food and medicine) for humanitarian reasons. Nicolas A. Robins and Maria F. Trujillo, "Normalized Trade Relations Between the United States and Cuba: Economic Impact on New Orleans and Louisiana," *Cuba in Transition–Volume 9*, (Washington: Association for the Study of the Cuban Economy, 1999), p. 99; U.S. Government official telephone interview by Commission staff, Aug. 22, 2000. The CDA is discussed in chapter 2.

[60] "Lage says U.S. embargo costs Cuba $800 million per year," *CubaNews*, Feb. 1999.

the United States.[61] Such trade would also provide incentives for Cuba to expand its merchant fleet for the transport of U.S. goods.[62]

In the absence of sanctions, maritime services provided by U.S. firms to Cuba would be subject to commitments made under the General Agreement on Trade in Services (GATS), under which Cuba prohibits foreign companies from operating cargo-carrying vessels under the Cuban flag.[63] At present, ships that are registered in a number of foreign countries transport cargo to Cuba,[64] including those from Germany, Norway, the Netherlands, Singapore, Thailand, and the United Kingdom.[65] U.S. shipping lines would probably compete with vessels registered in these countries in the absence of sanctions.

Banking Services and Insurance Services[66]

In 1999, there were 10,200 depository institutions[67] in the United States, down from almost 12,000 in 1995. These institutions recorded total assets of $7 trillion in 1999, with total deposits of $5 trillion.[68] U.S. banks recorded cross-border exports of $14 billion in 1999, compared to cross-border imports of $4 billion, for a U.S. trade surplus of $10 billion in banking services.[69] The U.S. banking industry is a leader in global markets. At year-end 1998, U.S. institutions made up 20 percent of the world's 100 largest commercial banks.[70]

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[61] "Port System and Merchant Marine," *CubaNews*, Sept. 2000; and Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 124.

[62] "Port System and Merchant Marine," *CubaNews*, Sept. 2000.

[63] World Trade Organization (WTO), General Agreement on Trade in Services (GATS), *Republic of Cuba: Schedule of Specific Commitments*, GATS/SC/24, Apr. 15, 1994, p. 20.

[64] Shipping lines often choose to register their vessels under foreign flags to avoid the high labor costs, high taxes, and restrictive regulations that may pertain to their national maritime services industry. U.S. Department of Transportation, Bureau of Transportation Statistics, Maritime Administration, U.S. Coast Guard, *Maritime Trade & Transportation 1999* (Washington, DC: 1999), pp. 5-6.

[65] Lloyd's Maritime Information Services, "Vessel Callings at Cuba As of Jan. 1-July 30, 2000," U.S. Department of Transportation, Maritime Administration, Office of Statistical and Economic Analysis, July 2000.

[66] For the purposes of this discussion, banking services comprise fee-based commercial banking services including financial management and transactions services, advisory services, custody services, credit card services, and other credit-related services, such as provision of standby letters of credit for trade financing. Banks' deposit-taking and lending services are excluded from this discussion, as the U.S. Department of Commerce, Bureau of Economic Analysis does not report data on trade in those services. The insurance industry underwrites financial risk for life and nonlife (property/casualty) products and provides many specialty items, including reinsurance, marine and transportation insurance, and brokerage services.

[67] Includes commercial banks and savings institutions. Does not include credit unions.

[68] *FDIC* Quarterly Banking Profile, First Quarter 2000, table 1-C, p. 16.

[69] U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, pp. 130-131. Due to data limitations, these figures also include fees for securities-related services, such as securities trading and underwriting services.

[70] "The World's 100 Largest Banks," *Institutional Investor,* Aug. 1999, pp. 113-117.

U.S. insurance companies generated more than $490 billion in premiums for life and health insurance in 1999 and $287 billion in premiums for property/casualty insurance in that year.[71] Cross-border exports of insurance services generated $2 billion in net premium payments the same year, with net cross-border imports of $4 billion, for a U.S. trade deficit of $2 billion in insurance services.[72] U.S. insurance firms accounted for 34 percent of total global insurance premiums in 1998—28 percent of life insurance premiums and 43 percent of property/casualty premiums.[73]

As of March 2000, the Cuban banking industry consisted of 25 depository institutions, including 8 Cuban banks and 17 representative offices of foreign banks. All Cuban banks are owned and operated by the Cuban Government. Beginning with a 1994 banking reform law, the representative offices of foreign banks have been permitted to offer certain financial services (primarily trade and investment financing) to foreign firms and Cuban enterprises and joint ventures, but they may not accept deposits within Cuba.[74] There were three Cuban insurance companies as of 1999, all owned and operated by the Cuban Government.[75] A 1997 law permits the establishment of private insurers and the operation of insurance agents and brokers. There is at least one British-Cuban insurance joint venture, but the total number of private insurers in operation is unknown.[76] Direct insurance premiums from life and property/casualty policies were estimated at $165 million in 1998.[77] Revenues generated by Cuba's financial sector totaled 547 million Cuban pesos in 1998.[78] Cuban firms are not active participants in global banking or insurance markets.[79]

Historical and Current Impact of Sanctions on the United States

According to industry sources, the historical impact of sanctions on overall revenues and employment in the U.S. financial services industry has been small, because Cuba is a relatively small market and U.S. firms are world leaders in financial services. Both U.S. banks and insurance companies were active in Cuba prior to the imposition of sanctions. U.S. banks, several of which had branches in Cuba, were involved in financing U.S.-Cuba trade, and industry representatives indicated that Cuba was

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[71] A.M. Best Co., Inc., *Best Review*, July 2000, pp. 53 and 87.

[72] See note 69.

[73] Swiss Re, "World Insurance in 1998," *Sigma* No. 7/1999.

[74] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 2-10; and U.S.-Cuba Business Council, "Transition Project Report on Cuba's Financial Sector," Feb. 22, 1999, pp. 3-6.

[75] Government of Canada, Department of Foreign Affairs and International Trade, *Cuba: A Guide for Canadian Businesses*, 2nd ed., June 1999, p. 27, at *http://www.dfait-maeci.gc.ca/geo/html_documents/cuba-e.htm*, retrieved Apr. 12, 2000.

[76] Insurance Services Network, at *http://www.isn-inc.com/countries/cuba.htm*, retrieved Aug. 10, 2000.

[77] Industry representative, from private report.

[78] Includes banking, insurance, real estate, and business services. Oficina National de Estadisticas, *Anuario Estadistico de Cuba 1998,* Havana.

[79] Further background on the U.S. and Cuban banking and insurance sectors can be found in Appendix G, tables G-3a through G-3d, and G-4a through G-4d.

historically one of their most important markets in Latin America. Several U.S. insurers were also licensed to do business in Cuba before the sanctions were imposed, but only one company reported that its Cuban operations comprised a significant percentage of its business.[80] Insurance industry representatives noted that the limitations that sanctions placed on their international operations outside of Cuba were more important than the direct impact of the sanctions on U.S. insurance operations in Cuba. This is because overseas offices of U.S. insurance companies, which are also prohibited from insuring risks in Cuba, have reportedly turned away business from non-U.S. clients with assets in Cuba, or have been obliged to exclude coverage of those assets from a comprehensive, global insurance package.[81] U.S. insurance companies indicated that clients requiring global coverage may turn to non-U.S. insurance companies for all of their insurance needs.[82]

The current impact of sanctions on the U.S. banking and insurance industries is reportedly small. Without changes to Cuba's economic system, U.S. financial industry representatives expect that Cuba would present only limited market opportunities in the absence of U.S. sanctions. The Cuban economy is small and the nationalized structure of the banking and insurance industries would probably remain an impediment to investment in this sector.[83] Business opportunities for U.S. banks would largely be limited to financing U.S. trade with Cuba and to handling family remittances from the United States to Cuba.[84] One U.S. banker stated that he would expect profits from the remittances from Cubans abroad to total $10 million per year if sanctions were lifted.[85] Several industry representatives expected that their firms would try to significantly expand their business activities in Cuba, including opening branches there if, in addition to removal of U.S. economic sanctions, the Cuban finance sector were opened to competition from the private sector. One banker suggested that his firm would be operating in Cuba within 6 to 12 months under such a scenario, and that it would make significant investments in the Cuban market.[86]

U.S. insurance firms reported that they would be interested in providing a wide range of services in Cuba, including life insurance, pension products, and property/casualty insurance for individuals and businesses.[87] Several insurance industry representatives estimated that within 2 to 5 years they could become active competitors in the marketplace, while another representative estimated that within 2 to 3 years, in a privatized, competitive market, his firm would expect to earn annual revenue of

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[80] That company reported losses of $25 million as a result of the expropriation of the industry by the Cuban Government. Since then, the firm has concentrated primarily on domestic business. Industry representative, telephone interview with Commission staff, July 14, 2000.

[81] Large insurance firms often prefer to offer their multinational clients a single package of services to meet their needs around the world. Owing to the U.S. sanctions on Cuba, a European affiliate of a U.S. insurance firm, for example, is prevented from insuring the Cuban assets of a large European-based multinational company. The U.S. insurer is thus unable to provide such a global package of insurance services to foreign firms with assets in Cuba.

[82] Industry representative, telephone interview by the Commission staff, Aug. 1, 2000.

[83] Commission staff interview with officials of the Central Bank of Cuba, Havana, July 19, 2000.

[84] Remittances are discussed in more detail in chapter 3.

[85] Industry representative, telephone interview by the Commission staff, Aug. 11, 2000.

[86] Ibid., July 18, 2000.

[87] Industry representatives, telephone interviews with the Commission staff, July and Aug. 2000.

between $3 million and $5 million in Cuba.[88] This additional business would likely generate a number of U.S. jobs for both insurance carriers and brokers.[89]

Industry representatives also pointed to several issues that might serve as potential trade barriers. A number of U.S. firms have not been compensated for assets expropriated by the Cuban Government at the time sanctions were imposed, and U.S. industry representatives from both the banking and insurance industries noted that the issue would need to be addressed before they would invest in Cuba.[90] In addition, U.S. banks, particularly those active in Florida, would be hesitant to do business with present-day Cuba for concern over alienating the U.S. Cuban-American community.[91]

Historical and Current Impact of Sanctions on Cuba

The historical impact of U.S. sanctions on Cuba's banking and insurance sectors has been small. Cuba was not an exporter of banking or insurance services to the United States prior to the imposition of U.S. sanctions; thus, sanctions have historically had very little direct impact in these sectors.

In the absence of U.S. sanctions, U.S. banks and insurers would most likely concentrate on offering services to other foreign investors in Cuba, competing with banks and insurance firms from Europe and Canada.[92] Cuba has no specific policies that prohibit foreign firms, as opposed to domestic Cuban firms, from participating in the Cuban market. However, because no privately owned banks or insurance firms are permitted in the domestic market, foreign firms are effectively excluded from most of the country, although they are able to form joint ventures with Cuban firms.

As of July 2000, four joint ventures between state-owned Cuban banks and European banks or finance companies were operating (one was domiciled in Cuba, the others in offshore locations).[93] One of the joint ventures, Corporación Financiera Habana, conducted more than $28 million in business during 1999, including loans, leasing, and lines of credit.[94] Cuba's three government-owned insurance companies focus on the basic insurance needs of Cuban individuals and businesses. There is at least one joint venture in the insurance industry.[95] In the absence of sanctions, similar banking

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[88] Ibid., Aug. 1, 2000.

[89] Ibid., July and Aug. 2000.

[90] Ibid.

[91] Ibid.

[92] Industry representatives, telephone interviews with the Commission staff, July and Aug. 2000; Foreign banks in Cuba primarily offer trade and investment financing to foreign investors. Country manager for a foreign bank, interview with commission staff, Havana, July 20, 2000.

[93] Industry representative, interview with the Commission staff, Havana, July 2000; "Spanish, Canadian banks working on two financial joint ventures," *CubaNews,* Feb. 1999; "BNP to open office in Havana as bid by British firm is rebuffed," *CubaNews,* Mar. 2000.

[94] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 2-11.

[95] In October 1998, British insurer Heath Group and Cuban-owned Esicuba formed the first Cuban joint venture to sell commercial insurance to foreign investors. Heath de Cuba will offer specialized insurance for hotels, industrial plants, and other projects to both foreign and Cuban customers. Industry representative, interview with the Commission staff, Havana, July 2000; "UK-Cuba Insurance Venture," *CubaNews*, Oct. 1998.

and insurance company joint venture opportunities may be available to U.S. firms, although such opportunities may be limited given the small size of the Cuban economy and the established presence of foreign competitors.

The Cuban economy as a whole would also be expected to benefit from additional foreign competition, particularly in the insurance sector, leading to lower insurance costs throughout the country. U.S. firms would also expect to offer new insurance products currently unavailable in Cuba. Industry representatives do not expect Cuban banks or insurance firms to export services to, or invest in, the United States. Cuban financial firms have not engaged in significant business outside of Cuba, so the U.S. sanctions have had little direct impact on them.[96]

Construction Services[97]

The U.S. construction services sector is one of the largest and most efficient in the world. In 1998, sector revenues reached $373 billion, compared with $290 billion in 1995, with employment in excess of 6 million. Enjoying a worldwide reputation, the U.S. construction services sector generated cross-border exports of more than $4 billion in 1998, compared with $2.6 billion in 1995. Major markets include Indonesia, the United Kingdom, and China. Cross-border imports amounted to $699 million in 1998, supplied mainly by the EU and Japan.

Decree Law 77 of 1995, which opened Cuba to joint venture operations with foreign investors, was the impetus for construction growth in Cuba (production in the Cuban construction sectors reportedly increased from $880 million to $1.5 billion between 1995 and 1999). In excess of 20 joint ventures are reported between Cuban companies and foreign investors involving office and residential construction.[98] For example, a Canadian firm is involved in the design and construction of many real estate joint ventures, including the new Miramar Trade Center in Havana.[99] Joint venture construction projects have also involved the construction of industrial facilities as well as hotels for the tourism industry, the priority sector for construction expenditures in Cuba.[100] Because construction services in Cuba are provided through

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[96] Industry representatives, telephone interviews with the Commission staff, July and Aug. 2000.

[97] Construction services include pre-erection work; new construction and repair; and alteration, restoration, and maintenance work. Such services may be provided by general contractors, who oversee all construction work for those awarding the contract, or specialty subcontractors who perform discrete sections of the construction.

[98] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 4-28.

[99] Government of Canada, Department of Foreign Affairs and International Trade, *Cuba: A Guide for Canadian Businesses*, 2nd ed., June 1999, p. 27, at *http://www.dfait-maeci.gc.ca/geo/html_documents/cuba-e.htm*, retrieved Apr. 12, 2000, p. 27.

[100] For example, a Spanish firm has established a joint venture with Cuban government-operated Geominera S. A., a subsidiary of the Ministry of Basic Industry, to construct a cement plant valued at $150 million. U.S.-Cuba Trade and Economic Council, Inc., "Economic Eye on Cuba," 17 to 23 July 2000, p. 7.

joint ventures with foreign firms, only the historical and current impacts of sanctions on the U.S. construction sector are discussed.[101]

Historical and Current Impact of Sanctions on the United States

Prior to the imposition of sanctions, the U.S. construction services industry participated in Cuba in the construction of a wide range of infrastructure projects, including water and wastewater and port facilities, power generation facilities, hotels, and other commercial and industrial projects.[102] After sanctions were introduced, U.S. construction firms were replaced mostly by Canadian and European firms, as well as by assistance from Soviet bloc countries. However, although U.S. industry sources were unable to provide specific information on the lost sales, investment, and employment, the historical impact of sanctions on the U.S. construction industry likely was modest, given the relatively small size of the Cuban economy and alternative opportunities for U.S. companies in other parts of Latin America and the Caribbean.[103]

The current impact of sanctions on the U.S. construction industry is minimal. Despite Cuba's high needs for most types of infrastructure,[104] representatives of the U.S. construction industry generally reported little interest in the Cuban market.[105] They are particularly concerned about how Cuba would finance substantial construction projects given the country's severe foreign exchange shortage.[106] Given the substantial amounts of funding required for major construction and infrastructure projects, most developing countries depend on foreign financing, often through loans at concessional rates from international lending organizations, such as the World Bank. Such loans probably would not be available even if sanctions were lifted because Cuba has withdrawn from the IMF and World Bank.[107] Similarly, Cuba would

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[101] Further background on the U.S. and Cuban construction services sectors can be found in Appendix G, tables G-5a through G-5d.

[102] Industry representative, telephone interview by Commission staff, Sept. 19, 2000.

[103] Some limited U.S. involvement in construction has taken place in recent years despite U.S. sanctions. For example, the U.S. Treasury's Office of Foreign Assets Control issued a license to a New Jersey-based construction company for the purpose of remodeling the Embassy of Germany in Havana. The contract was reportedly worth several hundred thousand dollars. U.S.-Cuba Trade and Economic Council, Inc., "Realities of Market Cuba," p. 11, at *http://www.cubatrade.org/market.html*, retrieved May 2, 2000.

[104] According to the Cuban Government, in 1997 135,000 homes and apartments in Havana alone were considered to be nonrepairable or close to collapse. There is also a severe shortage of modern office buildings and a need for new dwellings to accommodate the growing population. Joe Green, Director for Latin American Sales, Caterpillar Incorporated, testimony before the USITC, Sept. 20, 2000, transcript, p. 369; Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), pp. 36-37; Commission staff interview with Cuban-based real estate developer, Havana, July 20, 2000.

[105] Industry representative, telephone interview by Commission staff, Sept. 19, 2000.

[106] Ibid.

[107] Commission staff fieldwork, Havana, Cuba, July 16-23, 2000.

continue to have great difficulty borrowing in international markets owing to its poor credit rating, even in the absence of U.S. sanctions.

In the absence of U.S. sanctions, it is possible that some U.S. construction firms would seek to enter into joint ventures with the Cuban Government similar to those entered into by Canadian and European firms, to the extent that the Cuban Government would approve such operations. The small size and capacity of the Cuban construction services industry make it unlikely that the U.S. construction services industry would face competition from Cuba in the absence of sanctions.

Telecommunication Services[108]

In 1999, the U.S. telecommunication services industry generated revenues of $270 billion. U.S. telecommunication carriers lead the world market in terms of revenue, accounting for 34 percent in 1998. U.S. companies are world leaders in the development and marketing of telecommunication services, and forecasts indicate that U.S. revenue for basic voice and data services are expected to grow by 8 percent annually through 2003. The Cuban telecommunication industry generated revenue of $525 million in 1998,[109] accounting for a tiny portion of world telecommunication revenue. In 1998, Cuba had 3.5 telephone lines per 100 inhabitants, and telecommunication investment totaled $74 million.[110]

Historical and Current Impact of Sanctions on the United States

Although the United States never completely severed telecommunications links with Cuba and a small number of U.S. companies currently provide certain telecommunications services to Cuba, the overall historical impact of sanctions on the U.S. telecommunications services sector is small. Prior to the imposition of sanctions, U.S.-based International Telephone and Telegraph (ITT) owned a controlling share in the Cuban Telephone Company (CUTELCO), and ITT and AT&T jointly owned the Cuban American Telephone and Telegraph Company (CATT), which operated an underwater telecommunication cable between Cuba and Florida. Cuba was

[108] The telecommunication services industry consists of firms engaged in the provision of both basic and value-added services. These services include local exchange, cellular telephony and paging, long distance, and international services, whether provided by wireline or wireless technologies. Value-added services include computer processing, electronic mail, electronic data interchange, electronic funds transfer, enhanced facsimile, and on-line database access.

[109] International Telecommunication Union (ITU), *World Telecommunication Development Report, 1999* (Geneva: ITU, 1999), p. A-57.

[110] Further background on the U.S. and Cuban telecommunications services sectors can be found in Appendix G, tables G-6a through G-6d.

reportedly one of AT&T's top three international markets, which was largely attributed to Cuba's proximity to the United States and the large tourism business that existed before 1960.[111] Cuba expropriated ITT's Cuban assets in August 1960, valued at $133 million,[112] and AT&T purchased ITT's CATT shares in 1964.[113]

After sanctions were imposed, AT&T was allowed to continue carrying calls between the United States and Cuba; and until the early 1990s, AT&T was the only U.S. carrier providing international telecommunication services to Cuba.[114] Until 1987, telecommunication services between the United States and Cuba were provided by the underwater cable, which had 130 telephone circuits and a radio telephony transmission system. When the cable system became inoperable in 1987, only the radio telephony system, with a maximum capacity of 79 simultaneous telephone calls,[115] was available. As a result of the capacity constraints, calls to Cuba that originated in the United States were seldom successful.[116] U.S. sanctions prohibited AT&T from upgrading its existing technology or expanding the number of telephony circuits. AT&T also was prohibited from making payments to Cuba, and Cuba's share of revenues was deposited in an escrow account.[117]

Several Canadian telecommunication companies with direct dial access to Cuba began to offer service in 1992. Calls originating in the United States were routed through Canadian satellite systems and terminated in Cuba. The service satisfied some of the demand for phone service to Cuba, but reportedly resulted in lost revenue to AT&T and increased tension between the U.S. and Cuban Governments.[118]

The Cuban Democracy Act of 1994 authorized the re-establishment of direct-dial international calls between the United States and Cuba and permitted payments to Cuba for its share of the service.[119] Since 1994, the FCC has authorized five carriers to provide voice and leased private-line services to Cuba: WilTel, MCI, LDDS Communications, Sprint, and IDB Communications Group.[120] The FCC also authorized an increase in the number of available direct-dial circuits to Cuba, bringing

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[111] Industry representative, telephone interview with the Commission staff, Oct. 10, 2000.

[112] John Nichols and Alicia Torres, "Telecommunications in Cuba," at *http://www.vii.org/papers/cuba.htm*, retrieved Oct. 5, 2000.

[113] Industry sources and Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 141.

[114] Larry Press, *Cuban Telecommunications, Computer Networking, and U.S. Policy Implications*, RAND Corporation, Report No. DRU-1330-1-OSD, July 1996, p.3.

[115] By comparison, Dominican Republic, a Caribbean country with less than half the population of Cuba, had approximately 1,000 circuits to handle a much lower call volume from the United States.

[116] In 1991 the Federal Communications Commission (FCC) estimated that less than 1 percent of the 60 million attempted calls were completed. FCC, *Common Carrier Action*, Report No. CC-588, Oct. 5, 1994.

[117] Some observers estimate that the amount in the escrow account may total $65 million to $130 million. See note 112.

[118] Ibid.

[119] Ibid.

[120] WilTel, IDB, and LDDS subsequently merged to form WorldCom, which acquired MCI in 1997.

the total number of circuits to 1,020,[121] and AT&T has since expanded its service to approximately 10,000 calls per day. With the re-establishment of direct-dial international service between the United States and Cuba, annual gross revenues to U.S.-based telecommunication service providers have increased from approximately $10 million in 1993 to $128 million in 1998.[122] In addition, in 1999, the FCC allowed Sprint Communications Company to use one additional digital satellite circuit between Cuba and the United States.[123]

According to U.S. telecommunication service providers, the current impact of sanctions is the loss of business opportunities in Cuba.[124] Prior to the imposition of sanctions, U.S. investors reportedly controlled more than one-third of the country's public utilities, dominating domestic and international telecommunications.[125] If sanctions had not been imposed, the presence of U.S. firms would likely have continued, potentially limiting the participation of European and Mexican telecommunication firms in Cuba. The current participation of European and Mexican firms in the Cuban market may limit the future participation of U.S. firms in the absence of U.S. sanctions.

In the absence of sanctions, U.S. telecommunication providers would probably attempt to increase their participation in the Cuban telecommunication market.[126] One survey respondent indicated that the immediate effect of re-establishing trade relations would be increased call volume between the United States and Cuba. Infrastructure investment would probably increase in an attempt to further develop the market, although U.S. telecommunication equipment providers would likely not benefit substantially from Cuba's need to replace out-dated equipment and technology (see Electronics Goods, chapter 6). In addition to infrastructure investment, there would probably be a demand for private line services between U.S.-based companies and their affiliates in Cuba. Such developments would probably have a positive impact on U.S.-based carriers' revenues from Cuba, as call completion rates would improve and call volume would increase.[127]

Historical and Current Impact of Sanctions on Cuba

U.S. economic sanctions have adversely affected the development of Cuba's telecommunication industry. Without access to U.S. products, Cuba's telecommunication development was largely dependent on Soviet economic assistance.[128] When the Soviet Union collapsed in the early 1990s, Cuba's

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[121] U.S.-Cuba Trade and Economic Council, *2000 Commercial Highlights*, at *http://www.cubatrade.org/2000hlights.html*, retrieved Aug. 16, 2000.

[122] U.S.-Cuba Trade and Economic Council, *1999 Commercial Highlights*, at *http://www.cubatrade.org/99hlights.html*, retrieved June 9, 2000.

[123] See note 121.

[124] See note 112.

[125] Ibid.

[126] Industry representative, telephone interview with the Commission staff, Aug. 9, 2000.

[127] Ibid.

[128] Despite Soviet economic assistance, Cuba's telecommunication infrastructure was below the standard of many developing countries. Historically, the country has had fewer telephone lines as a proportion of population than any other Caribbean nation except Haiti. Larry Press, "Cuban Telecommunications, Computer Networking, and U.S. Policy Implications," RAND Corporation, Report No. DRU-1330-1-OSD, July 1996, p. 6.

telecommunication system fell into disrepair. Problems such as frequent interruptions in service, long delays in repairs and installations, network congestion, dialing difficulties, and scarcity of functioning public telephones became more common.[129] Lack of replacement parts resulted in a mixture of incompatible equipment imported from a variety of countries, including the United States (dating back to the 1950s) and Russia.

In 1994, Cuba's Empresa de Telecomunicaciones de Cuba (ETECSA) entered into a joint venture agreement with Grupo Domos, a Mexican holding company, in an effort to attract investment and improve capacity constraints.[130] Domos originally purchased 49 percent of ETECSA for $1.5 billion, including $200 million to $300 million of debt forgiveness,[131] but soon divested its interest in the company after Domos was unable to secure additional financing to upgrade ETECSA's network.[132] Domos was also targeted by the 1996 Cuban Liberty and Democratic Solidarity Act[133] and its executives were barred entry into the United States.[134] STET International Netherlands (a subsidiary of Telecom Italia S.p.A.) now owns 29 percent of ETECSA,[135] and the Cuban Government, through the Ministry of Communications, owns the remaining 71 percent of the company in a 12-year exclusive agreement to provide basic telecommunications service in Cuba. This agreement could potentially exclude U.S. firms from the Cuba market in the absence of sanctions.[136]

Wireless telecommunication services are provided by Telefonos Celulares de Cuba (Cubacel), which has a 20-year exclusive contract to provide analog and digital cellular services throughout Cuba. Sheritt International, a Canadian holding company, purchased 37.5 percent of Cubacel in 1998. Cubacel's exclusive contract would prohibit the U.S. provision of analog and digital service in Cuba in the absence of U.S. sanctions.

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[129] John Nichols and Alicia Torres, "Telecommunications in Cuba," at *http://www.vii.org/papers/cuba.htm*, retrieved Oct. 5, 2000.

[130] ETECSA was the first major joint venture between a foreign company and the Cuban Government. Initial terms of the venture called for the installation of a million new phone lines, with the ultimate goal of having 11 lines per 100 people by 2004. Larry Press, "Cuban Telecommunication Infrastructure and Investment," *Cuba in Transition–Volume 6*, (Washington: Association for the Study of the Cuban Economy, 1996), pp. 145-154.

[131] Dr. Jaime Suchlicki, *Cuba Transition Project: Cuban Industry Review* (Arlington: U.S.-Cuba Business Council, 1998), p. 37; Larry Press, "Cuban Telecommunication Infrastructure and Investment," *Cuba in Transition–Volume 6*, (Washington: Association for the Study of the Cuban Economy, 1996), pp. 149-51.

[132] Maria C Werlau, "Update on Foreign Investment in Cuba:1996-97," *Cuba in Transition–Volume 7*, (Washington: Association for the Study of the Cuban Economy, 1997), pp. 72-98.

[133] The Cuban Liberty and Democracy Solidarity Act is discussed in greater detail in chapter 2.

[134] Government of Canada, Department of Foreign Affairs and International Trade, *Cuba: A Guide for Canadian Businesses*, 2nd ed., June 1999, p. 41, at *http://www.dfait-maeci.gc.ca/geo/html_documents/cuba-e.htm*, retrieved Apr. 12, 2000.

[135] In July 1997, STET agreed to pay ITT approximately $25 million for a 10-year right to use telephone facilities and equipment in Cuba on which ITT has a certified U.S. claim for expropriation without compensation (see above). U.S.-Cuba Trade and Economic Council, Inc., "U.S. Companies May Settle Claims with Payments, Equities," *Economic Eye on Cuba*, Dec. 4-10, 2000, p. 3.

[136] USITC staff interview with ETECSA officials, July 21, 2000, Havana.

Demand for telecommunication services in Cuba is rising and probably would rise at a faster rate in the absence of U.S. sanctions.[137] For example, industry representatives indicate that call volume between Cuba and the United States would probably increase, as international calling prices were reduced and economic conditions in Cuba improved.[138] Infrastructure investment would probably increase, and ETECSA is likely to continue its modernization efforts, possibly seeking new equity partners to supply additional equipment and service. In addition to basic communication equipment, network investment would probably create demand for network routers and switches (see Electronics Goods, chapter 6).[139] Such investments would probably improve U.S. carriers' ability to provide telecommunication services in Cuba. Infrastructure improvements would also ease the current constraints of Cuba's telecommunications sector, probably improving Cuba's ability to attract foreign investment in other sectors.

In the absence of U.S. sanctions, analysis by the Commission suggests that U.S. calls to Cuba are likely to increase to 160 million minutes, an increase of 40 million minutes annually. Cuban calls to the United States are likely to increase to 3.4 million minutes, an increase of 1.3 million minutes annually. Based on the current settlement payment of 60 cents a minute for calls originating in the United States, increased calling volumes of these magnitudes would result in additional revenues for Cuba ranging between $15 million and $30 million annually.[140]

Travel and Tourism Services[141]

The United States is the world's foremost recipient of travel receipts from nonresident visitors. In recent years, the United States has recorded surpluses amounting to at least $14 billion per year in the travel account of the balance of payments, which has contributed significantly to U.S. surpluses in trade in services. Meanwhile, sustained economic growth in the United States has encouraged U.S. residents to increase travel both domestically and abroad, which has helped finance expansion of the highly competitive U.S. travel industry, especially in foreign markets.

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[137] Larry Press, "Cuban Telecommunication Infrastructure and Investment,"*Cuba in Transition–Volume 6*, (Washington: Association for the Study of the Cuban Economy, 1996), pp. 149-51.

[138] Industry representative, telephone interview with the Commission staff, Aug. 9, 2000.

[139] See note 136.

[140] Estimates are based on the Commission gravity model described in Appendix F. The estimated revenue gain for Cuba is based on the current settlement fee of 60 cents a minute for calls between the United States and Cuba.

[141] Trade in travel and tourism services encompasses expenditures made by travelers while in another country, such as for lodging and meals. Expenditures in the United States by foreign visitors are counted in the current account of the U.S. balance of payments as U.S. cross-border exports, while expenditures abroad by travelers from the United States are U.S. cross-border imports. Although passenger fares may be considered a component of travel and tourism revenues, such fares fall outside the scope of this discussion and are addressed in the discussions of air transport services and maritime services.

According to the Cuban Government, the number of travelers to Cuba increased from 746,000 in 1995 to 1.6 million in 1999. Cuba ranks among the world's fastest growing travel markets in recent years as an inexpensive destination, despite U.S. economic sanctions limiting unlicensed travel-related expenditures by U.S. citizens. Nevertheless, Cuba's travel and tourism industry is underdeveloped, having suffered until the 1990s from decades of neglect and currently relies on foreign investment for capital, management, equipment, and supplies.[142]

Historical and Current Impact of Sanctions on the United States

The historical impact of sanctions was cessation of U.S. investment, followed by decades of investment in and trade with alternative Caribbean destinations, and the bypassing by U.S. tourists of the rapidly developing Cuban tourism market. The historical impact of sanctions on the U.S. tourism industry regarding travel into the United States by Cubans has been minimal, as only a small percentage of the Cuban population of 11 million is authorized and financially able to travel abroad.

U.S. firms invested in and operated Cuban hotels and their on-site casinos under long-term contracts during the 1950s. U.S. hotel firms attracted high-paying U.S. travelers able to patronize Cuban hotels and casinos in which U.S. firms held a financial interest. An estimated 85 percent of approximately 350,000 visitors to Cuba annually in the late 1950s came from the United States. At the time, Cuba ranked as the largest tourism market in the Caribbean.[143] In 1956, expenditures by U.S. visitors to Cuba were estimated at $30 million, and forecasts at that time were for expenditures to reach $6 billion annually by 1964.[144]

The flow of U.S. travelers and travel investments into Cuba stopped following the imposition of sanctions in the early 1960s, although the volume of U.S. tourists in Cuba had significantly declined by 1958 as a result of political unrest in that country.[145] By the time Cuba had nationalized all U.S. property in October 1960, Cuba was no longer a viable destination for U.S. tourists, who instead turned to Puerto Rico, the Bahamas, and eventually Mexico[146] and elsewhere in the Caribbean.

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[142] Further background on the U.S. and Cuban travel and tourism services sectors can be found in Appendix G, tables G-7a through G-7d.

[143] Arthur Andersen, "Cuba - Tourism as a Replacement Industry," Spring 1996, at *http://www.hotel-online.com/neo/trends/andersen*, retrieved June 30, 2000.

[144] Rosalie Schwartz, *Pleasure Island: Tourism and Temptation in Cuba* (Lincoln, NB, and London: University of Nebraska Press, 1997), p. 198.

[145] Tourism revenues fell by about 80 percent in the 12 months ending November 30, 1959.

[146] In 1998, more than 18 million U.S. travelers visited Mexico and during 1988-98 U.S. travel to Mexico increased in 8 of the 11 years. In 1999, 62 percent of approximately 3 million visitors to Cancun, Mexico, were from the United States. Nicholas Crespo and Charles Suddaby, "A Comparison of Cuba's Tourism Industry with the Dominican Republic and Cancun for the Period 1989-99," *Cuba in Transition–Volume 10*, (Washington: Association for the Study of the Cuban Economy, 2000).

U.S. sanctions currently have a small to negligible impact on the U.S. travel and tourism services industry.[147] The Office of Foreign Assets Control (OFAC) of the U.S. Department of the Treasury indicated that 82,000 OFAC-authorized U.S. residents traveled to Cuba in 1999 under a special license.[148] An unknown number of additional licensed and unlicensed U.S. residents also travel to Cuba annually.[149] Commission staff estimate that an additional 100,000 to 350,000 U.S. residents annually may be expected to travel primarily as tourists to Cuba in the absence of sanctions.[150] Such travel could result in U.S. payments to Cuba, not including passenger fares, of $90 million to $315 million annually. These estimates reflect that the Cuban Government is not likely to grant visas in large numbers to U.S. residents with family ties to Cuba, because the Government could receive higher revenues and returns on investments from expenditures by tourists.

U.S. travel agencies would probably be among the first to see an impact, as they could derive new revenues from air, cruise, and accommodation sources as travel to Cuba from the United States increases.[151] Industry sources indicate that in the absence of sanctions, the approximately 120 OFAC-licensed agencies[152] and many additional travel agencies would work with Cuban travel firms in an effort to meet anticipated demand by prospective U.S. travelers.[153] Such arrangements would not require U.S. travel agencies to make substantial foreign investments, at least not initially. Noting the propensity of U.S. travelers to seek varied locations and activities, U.S. industry representatives indicate that Cuba could be included among several Caribbean islands in numerous vacation travel packages arranged by U.S., Cuban, and other travel entities. The U.S. travel agent industry anticipates that demand for travel to Cuba by U.S. residents could be substantial,[154] although travel agents interviewed anticipate such higher demand is likely to be generated mainly by U.S. residents seeking family visits in Cuba.[155]

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[147] Thomas E. Cox, Director, U.S.-Cuba Business Council, testimony before the USITC, Sept. 19, 2000, transcript, p. 164.

[148] OFAC official, telephone interview by the Commission staff, Aug. 25, 2000. OFAC issues special licenses for travel to Cuba to several categories of persons covered under U.S. law. A feature common to all such licenses is that travel to Cuba must be by regularly scheduled charter flights departing from Miami, New York, and Los Angeles. OFAC also issues general licenses for travel to Cuba that do not require travelers to use chartered air carriers or to depart from particular locations.

[149] The full scope of travel to Cuba by U.S. residents is not reported in official U.S. Government statistics.

[150] Several sources estimated that a million U.S. travelers could visit Cuba annually in the absence of sanctions, while other projections range from substantially less than 1 million up to 6 million. Cuban Government officials estimate that by 2010 as many as 12 million tourists would visit Cuba annually if trade relations were re-established. Paula Stern, The Stern Group, Inc., testimony before the USITC, Sept. 19, 2000, transcript, p. 211; Julia Sagebien and Ramon Coto-Ojeda, "Pirates or Partners? Cuba-Puerto Rico Commercial Relations in a Post-Embargo Scenario," *Cuba in Transition–Volume 9*, (Washington: Association for the Study of the Cuban Economy, 1999), pp. 79-95; and Commission staff interview with Cuban Ministry of Tourism officials, Havana, July 20, 2000.

[151] Industry representative, telephone interview by the Commission staff, Aug. 23, 2000.

[152] In addition to licensing U.S. residents for travel to Cuba, OFAC also licenses U.S. firms (chiefly travel agents) seeking to arrange OFAC-authorized travel to, from, or within Cuba by persons under U.S. law. OFAC official, telephone interview by the Commission staff, Aug. 25, 2000.

[153] See note 150.

[154] American Society of Travel Agents, posthearing statement, submitted to the USITC, Oct. 3, 2000.

[155] See note 150.

The potential impact is of considerable concern to Puerto Rico's public and private sectors[156] in view of Cuba's recent fast growth as a Caribbean tourism destination even without large representation from U.S. travelers.[157] Nevertheless, the anticipated increase in Cuba-bound tourism could benefit Puerto Rico as well, by increasing opportunities for introducing extended-day, multiple-island destination packages similar to those developed for the European holiday market.[158]

Historical and Current Impact of Sanctions on Cuba

Historically, the impact of sanctions on Cuba varied considerably. Mostly, U.S. travelers' expenditures in Cuba declined significantly as a consequence of Cuban political unrest before U.S. sanctions were imposed. From the time sanctions were introduced until the late 1980s, the Cuban Government had difficulty with international tourism.[159] From the 1960s through most of the 1980s, Cuba relied on Soviet bloc economic assistance and did not assign a high priority to maintaining or developing the tourism industry. Tourism has emerged as Cuba's leading source of foreign exchange earnings since the loss of Soviet economic assistance. Since the 1990s, the Cuban Government allocated major portions of labor, capital, and commodities, such as cement, to the tourism sector. Tourism generates an estimated 65,000 jobs in Cuba through direct employment, and as many as 250,000 jobs indirectly.[160]

Other major initiatives to bolster the sector included establishing state-owned tourist enterprises and a separate Ministry of Tourism, and encouraging joint ventures with foreign corporations. Today Cubanacán (a Cuban government-owned tourism corporation) owns close to 50 hotels in association with numerous foreign consortia including Groupo Sol Meliá (Spain), Tryp (Spain), LTI (Germany),[161] Golden Tulip (the

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[156] Senator Kenneth McClintock, Past Chairman, Council of State Governments and Chair of the Government and Federal Affairs Committee of the Puerto Rico Senate, written submission to the USITC, received Sept. 19, 2000, and testimony before the USITC, Sept. 19, 2000, transcript, p. 47.

[157] Julia Sagebien and Ramon Coto-Ojeda, "Pirates or Partners? Cuba-Puerto Rico Commercial Relations in a Post-Embargo Scenario," *Cuba in Transition–Volume 9*, (Washington: Association for the Study of the Cuban Economy, 1999), pp. 79-95.

[158] Ibid.

[159] Upon gaining control of the Cuban Government in 1959, the Castro regime is believed to have initially tried to bolster tourism, hosting the American Society of Travel Agents' (ASTA) world congress of 2,000 delegates in Havana in Oct. 1959. ASTA representative, telephone interview by the Commission staff, Aug. 23, 2000. The new Cuban government had assumed a stake in tourism financing, as some of the new hotels were owned by Cuban workers' pension funds, and the previous government's guaranteed bonds had backed loans to hotel enterprises by the pension funds and other Cuban entities. Nevertheless, hotels and casinos in Cuba, facing declining patronage, were unable to repay debts, fell into bankruptcy, and were confiscated by the Government. Rosalie Schwartz, *Pleasure Island: Tourism and Temptation in Cuba* (Lincoln, NB, and London: University of Nebraska Press, 1997), pp. 201-03.

[160] Economic Commission for Latin America and the Caribbean (ECLAC), *La Economía Cubana: Reformas estructurales y desempeño en los noventa*, (Mexico City: United Nations, 1997), p. 167.

[161] Sol Meliá acquired Tryp in 2000. Certain U.S. citizens reportedly claim to have owned 100,000 acres in Cuba on which Sol Meliá, LTI, and Super Clubs have built hotels, and have sought to have title IV of the Helms-Burton Act (discussed in more detail in chapter 2) enforced with respect to this matter. U.S.-Cuba Trade and Economic Council, Inc., "U.S. Companies May Settle Claims with Payments, Equities," *Economic Eye on Cuba*, Dec. 4-10, 2000, p. 4.

Netherlands), and Super Clubs (Jamaica). In 1994, foreign investment in Cuba's hotels and resorts reportedly amounted to $500 million.[162] Several U.S. hotel companies reportedly plan to invest in Cuba in the absence of sanctions.[163]

Despite U.S. sanctions, Cuba reportedly has outperformed the majority of other Caribbean destinations in terms of rate of growth in visitor arrivals in recent years.[164] The U.S. market represents the single largest source of travelers to the Caribbean region. The current impact of sanctions is substantial and Cuba's travel and tourism services exports most probably would benefit in the absence of U.S. sanctions. Cuba also would likely face lower costs of imported products used in the tourism sector in the absence of sanctions, as Cuba would import these products from the United States instead of from Canada, the EU, and elsewhere.[165]

Cuban officials report that in the absence of sanctions, Cuba could experience a surge in visitors, increasing the total number of tourists within a decade to 5 million to 7 million annually.[166] Some U.S. sources estimate that Cuba's need for additional hotel rooms could increase by more than 90 percent within 4 years, and by more than 100 percent within an additional 4 years.[167] However, some analysts believe Cuba lacks a sufficient supply of high quality hotels, despite foreign participation, and both construction and renovation are reportedly running behind national targets.[168] It is not likely that the Government's plans to complete one new large hotel per year will be met.[169] Currently, Cuban and U.S. sources agree that construction performance has not been able to match the need for hotel expansion, despite the Government's provision of construction resources to the tourism industry.

In addition to tourism infrastructure, several analysts have reported that the quality of service available in Cuban hotels is likely to improve in the absence of sanctions. It has been reported that the quality of some existing luxury-rated hotels, especially those outside the principal tourist areas of Havana and Varadero, do not meet current visitor expectations,[170] and that hotel properties vary considerably in quality, even among properties assigned the equivalent quality rating. Likewise, services supporting hotels

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[162] See note 159.

[163] See note 156.

[164] Nicholas Crespo and Charles Suddaby, "A Comparison of Cuba's Tourism Industry with the Dominican Republic and Cancun for the Period 1989-99," *Cuba in Transition–Volume 10*, (Washington: Association for the Study of the Cuban Economy, 2000).

[165] Commission staff interview with manager of Habana Libre hotel, Havana, July 19, 2000, and with manager of Sol Meliá hotel, Varadero, July 22, 2000.

[166] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 2-3.

[167] Charles Suddaby, "Cuba's Tourism Industry,"*Cuba in Transition–Volume 7*, (Washington: Association for the Study of the Cuban Economy, 1997), p. 123-30.

[168] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 2-3.

[169] Ibid., p. 2-4.

[170] Ibid.

in Cuba, such as water and sewage, electricity, and catering, are criticized.[171] According to some analysts, continued growth in revenues from tourism in Cuba could suffer from long years of delivering poor service to mostly budget-value travelers.[172] Such observations may explain why the incidence of repeat visitors to Cuba, about 10 percent, is below that of other Caribbean destinations.

[171] Commission staff interview with manager of Habana Libre hotel, Havana, July 19, 2000.

[172] Nicholas Crespo and Charles Suddaby, "A Comparison of Cuba's Tourism Industry with the Dominican Republic and Cancun for the Period 1989-99," *Cuba in Transition–Volume 10*, (Washington: Association for the Study of the Cuban Economy, 2000).

CHAPTER 5
Economic Impact on Agriculture

Introduction

The agricultural sector[1] plays a crucial role in the U.S. economy.[2] In 1999, output of the sector reached $1.5 trillion, representing about 16 percent of the country's total GDP. The sector generated $55 billion in exports in 1999, compared to $37 billion in imports, and thus made a positive contribution to the balance of trade. In 1999, the agricultural sector employed about 25 million, roughly 17 percent of the labor force. With declining U.S. farm prices and incomes in the late 1990s, the agricultural sector has increasingly been looking to exports for increased sales. As a result, many farm interest groups, led by the American Farm Bureau Federation, have been strong advocates of lifting U.S. unilateral trade sanctions.

In this chapter, the historical and current impacts of U.S. economic sanctions with respect to Cuba are discussed for several agricultural commodities and seafood. The historical impact of sanctions is discussed mainly in terms of trade and investment opportunities that were lost by the two countries from the early 1960s to the present, while the current impact is analyzed in terms of trading and investment opportunities that would be gained by the two countries in the absence of sanctions. As in the services sector, in analyzing the current impact of sanctions, only the impact of lifting sanctions is considered and all other factors are assumed to remain unchanged. In particular, the analysis assumes that the current political system remains the same, that no changes are made to Cuban economic policies, and that under these conditions, even with sanctions lifted, Cuba experiences few, if any, changes in economic trends.

Given that economic relations with Cuba have been nonexistent since the early 1960s, and that no U.S.-Cuba trade in agricultural products has taken place since then, the analysis of the impact of removing U.S. sanctions on Cuba relied on estimating expected trade flows for selected agricultural products had there been no sanctions. The selection of products was based on several factors. Generally, commodities are included if:

- trade between the two countries prior to the imposition of sanctions, especially in the late 1950s, was significant;

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[1] The agricultural sector covers the entire food and fiber system, and includes farming production and inputs, food manufacturing and processing, distribution (transportation, wholesaling, and retailing), and foodservice.

[2] Information on the role of the agricultural sector in the U.S. economy is taken from, U.S. Department of Agriculture (USDA), Economic Research Service (ERS), *The Food and Fiber System: Contributing to the U.S. and World Economies*, by Kathryn L. Lipton, William Edmondson, and Alden Manchester, ERS Bulletin No. 742, July 1998. 1999 data were provided by authors to Commission staff.

- the United States is internationally competitive and a significant exporting country to world markets, especially the Caribbean;
- Cuba is a significant importer from world markets, especially Canada and Europe; and
- U.S. industry leaders and representatives have argued that trade would be significant in the absence of sanctions.

Using these criteria, commodities covered include meat and dairy, grains for human and animal consumption, dry beans, fats and oils, and cotton. Also included in this chapter are products in which Cuba is internationally competitive and is a significant exporting country to world markets, especially to Canada and Europe. Commodities selected based on these criteria include sugar, fruit and vegetables, cigars, distilled spirits, and seafood.

Each commodity analysis estimates U.S.-Cuban bilateral trade in the absence of sanctions, based on Cuba's average annual trade during 1996-98, assuming no economic policy and political changes in Cuba. In a few cases, other estimates of U.S.-Cuban trade—based on an array of assumptions about economic growth and future management of the Cuban economy, as well as availability of foreign capital—were made available to Commission staff and also are reported.

As indicated in chapter 1, the background information and analysis presented in this chapter, as well as estimates of U.S.-Cuba trade in the absence of sanctions, are based on several sources, including academic reports and industry publications, government trade statistics, interviews with industry representatives, the results of the Commission telephone survey of U.S. companies and trade associations, hearing testimony and written submissions, and Commission staff travel within the United States and Cuba.

Meat[3] and Dairy

In 1999, the value of U.S. meat and dairy production reached $84 billion, almost half of all receipts from farming, with cattle accounting for $37 billion, pork $9 billion, chicken $15 billion, and dairy $23 billion. The United States is a major participant in world markets for meat. In 1999, U.S. beef exports reached almost $3 billion (20 percent of world beef exports by quantity), consisting mainly of grain-fed beef to Canada, Japan, Mexico, and Korea. The United States also imported about $2 billion of mostly grass-fed beef from Canada, Australia, New Zealand, and South America in 1999. Annual U.S. pork and chicken exports were valued at $1 billion and $2 billion, respectively, during 1995-99, making the United States the world's largest exporting country of both of these products. Major markets for U.S. pork and poultry include Japan, Mexico, and Russia. In contrast, U.S. dairy exports represent less than 1 percent of domestic production, and with the exception of nonfat dry milk, the United States is not a major world exporter of dairy products.

[3] For the purposes of this report, meat covers beef, pork, and chicken.

The Cuban Government made significant investments in the meat and dairy sectors in the 1960s and 1970s, and as a result, production increased rapidly. Economic assistance from the Soviet Union was a significant positive factor during this period, especially Soviet concessions on feedgrains. Production in these sectors declined significantly after Soviet support was phased out in the late 1980s.[4] Cuban meat and dairy production has been geared to serving the domestic market, and exports of these products during 1995-99 were negligible. Cuba also imports certain meat and dairy products largely to service the tourism sector. Although Cuban imports of beef were very small in recent years, pork and poultry imports have increased, reaching 10,000 metric tons and 32,000 metric tons, respectively, in 1998 (representing 12 percent and 32 percent, respectively, of domestic consumption of these products), mainly from Canada, Mexico, and the European Union (EU). Cuba imported about $45 million in dairy products in 1998, consisting mostly of milk powder (75 percent) and cheese (15 percent), from the EU and New Zealand.[5]

Historical and Current Impact of Sanctions on the United States

Overall, the historical impact of sanctions on the U.S. meat and dairy sectors in terms of production, revenues, costs, and employment was small because the Cuban market for these products was small relative to other markets supplied by U.S. exporters, and because U.S. exporters found alternative markets relatively quickly and easily.[6] For example, Cuba accounted for less than 1 percent of annual U.S. beef exports in the years immediately prior to the imposition of sanctions (about $200,000).[7] Although Cuba accounted for more than half of U.S. pork exports in most years during 1956-59, annual exports were valued at $11 million or less; U.S. exports of chicken to Cuba accounted for less than 0.5 percent ($200,000) of total U.S. exports in the late 1950s.[8]

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[4] Chicken production which had increased from 29,000 metric tons in 1958 to almost 118,000 metric tons in 1989, declined to 51,000 metric tons in 1993. Similar trends were experienced in beef, pork, and milk production. Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 3-21.

[5] Further background on the U.S. and Cuban meat and dairy sectors can be found in Appendix G, tables G-8 through G-11.

[6] Chuck Lambert, Chief Economist, National Cattlemen's Beef Association (NCBA), response to USITC survey, July 13, 2000.

[7] USDA, Foreign Agricultural Service (FAS), *Foreign Agricultural Statistics of the United States*, various issues.

[8] Ibid. According to industry representatives, U.S. investments in Cuban cattle ranches were taken over by the Cuban Government in the early 1960s. For example, the U.S.-based meat packing and processing companies, King Ranch, Inc., and Armour & Company (now part of ConAgra, Inc.) have expropriation claims for $3.2 million and $2 million, respectively. Matias F. Travesio-Diaz, "Alternative Remedies in a Negotiated Settlement of U.S. Nationals' Expropriation Claims Against Cuba," Appendix A: "U.S. Expropriation Claims Against Cuba with Certified Amounts in Excess of $1 million;" *University of Pennsylvania, Journal of International Economic Law*, vol. 17, no. 2, 1996.

U.S. firms would probably export meat and dairy products to Cuba in the absence of sanctions. However, the Cuba market would remain small, especially in the short term. Growth of U.S. exports over the longer term will be highly dependent on the growth of the Cuban tourism sector.[9] In the absence of U.S. sanctions, the Commission estimates that U.S. exports of beef, pork, and chicken to Cuba would total $62 million to $76 million annually, accounting for 65 to 80 percent of total Cuban imports of these products.[10]

Although the Cuban import market for beef has been small in recent years ($800,000 annually during 1994-98), the National Cattlemen's Beef Association (NCBA) estimates that in the absence of sanctions, U.S. beef exports to Cuba could total $20 million to $50 million annually, primarily to supply the Cuban tourism sector. The NCBA also indicated that there may be some sales of edible offal to the domestic Cuban market, and possibly sales of beef for consumption by Cubans outside the tourism sector when the Cuban economy and disposable income increase.[11] Industry observers note that Cuban Government policies, such as limited support for genetic improvement and minimal research and development, limit the domestic production of beef, thus providing opportunities for exporters.[12] U.S. competitors in the Cuban market are likely to be Canada, the EU, Argentina and Mexico.[13] In addition to trade, the NCBA reports that U.S. meat packers might be interested in investing in retail and wholesale meat distribution facilities in Cuba.[14]

The National Pork Producers' Council (NPPC) reported that Cuba probably would become an important market for U.S. pork in the absence of sanctions.[15] Currently, Cuba imports $10 million of pork annually from Canada, Mexico, and the EU.[16] U.S. industry representatives report that the United States would be able to take over the majority of this market, and Cuba could be a key export market for U.S. pork, perhaps as large as Mexico (annual U.S. pork exports to Mexico have been close to $50 million in recent years).[17]

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[9] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

[10] This estimate includes fresh, chilled, and frozen meat, as well as processed and prepared meat products, and is based on the value of reported Cuban imports during 1996-98 and the share of selected foreign markets supplied by the United States and competing countries. It assumes U.S. exporters face the same tariff (40 percent ad valorem) as other countries supplying the Cuban market.

[11] Chuck Lambert, Chief Economist, National Cattlemen's Beef Association (NCBA), response to USITC survey, July 13, 2000.

[12] James E. Ross, "Cuba's Policies Place Limits on Beef Production," International Agriculture Trade and Development Center, Institute of Food and Agriculture Services, University of Florida, *Feedstuffs*, Oct. 2, 2000, p. 5.

[13] See note 11.

[14] Ibid.

[15] NPPC, press release "Cuba sanctions penalizing U.S. pork producers," June 9, 2000.

[16] Ibid.

[17] Alan Tank, President and CEO, at conference, "The Domestic Impact of U.S. Unilateral Food and Medical Sanctions: Case Study of Cuba," World Policy Institute, June 15, 2000.

The USA Poultry and Egg Export Council (USAPEEC) noted "strong interest in opening and developing the Cuban market" in the absence of U.S. sanctions.[18] Cuban imports of chicken were valued at between $17 million and $24 million annually during 1994-98. U.S. exports are likely to be highly competitive in Cuba in the absence of sanctions, although they would face strong competition from Brazil, one of the most efficient poultry-producing countries in the world.[19] U.S. product would also face stiff competition from EU poultry which benefits from government assistance.[20] According to the USDA, there is significant growth potential of U.S. poultry exports to Cuba, with U.S. exports possibly reaching $100 million annually over the long term in the absence of sanctions.[21]

Cuba imported nearly $33 million in milk powder in 1998. However, in the absence of sanctions the United States probably would not compete with the EU and New Zealand in this market. This is because U.S. milk powder exports are heavily dependent on government assistance through the Dairy Export Incentive Program, which is increasingly constrained by U.S. commitments under the WTO Agreement on Agriculture.[22] However, industry representatives see potential opportunities to export certain high-valued dairy products, such as cheese, yogurt, ice cream, and fresh and condensed milk, for the rapidly developing tourist sector. A major U.S. dairy company also indicated that it would serve the Cuban market from plant locations in Miami with fresh dairy products.[23] In the absence of sanctions, the Commission estimates that U.S. exports of dairy products to Cuba would total $4 million to $12 million annually, based on 1996-98 trade data, representing 5 to 15 percent of the Cuban market. The USDA estimates that U.S. exports of dairy products to Cuba in the near term would be $10 million to $15 million annually in the absence of sanctions (more detailed information about the basis for this estimate or underlying assumptions was not provided), possibly growing to $50 million to $60 million in the longer term (3 to 5 years).[24]

Historical and Current Impact of Sanctions on Cuba

The historical impact of U.S. sanctions on Cuba's meat and dairy sectors has been small in terms of Cuban production, costs, and employment, because after sanctions

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[18] James Sumner, President, USAPEEC, in telephone conversation with Commission staff, July 28, 2000.

[19] USITC, Industry and Trade Summary, *Poultry*, USITC Publication 3148, Dec. 1998, table A-4, p. A-4.

[20] Ibid.

[21] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000. The submission gives no indication of the time period over which the long-term impacts would take place.

[22] Commission staff telephone conservation with dairy industry representative, Oct. 16, 2000.

[23] Response to USITC telephone survey, April 1998.

[24] See note 21. The submission gave no indication of what rate of economic growth was assumed.

were imposed Cuba found alternate suppliers, including Canada (beef and pork), the EU (chicken and dairy), and Brazil (chicken). However, these alternate suppliers resulted in a small increase in Cuba's import costs because the United States is cost competitive in the production of grain-fed beef, as well as pork and chicken. Also, the United States is geographically closer than alternate suppliers, giving it a substantial transportation cost advantage. U.S. sanctions may have had a somewhat greater adverse impact on Cuba after the loss of the Soviet economic assistance in the 1990s. In the absence of sanctions Cuba might have purchased limited quantities of U.S. feedgrains at lower cost than from other countries supplying the Cuban market, thereby ameliorating the decline in the Cuban livestock sector.

Wheat

The United States is the world's second leading producer and leading exporter of wheat, with annual U.S. production of $9 billion (at the farm level) during 1995-99. U.S. exports of wheat amounted to $3.6 billion in 1999, when Egypt, Japan, and the Philippines were the top three markets. The U.S. wheat sector has historically been very export dependent, with the share of U.S. production exported averaging between 42 and 68 percent annually during 1995-99. The U.S. competitiveness in world markets is based on several factors, including low-cost production, highly efficient transportation and handling, and government export assistance programs.

Cuba does not grow any wheat, but does have a sizable and relatively modern wheat milling industry, with state-of-the-art European milling equipment. Wheat imports in the form of wheat flour have diminished over the past decade because Cuba is able to mill the majority of imported wheat into flour. Imports account for all Cuban consumption of wheat; during crop years 1995-96 to 1998-99 (the latest period for which data are available) imports (and consumption) rose from 776,000 to 951,000 metric tons (85 percent wheat and 15 percent flour). The EU, in particular France, has, by far, been the leading supplier of wheat to Cuba with assistance from government subsidy and export credit programs, although Canada and Argentina have supplied significant amounts during this period.[25]

Historical and Current Impact of Sanctions on the United States

Prior to the imposition of sanctions, the United States supplied most Cuban wheat imports. USDA data indicate that during 1955-58 annual U.S. wheat and wheat flour exports to Cuba averaged about 200,000 metric tons (on a wheat equivalent basis),

[25] Further background on the U.S. and Cuban wheat sectors can be found in Appendix G, tables G-12a through G-12d.

which amounted to less than 2 percent of U.S. wheat exports during that period. Owing to the small share of U.S. exports going to Cuba and the ability of U.S. exporters to find alternative markets, the overall historical impact of sanctions on the U.S. wheat industry was small.

However, industry sources indicate that in the absence of sanctions, U.S. exporters would be able to take market share away from current suppliers to the Cuban market, and thus the current impact of sanctions on the U.S. wheat industry is fairly significant.[26] The EU (mainly France), Argentina, and Canada have supplied most Cuban wheat imports in recent years. All three exporting countries are extremely competitive with the United States in terms of price and quality.[27] Official U.S. export credit programs provide some competitive edge to U.S. wheat exports to certain markets (including, potentially, the Cuban market). Moreover, U.S. wheat shipped from Gulf ports would probably enjoy a per-ton ocean freight advantage of about $10 over EU wheat.[28] By contrast, given the magnitude of EU wheat flour assistance, U.S. wheat flour is unlikely to be price competitive in the wheat flour markets.

USDA[29] data suggest that in crop year 1999-2000, Cuban wheat imports from all nations were equivalent to about 3 percent of total U.S. wheat exports to all countries (29 million metric tons). Thus, the United States could easily supply all of Cuba's current wheat import demand with little strain on U.S. production or on prices. Most U.S. wheat exports move through U.S. Gulf ports and would benefit from low costs of shipping to Cuba. The Commission estimates that U.S. wheat exports to Cuba in the absence of sanctions would total $34 million to $52 million annually,[30] representing between 40 and 60 percent of Cuban wheat imports in the short term. The approximate 9-percent U.S. price advantage probably would encourage a shift of about half of Cuban wheat imports to U.S. origin. This change would increase U.S. exports by 1 to 1.5 percent of the value of 1999 U.S. wheat exports.

The U.S. Wheat Associates reported that Cuba could import as much as 1 million metric tons of wheat annually in the longer term, assuming that more milling capacity was added. USDA indicated to the Commission that the United States could supply most of Cuba's annual imports of $100 million of wheat and $40 million of wheat flour in the

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[26] Nelson Denlinger, Vice-President, U.S. Wheat Associates, testimony before the Commission, Sept. 19, 2000, transcript, pp. 323-346.

[27] The EU is the primary exporter of both wheat and wheat flour to Cuba, benefitting from substantial government financial assistance. For instance, official EU financing covers all or nearly all French wheat and wheat flour exports to Cuba. In addition, agreements to purchase French wheat by Cuba often involve requirements that France purchases sugar from Cuba. Canada and Argentina are highly efficient, internationally competitive, wheat producing countries.

[28] The price in crop year 1999-2000 for U.S. wheat (No. 2, Hard Red Winter, ordinary protein, f.o.b. Gulf ports) was about $110 per metric ton, according to data of the USDA; this implies a 9-percent advantage over EU wheat (assuming that the f.o.b. EU wheat price is roughly equivalent to the U.S. export price). Nelson Denlinger, Vice-President, U.S. Wheat Associates, testimony before the Commission, Sept. 19, 2000, transcript, p. 322.

[29] USDA, FAS, *Grain: World Markets and Trade*, July 2000, p. 9.

[30] This assumes a U.S. share of between 40 and 60 percent of Cuban wheat imports of 780,000 metric tons, valued at $110 per metric ton.

absence of sanctions.[31] The American Farm Bureau Federation reported that, "Cuba is a solid market for total imports of cereals, including corn, wheat, barley and rice of over $300 million."[32]

According to industry representatives, the U.S. wheat industry would probably export wheat (but little wheat flour) to Cuba rather than invest in Cuban industry in the absence of sanctions. However, some incidental investment to complement this trade would be expected, and to substantially increase the volume of Cuban wheat imports would require adding milling capacity in Cuba.[33]

Historical and Current Impact of Sanctions on Cuba

Prior to the sanctions, Cuba imported about 200,000 metric tons of wheat annually. From the 1960s till the late 1980s, the Soviet bloc countries supplied wheat and wheat flour to Cuba, much of which was heavily subsidized or provided in countertrade for Cuban sugar at favorable prices. Some of this wheat was lower-grade feed wheat used in livestock feed and not milled in Cuba. As a result, the cost of wheat was very low or nil to Cuba, and consumption in Cuba rose. During the 1980s, Cuba imported as much as 1 million metric tons annually of wheat and wheat flour. Thus, until the ending of Soviet assistance the impact of sanctions on the Cuban wheat industry was small. However, with the withdrawal of Soviet support, Cuba was forced to turn to the EU, Canada, and Argentina, all of which are large wheat exporters. As a result, the cost of importing wheat rose as did internal costs of bread and flour.

Cuba is likely to import wheat, particularly unmilled wheat, from the United States in the absence of U.S. sanctions. Over the long run, assuming that official U.S. credit guarantees are available for sales to Cuba and with competitive freight and handling costs, imports from the United States would probably contribute at least half of Cuba's unmilled wheat imports, displacing largely EU and Argentine wheat. Cuban annual wheat imports were about 780,000 metric tons in recent years, and imports from the United States could amount to roughly 400,000 metric tons, valued at $34 million to $52 million annually. The Cuban milling industry may have to increase its milling capacity in order to handle an increased volume of wheat imports over the long term. In the short run, milling capacity is adequate to handle current levels of wheat imports.

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[31] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

[32] Richard Newpher, Executive Director, Washington Office, American Farm Bureau Federation, written submission to the Commission, received Oct. 4, 2000.

[33] Nelson Denlinger, Vice-President, U.S. Wheat Associates, testimony before the Commission, Sept. 19, 2000, transcript, pp. 323-346.

The United States is the world's fourth leading exporter of rice; U.S. rice production averaged $2.1 billion annually (at the farm level) during 1995-99. U.S. exports of rice—both rough (unmilled) and fully milled rice—amounted to nearly $1 billion annually in this period, with Japan, the EU, and Mexico being the three leading U.S. markets. Historically the U.S. rice sector has been very export dependent. The export share of U.S. production was between 40 percent and 53 percent annually during 1995-99. U.S. imports of rice amounted to $187 million in 1999, most of which came from Thailand and India. The U.S. rice industry is located mainly in Arkansas and the Gulf States, has substantial available stocks and unutilized milling capacity, and would enjoy low shipping cost to the nearby Cuban market.

Cuba, like many other tropical countries, produces a significant proportion of its rice consumption, but remains highly dependent on imports for more than half its domestic consumption. Cubans are heavy consumers of rice, having per capita consumption four times the U.S. level. Rice is subsidized and rationed in Cuba at a reported 6 pounds per month and a price of 1.50 pesos (about U.S. 1 cent) per pound in July 2000.[34] Cuban imports averaged almost 300,000 metric tons annually during the period, peaking at about 389,000 metric tons in 1996-97, supplied mainly by Thailand, China, and Vietnam.[35]

Historical and Current Impact of Sanctions on the United States

Prior to the sanctions, the United States supplied most of Cuban rice imports.[36] During 1955-58, U.S. rice exports averaged about 160,000 metric tons (milled basis) annually to Cuba, which was the leading U.S. foreign market (purchasing about 25 percent of U.S. rice exports) during that period, according to USDA data. Thus, historically the loss of the Cuban market had a significant impact on the U.S. rice industry, although over time U.S. exporters were able to ship to other countries, but frequently only with official U.S. export assistance.

According to industry sources, the current impact of sanctions on the U.S. rice industry is significant.[37] They indicate that U.S. exporters would be highly competitive with current suppliers (Thailand, China, and Vietnam) to the Cuban market in the absence of sanctions. Although all three exporting countries compete on the basis of

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[34] Karen DeYoung, "Cuba Climbs Economic Ladder," *The Washington Post,* July 24, 2000, p. A20.

[35] Further background on the U.S. and Cuban rice sectors can be found in Appendix G, tables G-13a through G-13d.

[36] Richard Bell, President and CEO, Riceland Foods Inc., written submission to the Commission, received Sept. 19, 2000.

[37] Dennis DeLaughter, Chairman, U.S. Rice Producers Association, at conference, "The Domestic Impact of U.S. Unilateral Food and Medical Sanctions: Case Study of Cuba," World Policy Institute, June 15, 2000.

lower-priced rice as compared to U.S. rice, U.S. rice is of high quality and potentially would enjoy favorable export credit terms; for rough rice, simple availability is an advantage for the United States since the three leading foreign rice exporters ban rough rice exports. Also, U.S. rice shipped from Houston would enjoy an ocean freight advantage over Thai or Vietnamese rice, which could cut the price advantage for Thai rice nearly in half and probably encourage some shift to U.S. rice.[38]

The Commission estimates that U.S. exports of rice to Cuba would total $40 million to $59 million annually in the absence of sanctions, based on average 1996-98 trade data, representing between 40 and 60 percent of Cuban rice imports in the short term, mostly at the expense of Thailand.[39] This change would increase U.S. exports by 3 to 5 percent of the value of 1999 U.S. rice exports. The U.S. rice industry would probably export milled rice and some rough rice to Cuba rather than invest in Cuban industry. However, some incidental investment to complement this trade would be expected.

The domestic rice industry association indicated in testimony that, in the long run under economic liberalization in Cuba, total Cuban milled rice imports would be between 550,000 and 600,000 metric tons annually (valued at $130 million to $175 million), nearly all of which would be U.S. rice.[40] USDA reported that Cuba imports about $86 million of rice annually and that the United States would supply most of these imports in the absence of sanctions.[41] The American Farm Bureau Federation indicated that rice from Arkansas and Texas can be exported to Cuba, and that its industry sources estimated potential long-term U.S. rice sales to Cuba of over $300 million annually (about a third of current U.S. rice exports).[42]

Historical and Current Impact of Sanctions on Cuba

The impact of sanctions on the Cuban rice market has been significant. As mentioned above, Cuba imported around 200,000 metric tons of rice annually prior to the sanctions in the 1950s, most of which was supplied by the United States. As a result of sanctions, Cuba was forced to find alternative suppliers. Since the imposition of U.S.

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[38] Current U.S. rice prices are substantially above Thai and Vietnamese rice; for example, in crop year 1999-00, the price for U.S. long-grain milled rice (f.o.b. Houston) was $284 per metric ton; Thai rice (f.o.b. Bangkok) was $230 per metric ton; and Vietnamese rice, $202 per metric ton. (Projected average crop-year price, July 2000, USDA, ERS, *Rice Outlook*, July 13, 2000.) However, U.S. exports would enjoy a freight advantage of $20 to $25 per metric ton over Thai or Vietnamese rice (estimated rate of $30 per metric ton from Bangkok to Havana compared with $5 to $10 per metric ton from Houston to Havana).

[39] This assumes the U.S. share rises to 40 percent to 60 percent of Cuban rice imports of 330,000 metric tons, valued at a price of $300 per metric ton.

[40] Richard Bell, President and CEO, Riceland Foods Inc., written submission to the Commission, received Sept. 19, 2000. p. 4.

[41] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

[42] Richard Newpher, Executive Director, Washington Office, American Farm Bureau Federation, written submission to the Commission, received Oct. 4, 2000.

economic sanctions, Thailand, China, and Vietnam have supplied most Cuban rice imports at a higher cost than if rice imports could have been sourced from the United States.[43] The Commission estimates that Cuban rice imports from the United States would total $40 million and $59 million annually in the absence of sanctions, representing as much as 60 percent of all Cuban rice imports. Cuban imports of U.S. rice stand to increase in the long run in the absence of sanctions.[44]

Feedgrain[45]

The United States is the world's leading producer and exporter of feedgrain, with annual U.S. production averaging above $20 billion (at the farm level) during 1995-99. U.S. imports of feedgrain amounted to about $400 million in 1999, most of which came from Canada. U.S. exports of feedgrain (overwhelmingly composed of corn) amounted to nearly $6 billion in 1999 and went mainly to Japan, Mexico, and Korea. Overall, the U.S. feedgrain sector has been export dependent, with the export share of U.S. production between 21 percent and 36 percent during 1995-99. Historically, a large share of U.S. corn exports received official U.S. government assistance through export credit programs.

Cuban feedgrain production consists mostly of corn and small amounts of sorghum. During crop years 1995-96 to 1999-2000, Cuban production of feedgrain rose from 82,000 metric tons to 131,000 metric tons; however, because of the drastic fall in imports, consumption dropped by nearly half from 357,000 metric tons in crop year 1995-96 to 196,000 metric tons during crop year 1998-99. Prior to the sanctions, Cuba had a small grain-fed livestock industry that consumed small amounts of feedgrain. With the expansion of its grain-fed livestock industry during the 1960s through 1980s and a highly subsidized meat sector, Cuba became dependent on imports of low-priced Soviet grain. After the collapse of the Soviet Union, Cuba could not afford to import feedgrain on commercial terms, and the livestock sector contracted sharply, resulting in much lower feedgrain consumption. While Cuban annual corn production rose to 131,000 metric tons by 1998-99, and animal feed contained more sugar byproducts and food wastes, Cuban meat production remained largely unchanged.

Historical and Current Impact of Sanctions on the United States

U.S. sanctions had a minimal effect on U.S. feedgrain production and export levels and posed few problems for the U.S. corn and feedgrain industry. Prior to the

[43] José Alvarez and William A. Messina, *Cuba's Rice Industry: Potential Imports from Florida*, Food and Resource Economics Dept., Univ. of Florida, Feb. 1993, p. 21.

[44] Dennis DeLaughter, Chairman, U.S. Rice Producers Association, at conference, "The Domestic Impact of U.S. Unilateral Food and Medical Sanctions: Case Study of Cuba," World Policy Institute, June 15, 2000.

[45] Feedgrain includes corn, sorghum, feed wheat, and feed barley.

implementation of U.S. economic sanctions, Cuba's grain-fed livestock sector was rather small, and the United States supplied Cuba with negligible amounts of corn and feed grain—less than 2,000 metric tons of corn, valued at $39,000 in 1957 (compared with U.S. feedgrain exports to all countries of about $300 million annually during the late 1950s).[46] During this period, U.S. feedgrain exports focused on developed countries, such as Japan, the EU, and to developing markets, such as South Korea and Taiwan, with large domestic feed operations.

In the absence of sanctions, the U.S. feedgrain industry is likely to be highly competitive in the Cuban market, particularly in corn and sorghum. U.S. exports, which move chiefly through Gulf ports, would enjoy lower costs of shipping to Cuba than any other supplier, such as Argentina or Canada; and the United States is highly competitive based on price.[47] The Commission estimates that U.S. exports of feedgrain to Cuba would total $9 million to $10 million annually in the absence of sanctions, based on 1996-98 average trade data, representing 90 to 100 percent of Cuban feedgrain imports, which are currently about 110,000 metric tons annually.[48]

USDA indicated to the Commission that the United States could supply up to 500,000 metric tons of feedgrain (roughly $40 million, representing less than 1 percent of total U.S. feedgrain exports) annually to Cuba in the absence of sanctions, "although currently Cuba feedgrain imports are low."[49] The American Farm Bureau Federation indicated that its Iowa Farm Bureau affiliate expects U.S. annual exports of corn to Cuba to exceed $80 million almost immediately after sanctions are ended.[50]

Historical and Current Impact of Sanctions on Cuba

Prior to the imposition of sanctions, Cuba did not have a developed livestock sector using prepared feed, and therefore imported only negligible amounts of feedgrain. Thus the initial impact of U.S. sanctions on the Cuban industry was minimal. But during

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[46] In the 1950s, Cuba imported processed and prepared meat (pork and poultry) from the United States rather than grain or feed ingredients to be fed to poultry and hogs domestically.

[47] Commission staff estimate U.S. corn exports would probably have an ocean freight advantage over Argentine corn of $10 to $15 per metric ton. Assuming a rate of $20 per metric ton from Buenos Aires to Havana compared with $5 to $10 per metric ton from New Orleans to Havana. The 1999-2000 crop-year export price for U.S. corn was $91 a metric ton (No. 2, yellow, Gulf ports. USDA, ERS, *Feed Outlook,* July 14, 2000, Sept.-May 2000, projected crop year average), implying an advantage for U.S. corn over competitors' prices of from 11 to 16 percent of the U.S. f.o.b. price.

[48] This assumes a U.S. share of 90 to 100 percent of 110,000 metric tons of Cuban corn imports, valued at the current price of $90 per metric ton.

[49] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

[50] Richard Newpher, Executive Director, Washington Office, American Farm Bureau Federation, written submission to the Commission, received Oct. 4, 2000.

the 1960s to 1980s Cuban hog and poultry production expanded,[51] and feedgrain consumption reached 600,000 metric tons annually during 1985-89.[52] During the 1960s to 1980s, most Cuban imports of corn and feedgrain (including feed-grade wheat) were supplied by Soviet bloc countries.

With the ending of Cuba's access to cheap Soviet feedgrain in the early 1990s, the livestock sector contracted and average annual feedgrain consumption fell to 196,000 metric tons during crop years 1995-96 to 1998-99. Cuba turned to Argentina, Canada, and the EU for feedgrain. These suppliers are competitive feedgrain exporters with the United States; Canada supplies Cuba primarily with corn and feed wheat while Argentina supplies primarily corn. Since the 1990s, these exporters emerged as Cuba's primary suppliers of feedgrains, mostly corn.

The current effect of the sanctions is to increase the delivered cost of feedgrain to Cuba, because U.S. feedgrain was unavailable. Consequently, Cuba probably would import feedgrain, particularly corn, from the United Sttes rather than from some more distant suppliers. The Commission estimates that the United States could supply more than 90 percent of Cuban feedgrain imports in the absence of sanctions, estimated to total $9 million to $10 million annually. The availability of feedgrain is likely to encourage expansion of poultry and hogs so that total Cuban consumption of feedgrain would rise even further over time.

Animal Feed

The U.S. animal feed industry is the world's largest, with production of animal feed ingredients and finished feed products[53] estimated at almost $38 billion in 1999. The industry has several advantages: namely, favorable access to raw materials, particularly corn, soybeans, and food byproducts; and high levels of technology that produce high-quality products at low cost . Most animal feed production services the domestic market. However, significant amounts of animal feed ingredients, such as soybean meal and corn gluten, and feed products, such as pet food, are exported. In 1997, roughly one-quarter of U.S. soybean meal production and over 60 percent of corn gluten were exported.[54] Imports comprise a very small share (2 percent) of U.S. consumption. Most U.S. exports of animal feed consist of feed ingredients, such as soybean meal and corn gluten, rather than finished feed products.

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[51] For example, hog production in Cuba rose from 343,000 head in 1967 to 1.3 million head in 1989. Charles House, "Aging Feed Plant Mixes Imports for Cuban Hog Sector," *Feedstuffs*, May 15, 1995, p. 3.

[52] Carmen D. Deere, *Socialism on One Island: Cuba's National Food Program and its Prospects for Food Security*, Working Paper No. 124, Institute of Social Studies, the Hague, June 1992.

[53] Feed ingredients include vegetable, meat, and fish meals; grain and vegetable byproducts; supplements; premixes; and vitamins. Finished feed products include complete feeds and pet foods.

[54] U.S. International Trade Commission, *Industry & Trade Summary: Animal Feeds*, USITC Publication 3275, Jan. 2000.

The Cuban feed industry is characterized by aging, inefficient feed mills and declining production. Animal feed production (consisting of mixed feeds manufactured from imported feed ingredients such as corn, wheat, and soybean meal) in Cuba totaled almost 600,000 metric tons in 1998, down significantly from the 721,000 metric tons produced in 1995. During 1995-99, almost a third of Cuban animal feed consumption was imported, supplied mostly by Argentina.[55] The value of animal feed imports average $58 million annually during 1996-98, most of which (85 percent) was soybean meal. The Cuban industry is undergoing radical consolidation to boost livestock production.

Historical and Current Impact of Sanctions on the United States

The historical impact of sanctions on the U.S. animal feed industry has been small, though not negligible, given that Cuba was a leading market for certain U.S. feed exports. Prior to the imposition of sanctions, the United States supplied Cuba with small amounts of animal feed ingredients and products. The main animal feed ingredient supplied to Cuba was soybean meal. In 1958, for instance, Cuban imports from the United States were valued at just under $3 million (40,000 short tons), representing about 12 percent of total U.S. exports of soybean meal. Slightly over $1 million (15,000 short tons) of mixed poultry feeds were exported to Cuba in 1957, representing about 15 percent of total U.S. exports of mixed poultry feed. Other feed exports to Cuba were negligible. Since the imposition of sanctions, the United States found other markets for animal feed, particularly Japan, Canada, and the EU.

The current impact of sanctions is to deny U.S. exporters access to a growing Cuban market for animal feed ingredients (particularly vegetable meals and oilseed meals) that resulted from the significant expansion in the Cuban hog sector.[56] Based on U.S. market share in other Caribbean markets for soybean meal (roughly 80 to 90 percent), the oilseed industry estimates foregone U.S. soybean meal exports as a result of U.S. sanctions for 1997-98 at $41 million to $46 million.[57] It also projects that the cumulative market value for "lost U.S. soybean meal exports" if sanctions remain to 2005-06 at between $672 million and $763 million.[58]

In the absence of sanctions, the U.S. animal feed industry would stand to boost its exports of animal feed ingredients to Cuba. Exports of soy products, including soybean meal, would be particularly beneficially affected. The Commission estimates

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[55] Further background on the U.S. and Cuban animal feed sectors can be found in Appendix G, tables G-15a through G-15d.

[56] Between 1961 and 1989, for instance, total Cuban imports of vegetable meals rose from about 32,000 to 360,000 metric tons. Data compiled from USDA, FAS, *Foreign Agricultural Statistics of the United States*, various issues, 1958.

[57] Industry representative, response to USITC survey, June 29, 2000.

[58] Ibid.

that U.S. exports of soybean meal to Cuba in the absence of sanctions would be $42 million to $48 million, based on average 1996-98 trade data, or 80 to 90 percent of Cuban imports (equivalent to about 3 percent of total U.S. exports of soybean meal). Given the proximity to Cuba, it is likely that the United States would overtake Argentina as the leading supplier of soybean meal to Cuba. The U.S. oilseed industry estimates that 1,200 to 1,400 jobs would be created and prices of soybean meal would increase by $1.70 per metric ton in the absence of sanctions.[59] It is more likely that the U.S. soybean meal industry would rely on exports rather than investment within Cuba, at least in the short term.[60]

Other U.S. feed sectors would also benefit in the absence of sanctions. Based on numerous industry submissions, the meat and bonemeal industry, which is currently dealing with sluggish demand and low prices, would benefit[61] as would ingredients such as distillers dried grains (for dairy cattle), cottonseed meal, fish meal, and supplements.[62] Industry also expressed interest in exploring the Cuban market for supplements, premixes, chemicals, meat and bonemeal, and vitamins for livestock. Most of the companies contacted note that the volumes of exports of these products would be small, valued at about $100,000, though a few companies suggested export sales to Cuba of up to $3 million. Information collected from industry submissions suggests that the impact on the U.S. sector would be small, with any market impacts taking between 6 months and several years to take effect.

For other feed ingredients, estimates of the current impact of sanctions depends on the type of ingredient. The United States would probably have a major share (80 to 90 percent) of the cottonseed meal market and the meat and bonemeal market, for instance. In fish meal, it is likely that Chile would maintain much of its Cuban market share, given that it is a major world exporter, though the United States would have a major advantage in transport costs over Chile. In other products, particularly supplements and specialty feeds where quality and service are much more important factors than price, it would take time for the United States to build market share and for the Cuban livestock sector to modernize to the extent that demand for supplements and other specialty feeds would increase. Given these factors, the Commission estimates that U.S. exports of other feed ingredients to Cuba would total $2.6 million to $5.2 million in the absence of sanctions, based on average 1996-98 trade data, or 30 to 60 percent of Cuban imports. It is likely that the United States would eventually be the major exporter of these feed ingredients owing to price and freight advantages relative to alternative suppliers.

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[59] Based on the export value of soybean meal in 1997-98. Industry representative, response to USITC survey, June 29, 2000.

[60] Industry representatives, responses to USITC survey, various dates.

[61] Industry representative, response to USITC survey, July 21, 2000.

[62] Charles House, "A good first step for Cuba: high-quality distillers grains," *Feedstuffs*, May 15, 1995, p. 3.

Historical and Current Impact of Sanctions on Cuba

The historical impact of sanctions on Cuba was to divert imports away from the United States and toward alternative suppliers. In particular, the Soviet Union and Argentina supplied Cuba with imports of vegetable meals, with Argentina currently the major supplier of soybean meal. The quantity of Cuban feed grains, vegetable meals, supplements, and premixes that could be combined in Cuban feed mills would most likely improve in the absence of U.S. sanctions, through greater U.S. exports of these products. The Commission estimates that Cuba could import between $39 million and $44 million of animal feed in the absence of sanctions, replacing Argentina as Cuba's leading supplier of the product. It is also possible that an increase in the amount of imported complete feeds from the United States could compete with Cuban feed production, although feed ingredients mixed in Cuba might compete better on price than U.S.-origin complete feeds.

Fats and Oils[63]

U.S. fats and oils production averaged $8.5 billion annually during 1996-99. The U.S. fats and oils sector has been historically export dependent, with the export share of U.S. production between 22 and 32 percent during 1995-99. For the animal fats industry, foreign markets are even more important than for vegetable oils. U.S. exports of fats and oils, chiefly soybean oil and animal tallow and greases, amounted to $2.2 billion annually in this period, with Mexico, Canada, and Korea the three leading markets. The United States is the world's fourth leading exporter of fats and oils; chief competitive exporters are Argentina, the EU, Brazil, Malaysia, and Indonesia. U.S. imports of fats and oils amounted to $1.4 billion during the past 5 years, most from Canada, the EU, and Malaysia.

Cuba, like many other tropical countries, produces a significant proportion of its fats and oils consumption, but remains highly dependent on imports. During crop years 1995-96 to 1999-2000, Cuban fats and oils production (most of which consists of lard, tallow, and poultry fat from livestock processing) remained flat at 100,000 metric tons annually. Cuban fats and oils imports averaged slightly above 100,000 metric tons annually during the period, peaking at about 127,000 metric tons in 1997-98. There is little processing or crushing of oilseeds into vegetable oil and oilseed meal in Cuba.[64] Cuba refines or repackages imported fats and oils for consumer use either as cooking oils or frying fat (shortening) products. Cuban fats and oils production peaked in the 1980s as a result of the high levels of pork and poultry production, and then fell as livestock output dropped. Cubans are moderate consumers of fats and oils, having per

[63] Animal fats consist mainly of beef fat (tallow) and pork fat (lard). Vegetable oils consist mainly of soybean oil, sunflower oil, and cottonseed oil.

[64] *Oil World* indicates that Cuba does not crush any oilseeds, although Cuban statistics indicate that some soybeans are imported.

capita consumption of about 17 kilos annually. Fats and oils consumption in Cuba is heavily subsidized and rationed, reportedly about 55 grams per month at a price of 0.15 pesos (about U.S. 6 cents) per pound in July 2000. [65, 66]

Historical and Current Impact of Sanctions on the United States

Prior to the sanctions, the United States supplied most Cuban imports of fats and oils. During 1955-58, annual U.S. fats and oils exports to Cuba averaged about 100,000 metric tons (mainly animal fat), representing about 7 percent of total U.S. fats and oils exports. Cuba purchased about one-third of total U.S. lard exports in that period. Thus the historical impact of sanctions was significant initially for the U.S. fats and oils industry, particularly for the animal fats industry. However, over time U.S. exporters were able to find alternative markets.

In the absence of sanctions, the U.S. fats and oils industry stands to export lard, tallow, and vegetable oil to Cuba, taking a substantial share of Cuban imports away from competing countries. Currently Argentina and Brazil are the two leading exporters of soybean oil and are very price competitive with U.S. soybean oil. However, the United States is the leading exporter of animal fats, a lower-priced product than soybean oil.[67] The U.S. fats and oils industry exports mainly through the Gulf ports, has currently large stocks available, and would enjoy low costs of shipping to Cuba. For instance, U.S. product shipped from New Orleans would probably benefit from an ocean freight advantage over Argentine or Brazilian soybean oils from $10 to $15 per metric ton,[68] which would probably encourage Cuba to shift most, if not all, of its soybean oil purchases to U.S. fats and oils. The Commission estimates that U.S. fats and oils exports to Cuba would total $29 million to $33 million annually in the absence of sanctions, representing 80 to 90 percent of Cuban fats and oils imports, which now average about 122,000 metric tons annually.[69]

An industry representative indicated that the Cuban market for soybean oil was 48,000 metric tons in 1997-98,[70] and that, based on the 85 to 95 percent U.S. share

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[65] Karen DeYoung, "Cuba Climbs Economic Ladder," *The Washington Post,* July 24, 2000, p. A-20.

[66] Further background on the U.S. and Cuban fats and oils sectors can be found in Appendix G, tables G-16a through G-16d.

[67] For example, in crop year 1999-00, the price for U.S. soybean oil (f.o.b. Decatur) was $352 per metric ton; Argentine soybean oil (f.o.b. Buenos Aires) $345 per metric ton; and U.S. tallow (delivered Chicago) $302 per metric ton. Projected average price, USDA, FAS, *Oilseeds World Markets and Trade*, July 2000. The tallow price is for Oct.-July 1999-00, from data of the USDA, ERS, Aug. 14, 2000.

[68] Estimated rate of $20 per metric ton from Buenos Aires to Havana compared with $5 to $10 per metric ton from New Orleans to Havana.

[69] This assumes the United States gets a 80 percent to 90 percent share of the 122,000 metric tons of Cuban imports of fats and oils valued at $300 per metric ton.

[70] Industry representative, response to USITC survey, received June 29, 2000.

of soybean oil exports to other Caribbean countries, U.S. soybean oil exports to Cuba without sanctions would have been from $23 million to $26 million in that year. The USDA reported that Cuban imports of vegetable oils have averaged in excess of $50 million annually over the past 5 years, and that the United States could supply as much as half of this amount, or $25 million annually.[71] Another industry representative indicated that U.S. exports of animal fats, tallow, and other rendered products (such as meat and bonemeal used in animal feed) could amount to $2 million to $3 million annually.[72] The American Farm Bureau Federation indicated that its Iowa Farm Bureau affiliate estimated that U.S. exports of soybeans to Cuba would exceed $70 million annually almost immediately in the absence of sanctions.[73]

Historical and Current Impact of Sanctions on Cuba

The overall historical impact of sanctions on the Cuba fats and oil industry was fairly significant. Although the United States was the major supplier of Cuban fats and oil imports in the late 1950s, other countries, in particular Argentina, Brazil, and China, emerged as Cuba's primary suppliers following the imposition of sanctions. These countries have supplied most of Cuban fats and oils imports since the early 1960s. In the short run, total Cuban fats and oils imports would remain unchanged in the absence of sanctions, although the United States would probably supply the majority (80 to 90 percent) of these imports. In the long run, lower-priced U.S. fats and oils would likely increase total consumption.

Dry Beans[74]

The United States is the world's fourth leading exporter of dry beans, behind Canada, China, and Australia. U.S. dry, edible bean production averaged about $600 million annually (at the farm level) during 1995-99. U.S. imports of dry beans amounted to $183 million in 1999, most of which came from Canada and India. U.S. exports of dry beans, which include navy beans, pinto beans, black beans, lentils, kidney beans, chick peas, and dried peas, amounted to $326 million annually in this period, with the EU, Mexico, and Canada the three leading U.S. markets. The U.S. edible bean sector has historically been very export dependent. The export share of U.S. production was between 47 percent and 68 percent annually during 1995-99.

Cuba produces a small fraction of its edible bean consumption and remains highly dependent on imports from Canada, India, and Mexico. During 1995-99, Cuban

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[71] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000. The submission contained no assumption upon which this estimate was based.

[72] Industry representative, response to USITC survey, July 21, 2000.

[73] Richard Newpher, Executive Director, Washington Office, American Farm Bureau Federation, written submission to the Commission, received Oct. 4, 2000.

[74] Dry beans, also termed "pulses" or "legumes," include all dry edible beans, peas, and lentils (soybeans excluded).

bean production rose from 11,000 metric tons (1995 was a drought year in many Caribbean bean-producing countries) to 18,000 metric tons. Cuban imports averaged 143,000 metric tons annually during 1995-98, peaking at about 189,000 metric tons in 1997, and mostly supplied by Canada and China.[75]

Historical and Current Impact of Sanctions on the United States

Overall the historical impact of sanctions on the U.S. dry bean industry has been small. Although the loss of the Cuban market initially posed a significant problem for the industry, over time exporters were able to ship to other countries. Prior to the imposition of sanctions, the United States supplied most of Cuban dry bean imports. During 1955-58, U.S. dry bean exports averaged about 86,000 metric tons annually to Cuba, which was the third or fourth leading U.S. foreign market during that period, according to USDA data. U.S. dry bean exports to Cuba in the 1950s consisted largely of black beans (46 percent of the value of the U.S. exports), red kidney beans (22 percent), white beans (16 percent), and pinto beans (6 percent).

In the absence of sanctions, the U.S. dry bean industry would probably export black beans, pinto beans, and white beans to Cuba. Although the U.S. dry bean industry is located mainly in the Northern Tier States, like Michigan, it has substantial available stocks, and already exports a high proportion of its products to Caribbean countries. In entering the Cuban market, U.S. beans would have to take market share away from Canada, China, and Australia, countries that compete in the world market on the basis of lower-priced products compared with U.S. beans and peas. However, U.S. products, particularly beans, compete on the basis of their excellent quality and favorable export credit terms. U.S. peas and lentils have not been price competitive with Canadian products in recent years.[76] However, U.S. black beans, pinto beans, white beans, and red kidney beans are highly competitive with Canadian beans. U.S. beans would enjoy an ocean freight advantage over Chinese beans and peas, but little over Canadian peas and lentils.[77]

The Commission estimates that U.S. dry bean exports to Cuba would total $13 million to $26 million annually in the absence of sanctions, or 20 to 40 percent of Cuban dry bean imports.[78] Canadian peas and lentils currently undersell U.S. exports of peas and lentils and are not likely to be affected in the short term as U.S. beans are likely to displace beans from other sources. USDA reported that the United States is "well positioned" to supply dry beans to the Cuban market in the absence of sanctions.[79]

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[75] Further background on the U.S. and Cuban dry beans sectors can be found in Appendix G, tables G-17a through G-17d.

[76] See USITC, *Dry Peas and Lentils*, Publication No. 2627, Apr. 1993.

[77] In 1999, the season average grower price for U.S. dry edible beans was $18 per hundredweight or $400 per metric ton; a freight advantage of $5 to $10 per metric ton is less than 3 percent of this price. USDA, ERS, *Vegetables and Specialties Outlook*, July, 2000.

[78] This assumes a U.S. share of 20 to 40 percent of Cuban imports of 159,000 metric tons of dry beans valued at $400 per metric ton.

[79] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

Historical and Current Impact of Sanctions on Cuba

Overall the historical impact of sanctions on the Cuban dry bean industry was fairly small. After sanctions were imposed, Cuba was able to find alternative suppliers, particularly the Soviet Union, and more recently Canada and China (countries that are highly price competitive with the United States). In the absence of sanctions, Cuba is estimated to import between 20 and 40 percent of its total dry bean imports from the United States in the near term, representing about $13 million to $26 million of imports annually. Cuban imports of dry beans would be likely to increase in the long run without sanctions. The Cuban dry bean industry is likely to be only minimally affected by the increased imports because increased consumption would probably mitigate any impact.

Cotton

In 1999, U.S. cotton production was valued at almost $4 billion, making the United States the second largest cotton producer after China. Although production costs in the United States are higher than in many other cotton-producing countries, U.S. government export payments enable U.S. cotton to be price-competitive on world markets. The value of U.S. cotton exports was almost $1 billion in 1999, down from $3.7 billion in 1995. Key markets include Mexico, Japan, and Indonesia.

Cuba produced almost no cotton prior to the imposition of U.S. sanctions. In the aftermath of the agrarian reform law of 1959, cotton was targeted in Cuba's crop diversification efforts, but the program was not successful. Land devoted to cotton was reconverted to produce sugarcane.[80] Nearly all cotton consumed in Cuba is provided by imports, supplied mainly by Mexico and Spain. Because there is little cotton production in Cuba, there are no historical and current impacts to report.[81]

Historical and Current Impact of Sanctions on the United States

The historical impact of sanctions on the U.S. cotton industry has been very small. During 1956-60, Cuban imports of U.S. cotton ranged between 4,100 and 7,700 metric tons annually, representing less than 0.2 percent of estimated U.S. production at that time.[82] Because Cuba's clothing and textile industries were not well developed,

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[80] William A. Messina, and José Alvarez, *Potential Cuban Imports for Selected Florida Field Crops: Cereals, Cotton, Potatoes*, (Gainsville, University of Florida, Dec. 1992), p. 10

[81] Further background on the U.S. and Cuban cotton sectors can be found in Appendix G, tables G-18a through G-18d.

[82] Thomas M. Bell and F.E.M. Gillham, *The World of Cotton* (Washington, DC: Conticotton, EMR, 1989), p. 380.

most cotton imports from the United States were in the form of finished textiles and apparel.[83] Thus, initially U.S. cotton producers suffered more from the loss of Cuban markets for cotton textiles and apparel than from lost sales of raw cotton (see Textiles and Apparel in chapter 6).[84]

The Cuban textile and clothing industries experienced considerable growth during the 1960s through 1980s. Cuban demand for cotton quadrupled during this period, and imports from all sources increased from less than 13,000 metric tons to over 50,000 metric tons. Almost all of the import growth was supplied by the Soviet Union, as well as small quantities from Peru and several countries in Central America because U.S. sanctions prevented U.S. suppliers from meeting this demand.[85] The Cuban economy suffered a severe depression and imports of cotton declined precipitously following the withdrawal of Soviet economic assistance after 1989.[86] By 1993, imports totaled only 3,200 metric tons, recovering slightly by 1998 to 6,000 metric tons.[87]

The United States is a natural supplier of raw cotton to Cuba; and in the absence of sanctions, the U.S. industry could satisfy all of the Cuban demand with current inventories.[88] Spain and Mexico, the two countries that satisfy most of Cuba's current demand, are not well positioned to compete with U.S. suppliers over the long term. Spain's primary disadvantage is distance to market, while Mexican cotton production, consumption, and trade trends indicate that Mexican product available for export to Cuba will probably decline over time.[89]

At late 1990s levels, Cuba would remain a minor market for cotton, primarily consuming lower-quality merchandise shipped from U.S. inventories. Nonetheless, Cuba maintains very few nontariff barriers against agricultural products that it does not produce, such as cotton; and the rate of duty on all cotton is only 5 percent ad valorem. Assuming pre-1989 import levels, the USDA estimates that Cuba could

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[83] Industry representative in e-mail to Commission staff, July 5, 2000.

[84] More important during the 1960s and 1970s were lost export opportunities for U.S. cotton exports resulting from the demand shift away from cotton toward synthetic fibers, such as polyester. U.S. exporters were unable to find alternative markets for Cuban sales as world cotton demand contracted. Largely as a result of this trend, between 1949 and 1969, acres of cotton harvested by U.S. farmers declined nearly 57 percent, from almost 27 million acres to less than 12 million acres.

[85] See note 80, pp. 10-11.

[86] Cuba's cotton imports declined from $60 million to $10 million after 1990. Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

[87] Data from the Food and Agriculture Organization, at *http://apps.fao.org/page/collections?subset=agriculture*, retrieved June 12 and 14, 2000. ICAC estimates that current imports are only 5,000 metric tons. See *World Cotton Trade, 1999-00*, (Washington, DC: International Cotton Advisory Committee), at *www.icac.org*, retrieved July 5, 2000.

[88] It is unclear what the true demand for U.S. cotton would be in the absence of sanctions. Part of the uncertainty is that Cubans may have pent-up demand for all U.S. products, including cotton. Therefore, looking at current Cuban imports from other sources could be misleading when estimating future shipments of U.S. cotton to Cuba. On the other hand, Cuban demand is also stunted because of problems securing financing for cotton sales and a limited ability to finance machinery for producing intermediate products (e.g., cotton fabrics and yarns).

[89] See *World Cotton Trade,* note 87, pp. 6-7.

import cotton quantities equal to nearly 10 percent of current U.S. exports, and that the United States could supply at least half of Cuba's cotton imports ($30 million annually) if sanctions were lifted and the Cuban textile industry recovers.[90] The Commission estimates that Cuba would import roughly $6 million to $8 million of U.S. cotton in the absence of sanctions, or 50 to 70 percent of total Cuban imports.[91]

In the near term, the National Cotton Council (NCC)[92] indicated that Cuba probably would offer only limited export opportunities in the absence of sanctions. However, recently the NCC has been focusing on the new Caribbean Basin Trade Partnership Act (CBTPA) that allows duty-free/quota-free U.S. imports (from certain qualifying Caribbean Basin countries) of apparel made in the latter from U.S. fabric containing U.S. yarn.[93] The NCC is increasingly focused on sales of higher value-added intermediate products, such as yarn and fabrics, to countries in Central America and the Carribean that benefit from the CBTPA. Because Cuba is unlikely to qualify under the CBTPA, the NCC expects that no immediate expansion of the Cuban spinning industry would occur in the absence of sanctions and opportunities for U.S. cotton sales in Cuba would remain limited, unless Cuba ultimately qualifies for duty-free/ quota-free access to the U.S. market under CBTPA.[94]

Winter Vegetables[95]

U.S. production of winter vegetables totaled approximately $828 million in 1999. The U.S. winter vegetable industry is concentrated in Florida, and the U.S. winter vegetable market is one of the largest in the world. U.S. production and imports have been increasing in recent years, largely in response to a rise in demand owing mainly to consumers' health concerns. Imports make up more than half of domestic consumption, with Mexico the principal supplier. U.S. tariffs on imports of winter vegetables are relatively low; however, extensive U.S. phytosanitary restrictions limit

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[90] Timothy J. Galvin, Administrator, USDA, FAS, written submission to the Commission, Sept. 28, 2000.

[91] This estimate is based on the U.S. share of Cuban cotton imports prior to the imposition of sanctions, as well as recent trends in Cuban cotton imports and world cotton prices. In evaluating the Commission's estimates of U.S. cotton sales in Cuba if sanctions are lifted, Kent Lanclos, an economist for National Cotton Council, stated that the United States could gain significant market share in Cuba in the absence of sanctions (50 percent or more). His reasons included transportation cost advantages and the port of Miami as a major shipping point for cotton. However, Dr. Lanclos also noted that Cuba's ability to pay U.S. dollars and potential anti-American sentiment are other factors that must be considered. E-mail to the Commission, Oct. 26, 2000.

[92] National Cotton Council is an umbrella organization representing the U.S. cotton industry.

[93] The CBTPA also contains some allowances for regional knit fabric containing U.S. yarn.

[94] Mark Lange, director of Economic Services for National Cotton Council, e-mail to Commission staff, June 16, 2000. Lange bases his estimates on the last Food and Agriculture Organization fiber use survey (1987-89), which listed Cuba's annual per capita consumption of cotton at 5 kilograms (11 pounds). He estimates that per capita consumption has declined since 1989.

[95] Includes tomatoes, peppers, cucumbers, eggplant, and squash.

imports to approved sources. U.S. exports, virtually all to Canada, account for a minor share of U.S. production and have been relatively stagnant in recent years.

The Cuban winter vegetable industry generally is comparable to the U.S. industry in terms of capacity (acreage), climate, and growing season. However, yields in Cuba are substantially below those in the United States (for example, winter tomato yields in the United States were about 36,000 pounds per acre in 1998, compared with only 5,000 pounds per acre in Cuba), mainly owing to the lack of critical inputs, such as fertilizers and pesticides. Cuban production of winter vegetables has risen substantially in recent years (reaching approximately 1.5 million metric tons in 1999) largely the result of increased demand in the tourist sector. Cuba is a minor global winter vegetable market, and Cuban trade is minimal relative to production mainly because of quality constraints for exports and a lack of foreign exchange for imports.[96]

Historical and Current Impact of Sanctions on the United States

Historically the U.S. winter vegetable industry directly benefitted from the sanctions because Cuba was a major foreign supplier of winter vegetables to the U.S. market and the void caused by the sanctions contributed to the further development of the U.S. industry. The U.S. industry also expanded partly as a result of the emigration, mainly to South Florida, of highly skilled Cuban vegetable farmers whose Cuban land was confiscated during the period.[97] In 1960, Cuba supplied 10 percent of the $24 million of U.S. tomato imports, trailing Mexico's share of 86 percent.[98] In the same year, Cuba was the second leading supplier of peppers (2 percent of $2 million) and was the leading supplier of cucumbers (50 percent of $3 million) and "other" fresh vegetables (56 percent of $1 million). After the imposition of sanctions, U.S. imports shifted mainly to Mexican sources, which were highly substitutable for Cuban product and comparable in terms of cost. Winter vegetables historically were not exported from the United States to Cuba.

In the absence of sanctions there most likely would be U.S. exports of winter vegetables to Cuba. Although the United States historically did not export winter vegetables to Cuba, the development of the South Florida industry, Cuban demand fed primarily by Cuba's tourism sector, and Cuba's current production constraints are likely to result in U.S. exports to Cuba.[99] The Commission estimates that U.S. exports of fresh winter vegetables to Cuba could total $250,000 to $500,000 annually in the absence of

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[96] Further background on the U.S. and Cuban winter vegetables sectors can be found in Appendix G, tables G-19a through G-19d.

[97] Industry representative, telephone interview, by Commission staff, July 24, 2000.

[98] U.S. Department of Commerce, *United States Imports of Merchandise for Consumption*, Report No. FT110, May 1961.

[99] Industry representatives, telephone interviews, by the Commission staff, June 29 and Aug. 7, 2000; industry representative, response to USITC telephone survey, June 27, 2000.

sanctions, virtually all the result of growing demand in the Cuban tourism sector.[100] The bulk of such trade is likely to be in tomatoes and peppers.[101] These exports probably would face competition from Canada, Mexico, and Chile, currently the leading suppliers to Cuba. However, current Cuban imports are relatively minor, and, for some items, there may be a preference for U.S. products. Cuban duty rates for winter vegetables of concern are bound under the WTO at 40 percent ad valorem, although the MFN applied rates are only 4 percent ad valorem. Long-term U.S. export growth is likely to be constrained primarily by Cuba's lack of foreign exchange and the U.S. industry's competitive disadvantage in supplying the Cuban domestic market because of higher labor and transportation costs.[102]

The absence of sanctions on Cuba is also likely to result in relatively minor annual U.S. imports of fresh winter vegetables from Cuba. Such imports could total $30,000 to $60,000 (representing less than one-tenth of 1 percent of total U.S. imports of winter vegetables).[103] The bulk of such imports would be peppers. U.S. imports of tomatoes from Cuba would probably be negligible, as Cuban tomato exports to the world have been virtually nil in recent years.

Industry sources estimate that Cuba has, in the longer term, the potential to increase substantially and rapidly such exports, perhaps by several orders of magnitude if future economic reforms attract sufficient foreign capital and technology to improve production, yields, the distribution infrastructure, and marketing capabilities.[104] U.S. industry also shows interest in investing in the Cuban winter vegetable sector. However, such investment likely would depend on the liberalization of the Cuban economy, particularly with respect to land ownership.[105] Cuba has a substantial and underutilized production capacity that could be rehabilitated relatively quickly, reportedly within 1 to 2 growing seasons.[106] If Cuba were to regain the 10-percent share of the U.S. winter vegetable import market it held prior to the sanctions, the annual level could amount to $100 million based on current U.S. import levels. Of this, about $55 million could be fresh tomato imports.[107] Cuba could increase its production from current levels to supply this amount.[108]

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[100] This is a short-term effect, assuming no political or economic structural reforms. It assumes that 50 to 100 percent of Cuban imports of winter vegetables would be sourced from the United States and further assumes no Cuban import restrictions. Analysis is based on UN data on average annual Cuban imports during 1995-99, as reported by partner countries.

[101] Based on UN data on average annual Cuban imports during 1995-99, as reported by partner countries.

[102] The Commission staff field interviews with U.S. winter vegetable industry representatives and academics, Sept. 25-29, 2000.

[103] See note 100. This also assumes that the column 1 rate of duty would be applied.

[104] See note 102.

[105] Industry representatives, telephone interviews, by the Commission staff, June 29 and Aug. 7, 2000; industry representative, response to USITC telephone survey, June 27, 2000.

[106] See note 102.

[107] An industry analyst reports that an additional imports of fresh tomatoes could have a negative impact on U.S. domestic production and prices. It is estimated that for every 1-percent rise in U.S. imports, domestic production is displaced by 0.8 percent and prices drop by 0.4 percent. Commission staff interview with Dr. John Van Sickle, University of Florida, Sept. 29, 2000.

[108] This rise in supply could be realized by an increase in yields alone. Current Cuban production yields for vegetables are about 5,000 to 6,000 pounds per acre, without the extensive use of agricultural inputs such as soil fumigants, fertilizers, and pesticides. U.S. yields are about 30,000 to 35,000 pounds

U.S. imports of winter vegetables from Cuba are likely to have a negative impact on producers in South Florida. Such imports ultimately would compete directly with production from this location in terms of types of vegetables and marketing season. The greatest impact would probably be felt by the southernmost Florida producers during the winter months of January-March.[109] Although South Florida producers are slightly closer to major U.S. markets, this proximity advantage is mitigated by the relative distance of these markets from both South Florida and Cuba.[110] In addition, Cuba would enjoy cost advantages in terms of land and labor. Another U.S. industry concern is that Cuba would have access to methyl bromide, a widely used and effective soil fumigant, for another 10 years after 2005 when the U.S. industry is required to cease using it.[111] Imports may benefit packers and brokers, who could handle both imported and domestically produced product. Some such operators had partnerships with Cuban suppliers prior to the sanctions.[112] The degree of adverse impact on individual U.S. operators is likely to depend on various factors, including degree of capitalization, vertical integration, precise location of production facilities and geographic range of operations,[113] and former ties to Cuba.[114] Also, U.S. imports of winter vegetables from Cuba would probably displace some imports from other sources, such as Mexico.

Cuba would face competition in the U.S. import market mainly from Mexico, as well as from Canada and the Netherlands.[115] U.S. column 1-general rates of duty are low on most fresh winter vegetables, ranging from "free" to 7.7 percent ad valorem and with an average tariff of 1.8 percent ad valorem.[116] Cuba benefitted from preferential duties prior to the sanctions, but the difference between the column 1-general rates and the preferential rates has been mostly eliminated through duty reductions over time.

108—*Continued*
per acre. Thus, given no increase in acreage with the application of inputs, Cuban yields could approach U.S. levels and production could rise by several fold. Cuban acreage is comparable to that in Florida for most winter vegetables and has room to increase. For tomatoes, Cuban acreage totaled about 49,000 acres in 1998, as compared with 39,000 acres in Florida. Cuban pepper acreage was about 4,000 acres that year as compared with about 19,000 acres in Florida. Total Cuban winter vegetable production was about 1.5 million metric tons in 1999. To supply $100 million of exports of winter vegetables to the United States (about 10 percent of U.S. imports), assuming a unit value of about $500 per metric ton, Cuba would have to increase production by about 200,000 metric tons, or about 13 percent of the 1999 level. Calculated based on statistics of the Florida Agricultural Statistics Service and the Oficina Nacional de Estadistícas, *Anuario Estadístico de Cuba 1998*, (Havana, 1999).

[109] Commission staff field interviews with U.S. winter vegetable industry representatives and academics, Sept. 25-29, 2000.

[110] Principal domestic markets for winter vegetables produced in South Florida are scattered among major metropolitan areas such as New York, Chicago, and Los Angeles. Industry representative, telephone interview, by the Commission staff, June 29, 2000.

[111] See note 102.

[112] John J. VanSickle and William Messina, *Cuba's Vegetable Industry*, International Working Paper Series IW93-3, International Agricultural Trade and Development Center, Food and Resource Economics Department, University of Florida, Gainesville, FL, Feb. 1993, p. 9.

[113] Some Florida vegetable growers have operations along the entire U.S. east coast, which enables them to supply product throughout most of the year. These growers are likely to be less affected by imports from Cuba during the winter months than growers who operate solely in Florida.

[114] Industry representative, telephone interview, by the Commission staff, July 24, 2000.

[115] U.S. imports of winter vegetables from Canada and the Netherlands are produced in greenhouses.

[116] Calculated based on official statistics of the U.S. Department of Commerce. Calculated duties divided by Customs value.

Column 2 rates probably would not be prohibitive to Cuban winter vegetables.[117] Phytosanitary measures and marketing order regulations, however, are likely to have a greater effect as approval to import vegetables from Cuba could take several years.[118]

Historical and Current Impact of Sanctions on Cuba

The historical impact of sanctions on the Cuban winter vegetable market have been significant. Cuba was a significant overall supplier of winter vegetables, particularly tomatoes and cucumbers, to the U.S. market prior to the sanctions.[119] The relatively high perishability of the products, coupled with the lack of refrigerated distribution capabilities at the time, generally limited the redirection of Cuban exports of winter vegetables to the relatively distant successor markets, namely the Soviet Union. Some exports were reported to Canada and Eastern European markets.[120] After the dissolution of the Soviet Union in 1989, Cuban winter vegetable production fell substantially, mainly owing to the lack of imported inputs (fertilizers, pesticides) from that source.[121]

The sanctions had little impact on Cuban imports of winter vegetables from the United States, as such imports were minor at that time. However, the sanctions affected Cuban imports of other vegetables and vegetable products from the United States, such as potatoes, onions, carrots, and various processed vegetable products.[122]

The current impact on the Cuban winter vegetable sector is minimal,[123] and Cuban production would remain low even in the absence of sanctions. In addition, U.S. phytosanitary restrictions would impose further limitations of trade. As a result, Cuban exports of fresh winter vegetables to the U.S. market probably would take several years to develop. However, in the longer term, Cuba is likely to resume substantial exports of winter vegetables to the U.S. market. Cuba generally possesses advantages in climate, soils, costs, and proximity to the U.S. market as compared with current U.S. and foreign suppliers for many of the vegetables. The quality of Cuban production is

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[117] Column 2 rates for the fresh winter vegetables of concern ranged between about 5 and 6 percent ad valorem equivalent (AVE) based on the unit values of U.S. imports in 1999. The column 2 AVE for tomatoes in 1999 was about 7 percent, that for peppers about 5 percent, and that for cucumbers about 16 percent. The difference between the column 1 and column 2 AVEs (based on 1999 trade) for fresh winter vegetables ranged between 1 and 6 percentage points.

[118] William Messina, Richard N. Brown, James E. Ross, and José Alvarez, "Cuban Non-Sugarcane Agricultural Trade Patterns: Historical Perspectives and Future Prospects," *Cuba in Transition–Volume 7*, (Washington: Association for the Study of the Cuban Economy, 1997), p. 20.

[119] John J. VanSickle and William Messina, *Cuba's Vegetable Industry*, International Working Paper Series IW93-3, International Agricultural Trade and Development Center, Food and Resource Economics Department, University of Florida, Gainesville, FL, Feb. 1993, p. 1.

[120] Kathryn H. Wylie, *A Survey of Agriculture in Cuba*, USDA, Economic Research Service, June 1969, p. 20.

[121] William Messina, Richard N. Brown, James E. Ross, and José Alvarez, "Cuban Non-Sugarcane Agricultural Trade Patterns: Historical Perspectives and Future Prospects," *Cuba in Transition–Volume 7*, (Washington: Association for the Study of the Cuban Economy, 1997), p. 16.

[122] U.S. Department of Commerce, *United States Exports of Domestic Merchandise*, Report No. FT410, May 1961.

[123] See the previous section for estimates of the level of trade with the United States.

likely to improve with the adoption of technology and the use of vital production inputs. The U.S. industry, both large firms and individual growers, would probably invest in Cuban production facilities if certain economic liberalization measures were taken.[124] The length of time before such trade would resume would depend on issues such as phytosanitary approvals, expropriation claims, and foreign investment and profit repatriation restrictions. Industry sources indicate that such trade probably would take 10 years to develop.[125]

Cuba would probably become a net importer of winter vegetables from the United States in the short term, mainly to supply the growing tourism sector. U.S. producers in Florida are in close proximity to the Cuban market, they currently possess a global reputation for high product quality, and cultural ties between growers in South Florida and the Cuban market still exist. Competition faced by U.S. exports in the Cuban market would probably come from Canada, Mexico, and Chile. Cuban trade measures are not likely to constrain imports in the short term. In the longer term, the likelihood of sustained and expanding U.S. exports of winter vegetables to Cuba, particularly to supply the domestic market, is less certain, given the relative competitive disadvantage of the U.S. industry compared with that of Cuba in terms of production and marketing costs. Any quality advantages maintained by U.S. exports probably would erode over time as the Cuban industry improved its growing and distribution practices.

Tropical Fruit[126]

U.S. production of tropical fruit totaled approximately $450 million in 1999. U.S. production and imports have been increasing in recent years in response to rising demand fueled mainly by consumer health concerns. Imports supply the bulk of consumption, while exports are relatively minor. The United States is a relatively minor global producer but is a major world importer of tropical fruit. U.S. rates of duty are relatively low on imports of tropical fruit, but phytosantiary restrictions limit trade in certain items.

Cuban production of tropical fruit reached approximately 938,000 metric tons in 1999. Annual production has increased irregularly in recent years. Cuba is a relatively minor global producer and trader. Cuban production is limited by a severe lack of vital inputs, such as fertilizers and pesticides, as the ability to purchase such imports is constrained by a lack of foreign exchange.[127]

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[124] Industry representatives, telephone interviews, by the Commission staff, June 29, 2000 and Aug. 7, 2000; industry representative, response to USITC telephone survey, June 27, 2000.

[125] Ibid.

[126] Includes bananas, pineapples, plantains, avocados, mangoes, guavas, and papayas.

[127] Further background on the U.S. and Cuban tropical fruit sectors can be found in Appendix G, tables G-20a through G-20d.

Historical and Current Impact of Sanctions on the United States

Historically, sanctions probably had a positive but small impact on the U.S. tropical fruit industry. U.S. tropical fruit firms operated in Cuba prior to the imposition of sanctions, and many individual fruit growers emigrated from Cuba after the Castro government assumed power, setting up new operations in the South Florida region. This influx into the United States of highly skilled growers was a key factor in establishing the U.S. industry in the early 1960s.[128] Meanwhile, large firms that sourced products[129] from Cuba prior to the imposition of sanctions found alternative sources for supplies, mainly in other Caribbean and Latin American countries (such as Mexico, Dominican Republic, and Costa Rica) and in Asia (such as Philippines, Malaysia, and Taiwan). The U.S. tropical fruit sector historically did not export to the Cuban market, and Cuba was a minor market for U.S. exports of other fruits, such as apples, pears, and grapes.[130]

In the absence of sanctions, the impact on the U.S. tropical fruit sector is likely to be positive in the short term and negative in the long term. Although the United States historically did not export tropical fruits to Cuba, the development of the South Florida tropical fruit industry and the current growth in Cuban demand, particularly with respect to the tourist trade, will probably result in net exports by the United States in the short term.[131] Cuba would probably also resume imports of nontropical fruit, such as apples, pears, grapes, and canned fruit.

The Commission estimates that U.S. exports of tropical fruit to Cuba would total $36,000 to $72,000 annually in the short term in the absence of sanctions, almost all to supply Cuba's tourism sector.[132] Long-term U.S. export growth is likely to be constrained primarily by the U.S. industry's competitive disadvantage in supplying the Cuban domestic market with respect to higher labor and transportation costs, limited U.S. production capacity, and Cuba's lack of foreign exchange.[133]

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[128] Industry representative, telephone interview, by the Commission staff, June 29, 2000. Two large U.S. fruit firms have substantial expropriation claims against the Cuban Government, as do many individual fruit growers. Industry representative, telephone interview, by the Commission staff, Aug. 3, 2000; Matias F. Travesio-Diaz, "Alternative Remedies in a Negotiated Settlement of the U.S. Nationals' Expropriation Claims Against Cuba," *University of Pennsylvania Journal of International Economic Law*, vol. 17, no. 2, 1996.

[129] Prior to the imposition of sanctions, Cuba was the sole foreign supplier of fresh avocados to the U.S. market, with U.S. imports totaling $359,000 in 1960. Cuba was also the second leading foreign supplier of fresh mangoes ($79,000) and pineapple products ($5 million, including processed) that year. Cuba supplied 29 percent of the $15.5 million of U.S. pineapple imports in 1960 and supplied significant amounts of tropical fruit preparations to the U.S. market. U.S. Department of Commerce, *United States Imports of Merchandise for Consumption*, Report No. FT110, May 1961; USDA, FAS, *Foreign Agricultural Trade of the United States*, Aug. 1961.

[130] Industry representative, response to USITC telephone survey, June 27, 2000; USDA, FAS, *Foreign Agricultural Trade*, various annual issues.

[131] Industry representatives, telephone interviews, by the Commission staff, June 29 and Aug. 7, 2000; industry representative, response to USITC telephone survey, June 27, 2000.

[132] Based on Food and Agriculture Organization and Central Intelligence Agency data on Cuban imports during 1995-99, as reported by partner countries.

[133] Industry representatives, telephone interviews, by the Commission staff, June 29, 2000 and Aug. 7, 2000; industry representative, response to USITC telephone survey, June 27, 2000.

U.S. fruit exports to Cuba probably would face competition from Latin and South American suppliers. Chile, Argentina, and Mexico are among the region's leading producers and exporters of both tropical and nontropical fruits and are current suppliers to Cuba. However, current levels of Cuban imports are relatively minor, and for some items there may be a preference for U.S. products. Cuban duty rates for fruits are bound under the WTO at 40 percent ad valorem, although MFN applied rates for most fruits range between 5 and 10 percent ad valorem.

The absence of sanctions would probably result in relatively minor annual levels of U.S. imports of tropical fruit from Cuba in the short term. Such imports could total $90,000 to $180,000, representing less than one-tenth of 1 percent of total U.S. imports of tropical fruit.[134] In the longer term, U.S. imports of tropical fruit from Cuba are likely to be significantly higher, in the tens of millions of dollars, if Cuba manages to overcome constraints regarding limited access to inputs (fertilizer, pesticides), technology, and capital. Such imports probably would consist mainly of avocados, mangoes, and papayas. Moreover, the U.S. industry has an interest in investing in the Cuban tropical fruit sector, although such investment would depend on the liberalization of the Cuban economy, particularly with respect to land ownership.[135] In addition to exporting to the U.S. market, U.S. firms establishing operations in Cuba could also export products to other markets such as the EU and Japan.[136]

Over the longer term, U.S. imports of tropical fruit from Cuba probably would have a negative impact on producers in South Florida. Such imports would compete directly with production from this location in terms of types of fruit and seasonality. Although South Florida producers are closer to major U.S. markets, this proximity advantage is tempered by the relative distance of these markets from both South Florida and Cuba.[137] Imports are likely to benefit tropical fruit packers and brokers, who currently handle imported product from other sources. Cuba would face competition in the U.S. import market mainly from other Latin American sources, principally Mexico, Costa Rica, Honduras, and Dominican Republic. U.S. tariffs generally are low on fresh tropical fruits, ranging from free to 9.7 percent ad valorem, with an average tariff of 0.4 percent ad valorem.[138] Cuba benefitted from preferential duties prior to the sanctions, but the difference between the column 1-general rates and the preferential rates generally has been eliminated through duty reductions over time. If column 2 rates were applied, duties are likely to be prohibitive to Cuban exports of tropical fruits

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[134] The estimate is a short-term effect, assuming 50 to 100 percent of Cuban exports of tropical fruit would be destined for the U.S. market and that the column 1-general rate of duty would be applied. Based on Food and Agriculture Organization data for Cuban exports during 1995-98.

[135] See note 131.

[136] Industry representative, telephone interview, by the Commission staff, Aug. 7, 2000.

[137] Principal domestic markets for the tropical fruits produced in South Florida are scattered among major metropolitan areas such as New York, Chicago, and Los Angeles. Industry representative, telephone interview, June 29, 2000.

[138] Calculated based on official statistics of the U.S. Department of Commerce. Calculated duties divided by Customs value.

and thus producers in South Florida would not be affected.[139] Phytosanitary measures would probably have a greater affect, and approval to import fruits from Cuba could take several years.[140]

Historical and Current Impact of Sanctions on Cuba

From a historical perspective, sanctions had a significant impact on Cuba's tropical fruit industry. The United States was a major consumer of tropical fruits exported from Cuba prior to the imposition of sanctions. With the loss of the U.S. market, Cuban exports were redirected mainly to the Soviet Union and Europe.[141] The sanctions had little impact on Cuban imports of tropical fruits from the United States because such imports were minor.

As mentioned above, Cuba probably would resume substantial exports of tropical fruit to the U.S. market in the long term in the absence of sanctions. For many of the fruits under review, Cuba generally possesses advantages in climate, soils, land and labor costs, and proximity to the U.S. market compared with current U.S. and foreign suppliers. The U.S. industry reported that it probably would invest in Cuban production facilities if certain economic liberalization measures were taken.[142] The length of time required for such trade to resume would depend on issues such as phytosanitary approvals, expropriation claims, and foreign investment and profit repatriation restrictions. Industry sources indicate that such trade would take about 10 years to develop.[143]

Cuba is likely to become a net importer of tropical and other fruits from the United States in the short term, mainly to supply the growing tourism sector. The United States enjoys proximity to the market, a reputation for quality, and cultural ties between growers in South Florida and the Cuban market. Competitors in the Cuban market would include Latin American and Asian sources for tropical fruits and the EU and Chile for nontropical fruits. Cuban trade measures are not likely to constrain imports in the short term. However, the lack of foreign exchange in Cuba probably would be a constraint.

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[139] Column 2 rates for the tropical fruit of concern, not including bananas and pineapples, ranged between 9 and 63 percent ad valorem equivalent (AVE) based on the unit values of U.S. imports in 1999. The column 2 AVE for avocados in 1999 was approximately 25 percent, that for papayas was 35 percent, and the range for guavas and mangoes was between 9 and 63 percent. The difference between the column 1-general and column 2 AVEs (based on 1999 trade) for tropical fruit ranged between 9 and 51 percentage points.

[140] William Messina, Richard N. Brown, James E. Ross, and José Alvarez, "Cuban Non-Sugarcane Agricultural Trade Patterns: Historical Perspectives and Future Prospects," *Cuba in Transition-Volume 7*, (Washington: Association for the Study of the Cuban Economy, 1997), p. 20.

[141] Ibid., p. 14; Kathryn H. Wylie, *A Survey of Agriculture in Cuba*, USDA, Economic Research Service, June, 1969, p. 20.

[142] Industry representatives, telephone interviews, by the Commission staff, June 29 and Aug. 7, 2000; industry representative, response to USITC telephone survey, June 27, 2000.

[143] Ibid.

Citrus Fruit[144]

The United States is the largest citrus producing country in the world. Production reached $2.6 billion in 1999, representing almost one-quarter of world production. Roughly 40 percent of production is exported, with exports averaging about $1 billion annually during 1995-99. The major export markets for U.S. citrus are Japan, Canada, and the EU. The United States also imports about one-quarter of its citrus consumption; and imports, which reached $539 million in 1999, have grown rapidly over the past 5 years. During this period imports came mostly from Brazil, Mexico, and Spain. Most of the U.S. citrus crop (located mostly in Florida) is processed into juices, primarily frozen concentrated orange juice, but also grapefruit, lemon, and lime juices.

Citrus growing conditions in Cuba are most similar climatically and geographically to those in Florida; Cuba's growing and harvesting seasons, however, begin earlier in the year, and freezing weather is not the risk that it is in Florida. The Cuban citrus industry is hampered by low yields, structural rigidity and inefficiencies created by state control, and lack of market incentives and capital investment. Cuba is the world's third leading grapefruit producing country, behind the United States and Israel. Cuban annual production of citrus fruit is estimated at about $60 million, much of which is exported to the EU. Cuba's share of world production and exports is less than 1 percent.[145] Cuban imports of citrus fruit are negligible.[146]

Historical and Current Impact of Sanctions on the United States

Historically, sanctions benefitted the U.S. citrus industry. Prior to the imposition of sanctions, the U.S. industry was not faced with competition from Cuban citrus because the Cuban citrus export industry was not well established. However, as the Cuban citrus industry grew after 1960, sanctions reportedly benefitted the U.S. citrus industry, particularly in Florida, by restricting competition from Cuban citrus, mainly fresh grapefruit, orange juice, grapefruit juice, and limes.[147] In particular, Cuban grapefruit could have been highly competitive with U.S.-produced grapefruit during the period sanctions have been in place.[148]

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[144] Citrus includes unprocessed oranges, grapefruits, lemons, limes, and tangerines.

[145] Fernando Remirez de Estenoz, principal officer, Cuban Interests Section, Washington, DC, and Deputy Minister of Foreign Affairs of the Republic of Cuba, testimony before the USITC, Sept. 12, 2000, transcript, p. 57.

[146] Further background on the U.S. and Cuban citrus sectors can be found in Appendix G, tables G-21a through G-21d.

[147] Cuba is not a potentially important supplier of fresh oranges to the U.S. market. California, with its drier, more northerly climate, is able to satisfy most of the domestic demand for fresh oranges (and lemons) and it would be difficult for Cuban oranges to compete with those from California because of the seed content and external appearance. *The Cuban Citrus Industry: An Assessment of Potential Market Opportunities after Lifting of U.S. Economic Sanctions*, Armando Gonzalez, University of Havana, and Thomas Spreen and Ron Muraro, University of Florida, 2000, p. 18.

[148] Ibid., p. 19.

In the absence of sanctions the U.S. citrus industry would probably face import competition from Cuba, especially U.S. growers of grapefruits and oranges and U.S. companies producing grapefruit juice and orange juice.[149] Industry representatives have noted that Cuba could export enough citrus 6 to 8 weeks ahead of the first U.S. production to depress prices for the whole U.S. season. Florida is more vulnerable to Cuban exports than either Texas or California because of geography, and because Florida has a larger market share of U.S. production. In addition to having an earlier season, Cuban citrus production has an advantage over Florida in terms of soil quality, lower labor costs, absence of freezing weather, and access to pesticides restricted in the United States, although it is at a disadvantage in terms of appearance of fresh citrus.[150]

One source estimated that Cuba could potentially produce 20 million gallons (single strength equivalent) of frozen concentrated orange juice and 8 million gallons of frozen concentrated grapefruit juice,[151] equivalent to about 1.5 percent and 5 percent, respectively, of recent U.S. consumption.[152] Cuba produced 310,000 metric tons of grapefruit in the 1999-2000 crop season, the equivalent of 37 percent of U.S. fresh grapefruit consumption.[153] According to an industry source, Cuba has the potential to supply immediately 15 percent or more of the U.S. fresh grapefruit market, 15 percent of the U.S. grapefruit juice market, 7 percent of the U.S. fresh orange market, and 3 percent of the U.S. orange juice market.[154] According to the American Farm Bureau Federation, potentially Cuba could export large quantities of limes to the United States and could challenge Mexico as a primary supplier.[155] A recent study by the Florida Department of Citrus analyzed the effect on the price of grapefruit in Florida if all of Cuba's exports of fresh grapefruit went into the U.S. market.[156] The results indicate that the additional Cuban fruit might decrease the price by 34 cents per 42.5-pound carton, from $6.62 to $6.28 per carton.

U.S. sectors that could potentially benefit would be grapefruit marketers and distributors who would be able to purchase fruit 45 days prior to the Florida season, and citrus juice processors and blenders who would benefit from additional juice availability and the potential advantages of blending with Cuban juice. U.S.

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[149] Based on field interview in Florida by the Commission staff, with industry and academic representatives, Sept. 25-29, 2000.

[150] Ibid.

[151] *The Cuban Citrus Industry: An Assessment of Potential Market Opportunities after Lifting of U.S. Economic Sanctions*, Armando Gonzalez, University of Havana, and Thomas Spreen and Ron Muraro, University of Florida, 1998, p. 24.

[152] *Fruit and Tree Nuts, Situation and Outlook Yearbook,* USDA, ERS, FTS-287, Oct. 1999, p. 85.

[153] Estimated by the Commission staff from FAOSTAT and *Fruit and Tree Nuts Situation and Outlook Yearbook*, Oct. 1999.

[154] Matthew T. McGrath, on behalf of Florida Citrus Mutual, testimony before the USITC, Sept. 12, 2000, transcript, p. 530.

[155] American Farm Bureau Federation, Park Ridge, IL, letter to USITC concerning Investigation No. 332-413 concerning The Economic Impact of U.S. Sanctions with Respect to Cuba, Oct. 4, 2000, p. 2.

[156] "Potential Impacts of Cuban Citrus on Florida's Citrus Industry," Florida Department of Citrus, Aug. 21, 2000, Working Paper Series 2000-2, p. 5, prepared by Mark G. Brown, Senior Research Economist.

consumers would benefit from lower prices and a longer season when they could purchase fresh citrus fruit, particularly grapefruit.

It is unclear how quickly Cuban fruit could be shipped to the United States in the absence of sanctions, because of the possibility of quarantine restrictions on fresh fruit based on pests or diseases, such as fruit fly infestation, root tristeza, and citrus canker. The extent of these problems is unknown until USDA inspectors are allowed into Cuba to do an evaluation, but it could take some time after trade relations are the re-established before Cuban fruit becomes certified for export to the United States.[157] One estimate is that it would take between 3 and 5 years after lifting of the sanctions before Cuba could get phytosanitary clearance to ship fresh citrus to the United States.[158] With respect to processed citrus products, high U.S. duties would inhibit imports. Prior to the imposition of sanctions, Cuba received preferential rates on grapefruits, limes, oranges, prepared or preserved citrus, grapefruit peel, orange paste and pulp, but not on citrus juices.

Historical and Current Impact of Sanctions on Cuba

Only after 1960 were large-scale citrus groves planted in Cuba. With the Soviet financial assistance and market for Cuban citrus products, the Cuban citrus industry became one of the most important sectors of the Cuban economy. U.S. sanctions impacted the Cuban citrus industry most severely after the collapse of the Soviet Union when both financial support and a ready market for citrus fruit disappeared. The rapid expansion of citrus groves had led to significant imports of agricultural inputs (such as fertilizers, insecticides, fuel, and machinery), most of which had been provided by the Soviet Union on very favorable terms, while the fresh fruit that had been grown for the Soviet bloc market was of insufficient quality to compete in the world market.

U.S. imports of citrus from Cuba would total $9 million to $23 million annually in the absence of sanctions, based on 1996-98 trade data, or 20 to 50 percent of Cuba's exports.[159] This estimate also assumes imports from Cuba face column 1-general rates of duty. The share would be smaller if Cuba received column 2 rates of duty. However, it is likely that several years would be needed before fresh Cuban citrus would be cleared by USDA as meeting U.S. phytosanitary requirements.[160]

The most likely citrus exports to the U.S. market in the absence of sanctions would be fresh grapefruits, particularly between mid-August when the grapefruit season begins in Cuba and late September when the season begins in Florida. Grapefruit juice and orange juice, which could be blended with Florida product or product from other countries, would also be likely exports. About 85 percent of Cuba's oranges are Valencias, which are ideal for juice processing. Cuban grapefruit is also suitable for

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[157] See note 151.
[158] Ibid.
[159] Based on the Commission staff conversations with industry analysts.
[160] Posthearing statement of Florida Citrus Mutual, Concerning the Economic Effects of Trade Sanctions against Cuba on U.S. Citrus, Oct. 4, 2000, p. 3.

processing into grapefruit juice. Three modern processing plants in Cuba are capable of producing at quality levels sufficient for the U.S. market. In addition, transportation distances from Cuba are shorter than from major suppliers such as Brazil. Cuba has an incentive to ship to the United States rather than to Europe because of lower shipping costs—about $1,400 per 22-metric-ton container to the United States versus about $4,600 to Europe.[161] Cuba has significant idle land that could be used to extend citrus production, both in current citrus-producing areas and also in other parts of Cuba.[162] Cuba is presently processing some 75 percent of its grapefruit and competing with the United States, Spain, and Israel in Europe, and some of these exports could be shifted to the U.S. market. Most U.S. grapefruit is red while that of Cuba is mostly white. This could be a disadvantage to Cuba in the U.S. market, though possibly an advantage in Japan and Europe.[163]

The absence of sanctions might lead to U.S. investment in the Cuban citrus industry, resulting in the introduction of improved technology, management expertise, research, and availability of basic inputs. This investment would more likely be by large U.S. juice processors than by smaller companies or growers, particularly large Brazilian juice processors with operations in Florida.[164] Since 1992, a joint venture between an Israeli company and the Cuban Government has been producing citrus fruit and exporting it as fresh and processed product.[165]

Sugar

The United States is the fifth largest producer of sugar in the world and the third largest consumer, behind the European Union and Brazil. The United States consumes more sugar than it produces and is a net importer, importing slightly over $300 million of sugar in 1999. Over the past 5 years, U.S. sugarcane and sugar beet producers have increased the acreage planted and have subsequently increased overall production levels and yields. Of the total amount of refined sugar produced in the United States, 47 percent is derived from sugarcane and 53 percent is derived from sugar beets. The U.S. sugar industry operates under a complex system of government programs, regulations, and trade measures.

The sugar industry is the lifeline of the Cuban economy, serving as the largest employer in Cuba, as the greatest contributor to the country's export earnings, and as the second largest contributor to overall foreign exchange earnings, behind tourism.[166] Cuba

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[161] Based on field interview in Florida by the Commission staff with industry and academic representatives Sept. 25-29, 2000.

[162] Jamie Suchlicki, Professor, University of Miami, testimony before the USITC, Sept. 12, 2000, transcript, p. 284.

[163] See note 151.

[164] Matthew T. McGrath, on behalf of Florida Citrus Mutual, testimony before the Commission, Sept. 12, 2000, transcript, p. 540.

[165] Commission staff interview with Israeli citrus company manager, Havana, July 20, 2000.

[166] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 40.

devotes 36 percent of its cultivated land to sugarcane production.[167] In 1999, approximately 500,000 workers were employed by the sugar industry and sugar exports totaled $485 million dollars, representing about 80 percent of its production. While the industry is one of Cuba's most important, it is also one of the most inefficient, with cane yields significantly below those of the United States (Cuban cane yields were 14.6 metric tons per acre in 1999 compared with 21 metric tons per acre in the United States). Cuba's production levels have been falling in recent years and in 1999 reached the lowest level recorded in a century, bottoming out at 3.2 million metric tons, compared with production of almost 10 million metric tons in the late 1980s. Only 110 of the country's 156 sugar mills were in operation in 1999; they operated at about 71 percent of capacity.[168] Currently the sugar industry in Cuba is operating with aging equipment and fields and lacks access to necessary inputs.[169]

Historical and Current Impact of Sanctions on the United States

Prior to the economic sanctions, the United States and Cuban sugar markets were strongly linked via trade and investment. The United States relied heavily upon imports of raw cane sugar from Cuba, and since the beginning of the twentieth century, the United States had fashioned its sugar trade policy to assist the Cuban sugar industry, offering preferential tariff rates and large portions of the annual import quota allocation to the country. As a result, before the imposition of sanctions, the U.S. sugar import market was dominated by Cuban sugar. On average, 36 percent of the total yearly U.S. sugar supply was of Cuban origin in the last decade that the United States engaged in trade with Cuba.[170]

The United States supplied a substantial amount of the capital required to establish and expand the sugar industry in Cuba.[171] U.S. companies and nationals served as investors in the Cuban sugar industry, owned property (for example, mills, refineries, land, and storage facilities) in the country, and invested in the internal infrastructure of Cuba (for example, constructed roads and railways) before the Government began nationalizing foreign properties in 1959. Of the 161 sugar mills reportedly expropriated by the Cuban Government in 1959 and 1960, U.S. companies or U.S. citizens owned 35 at the time of confiscation.[172] U.S. companies and individuals involved in the Cuban sugar industry reportedly experienced extensive financial losses in Cuba in 1960.[173]

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[167] Ibid.

[168] "Third Estimate of the World Sugar Balance, 1999-2000," *F.O. Licht's International Sugar and Sweetener Report*, vol. 132, no. 23, Aug. 7, 2000.

[169] Further background on the U.S. and Cuban sugar sectors can be found in Appendix G, tables G-22a through G-22d.

[170] Committee on Agriculture, 91st Congress, 2d Session, Committee Print, "The United States Sugar Program," (Washington, DC: U.S. Government Printing Office, Dec. 1970).

[171] Farr, Whitlock & Company, *Manual of Sugar Companies, 35th Ed*, New York, 1960.

[172] Nicolas J. Gutierrez, Secretary and General Counsel to the National Association of Sugar Mill Owners of Cuba, testimony before the USITC, Sept. 20, 2000, transcript, p. 436.

[173] Among the U.S. companies that had their properties expropriated were the North American Sugar Industries, United Fruit Sugar Company, West Indies Sugar Corporation, Francisco Sugar

After revoking Cuba's sugar quota in 1960, the United States turned to other sugar-producing nations to fulfill its demand for sugar. As a result, current import quota-holders received increased access to the U.S. sugar market through the reallocation of Cuba's portion of the U.S. import quota. Reallocation required U.S. refineries to deal with several foreign suppliers from greater distances.[174] Although the reallocation to foreign countries increased transportation costs and delivery time, foreign suppliers were able to meet the quantity requirements of U.S. raw sugar refiners relatively quickly, with little or no impact on sugar availability or on sugar prices for individual U.S. consumers.[175]

As a result of sanctions, Cuba's portion of the sugar import quota was prorated among both foreign countries in the form of import quotas and domestic cane and beet producers in the form of production quotas.[176] As a result of sanctions, both U.S. beet and cane production quota amounts increased, and between 1959 and 1970, the U.S. mainland cane quota increased by 112 percent and the U.S. beet sugar quota increased by 89 percent.[177, 178]

The capital and expertise that flowed out of Cuba and into the United States served as catalysts for the expansion of the domestic sugarcane industry. The greatest impact was felt by the sugarcane industry in Florida. Cuban sugar producers, technicians, and mill owners emigrated to Florida and almost immediately reproduced the sugarcane industry they once had in Cuba. When economic sanctions were imposed and the U.S. Government relaxed domestic acreage restrictions, the Florida industry expanded rapidly.[179] Although no estimates for total employment are available, the rapid expansion of the industry in Florida probably resulted in increased employment in the industry.

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[173]—*Continued*
Company, Manati Sugar Company, New Tuinucu Sugar Company, Inc., and the Atlantic Refining Company of Cuba. In aggregate, claims against the Cuban Government by only these seven aforementioned sugar companies totaled nearly $500 million (valued in 1960 dollars and without accumulated interest), which equals approximately 28 percent of the total value of the 5,911 certified claims. Matias F. Travesio-Diaz, "Alternative Remedies in a Negotiated Settlement of the U.S. Nationals' Expropriation Claims Against Cuba," *University of Pennsylvania Journal of International Economic Law*, vol. 17, no. 2, 1996.

[174] Raw cane sugar made up 99.9 percent of Cuba's total sugar exports to the United States in 1959, and domestic raw cane sugar refineries relied heavily upon the Cuban supply. Cuban ports were relatively proximate to U.S. refineries, which provided for vertical integration between Cuban raw sugar millers and U.S. raw cane sugar refiners.

[175] Committee on Agriculture, 91st Congress, 2d Session, Committee Print, "The United States Sugar Program," (Washington, DC: U.S. Government Printing Office, Dec. 1970).

[176] Production quotas were implemented through acreage limitations on U.S. cane and beet producers.

[177] See note 172. Farr, Whitlock & Company, *Manual of Sugar Companies, 35th Ed*, New York, 1960.

[178] Industry representatives in the refining sector claim that the greatest impact on the welfare of U.S. cane refiners was not caused by the reallocation of Cuba's portion of the import quota to foreign suppliers, but rather, was caused by the reallocation to U.S. domestic sugar beet producers They assert that the embargo enabled domestic producers to expand beet sugar production, and thereby reduce the raw material (raw cane sugar) available to the cane refining industry. Nicolas Kominus, President, United States Cane Refiners' Association, interview with Commission staff June 20, 2000.

[179] Acreage increases were on the scale of almost 350 percent in the first 4 years. Eight new sugar mills were built, and production of sugar rose by 262 percent from 1960 to 1964. See note 172.

The current impact of sanctions on the U.S. sugar industry depends on the extent of the import access granted to Cuba. At this point, the amount of access that might be granted to Cuba by the United States is unknown. The United States established the reallocation of its quota during the Uruguay Round Agreement on Agriculture (URAA) when tariff rate quotas (TRQs[180]) for sugar were scheduled. Currently, the U.S. sugar TRQ is allocated to approximately 40 sugar-producing nations based upon historical imports during the period 1975 -81, a period in which Cuba did not export to the United States. In total, access granted under the WTO TRQ is approximately 1.25 million metric tons.[181] Cuba could be included in the current U.S. sugar market under a number of different scenarios, but the amount of that access is indeterminate because of the complexity of current U.S. sugar policy and because of current economic conditions that exist in the market.

If Cuba were included in the current TRQ regime in the absence of sanctions, Cuba's access is not likely to be on the scale to which Cuba was accustomed before the sanctions.[182] This is because sugar prices in the United States have fallen in recent years resulting from high levels of domestic production, TRQ imports under NAFTA and WTO, and an increase in imports of sugar from Canada in the form of sugar syrup. Additional sugar coming into the U.S. market from Cuba would exacerbate the supply conditions being experienced by U.S. producers.

If Cuba were not included in the current TRQ regime in the absence of sanctions, Cuban sugar exports to the United States would be zero and would therefore have no impact on the U.S. sugar industry. As with sugar from any other non-quota-holding country, Cuban sugar would be dutiable at the over-quota tariff rate for raw sugar of 242 percent ad valorem equivalent,[183] which given current world market prices is prohibitive.[184]

Historical and Current Impact of Sanctions on Cuba

The historical impact of U.S. sanctions on the Cuban sugar sector was highly significant. Cuba was the world's largest exporter of sugar, accounting for 33 percent of total world sugar exports in 1959.[185] Sugar exports contributed to 25 percent of

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[180] A tariff-rate quota is an import quota with a lower tariff for "in-quota" imports and a higher tariff for "over-quota" imports. The import quota may be allocated on a country-by-country basis. Countries that are not allocated portions of the import quota have the opportunity to import at the higher over-quota rate.

[181] Also, the United States granted Mexico its own TRQ for sugar under NAFTA, which provides the country with preferential access to the U.S. market for an amount up to 250,000 metric tons until 2008, when the TRQs for Mexico will be eliminated and a common market for sugar will exist between the United States and Mexico.

[182] In 1959, 72 percent of U.S. sugar imports were of Cuban origin. If Cuba were granted that same share of 1999 U.S. imports of sugar (1.64 million metric tons), the total amount Cuba would ship to the United States would be 1.18 million metric tons, which is probably not feasible.

[183] The specific over-quota rate for raw and refined sugar is 15.36 cents per pound.

[184] Ad valorem tariff rate based on 1999 average world price for raw sugar.

[185] USDA, ERS, "A History of Sugar Marketing," Agricultural Economic Report No. 197, Feb. 1971.

Cuba's national income and more than 80 percent of its total export revenue.[186] From the early 1900s until the imposition of sanctions, Cuba's primary export market was the United States, and Cuba depended upon access to the U.S. market for over a half of its total annual exports. In the 5 years prior to the U.S. suspension of imports of Cuban sugar in 1960, 72 percent of the total annual U.S. import quota for sugar was allocated to Cuba, and U.S. sugar imports from Cuba averaged almost 3 million metric tons per year. In 1959 Cuba was given the equivalent of $114 million from the United States for its sugar exports in the form of preferential access.[187] Cuba and the United States were interdependent in regard to sugar, with Cuba offering a cost effective, steady, proximate supply of raw sugar to the United States, and the United States offering a guaranteed market for a major portion of Cuba's exports.

Following the imposition of sanctions, Cuba's sugar quota was permanently reallocated to other sugar-producing nations and to U.S. cane and beet producers.[188] Immediately, Cuba was left with the task of finding alternate outlets for its primary export commodity. Cuba diverted its sugar exports away from market economies and toward centrally planned economies–the Soviet Union, Eastern European countries, and China.[189] The Soviet Union took the most prominent role and replaced the United States as Cuba's major export market; by 1970, the Soviet Union accounted for 45 percent of Cuba's sugar exports.

For nearly three decades, 1960-1990, Cuba's economy was dependent upon its trade ties with the Soviet Union, primarily owing to the premium it received for its sugar,[190] and during those 30 years, Cuba received over $65 billion in Soviet assistance through sugar trade.[191] It was reported that in 1988 the Soviet Union paid the equivalent of

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[186] Anuario Azucarero de Cuba, *Censo de la Industria Azucarera de Cuba y Manual Estadistico Nacional e Internacional*, Volumen XXIII, 1959.

[187] In 1959, the world price for raw sugar averaged 3.87 cents per pound, and Cuban sugar received 6.24 cents per pound in the U.S. market, a premium of 2.38 cents per pound. Cuba exported 4.78 billion pounds of sugar to the United States in 1959.

[188] Associated with the imposition of sanctions, the Cuban sugar industry was negatively impacted by two factors in the late 1950s and early 1960s. First, the expropriation of properties owned by Cuban, U.S., and other foreign corporations and the subsequent nationalization of Cuba's sugar mills, refineries, and cane-producing land. In total, the Cuban Government reportedly expropriated all 161 sugar mills (representing approximately 65,000 sugarcane growers) and 18 refineries operating in Cuba. This led to the exodus of professional cane cutters, skilled mechanics, technologists, farmers, millers, and refiners. Knowledge and expertise were transferred from Cuba to neighboring countries such as Dominican Republic and the United States. Second, under the newly formed, centrally controlled government, foreign investment was banned, so the industry was lacking in the investment capital it required for adequately maintaining mills, refineries, electrical plants, machinery, roads, and railways. For further details, see Silvestre Pina, President, Sugar Cane Growers Association of Cuba, written submission to the Commission, received Oct. 4, 2000; Nicolas J. Gutierrez, Secretary and General Counsel to the National Association of Sugar Mill Owners of Cuba, testimony before the USITC, Sept. 20, 2000, transcript, p. 436.

[189] C. Suan Tan, "Cuba–USSR Sugar Trade," World Bank, Commodity Studies and Projections Division Working Paper, No. 1986-2, June 1986.

[190] In 1964, Cuba and the Soviet Union entered into a bilateral agreement under which the Soviet Union agreed to purchase sugar from Cuba mainly by barter (i.e., sugar for oil) in increased amounts starting at a price slightly above the world price.

[191] Antonio Gayoso, Sugar Producers of Cuba, testimony before the USITC, Sept. 20, 2000, transcript, p. 514.

about 42 cents per pound for sugar when the world price averaged 10 cents per pound, a premium of 32 cents per pound.[192] Cuba also maintained trade relations with nonsocialist countries such as Japan and Canada for access to convertible currencies to allow Cuba to purchase capital goods that were not available in the Soviet bloc.

The impact of U.S. economic sanctions with respect to Cuba was not truly felt until the collapse of the Soviet Union, for without Soviet subsidies or preferential access to the U.S. sugar market, Cuba was forced to compete against other sugar producers for market share. The impacts have been extreme: annual production of sugar has hovered around 4 million metric tons since 1993, reaching a record low of 3.2 million metric tons in 1999; production yields have fallen—34 percent since 1989—to 14.6 metric tons per acre in 1999;[193] land in production has declined for lack of laborers and necessary inputs; cost of production has increased to approximately $200 per metric ton when the world price averaged $144 per metric ton in 1999; the country's world export share fell to 9 percent and export earnings fell below $500 million in 1999; 28 percent of mills have been idled for lack of maintenance and necessary equipment; and capacity utilization in the remaining mills fell to 71 percent in 1999.[194] Partly owing to sanctions, the Cuban sugar industry suffers from a lack of capital investment.

The effects on the Cuban sugar industry of lifting U.S. economic sanctions depend upon the type of trading arrangement agreed upon between the two countries. As mentioned above, the effects depend upon whether Cuba would be granted quota access to the U.S. sugar market and upon the quantity of access granted.

Finally, the investment climate in Cuba would be an important factor in determining the current impact of lifting sanctions by the United States. Foreign investment in the Cuban sugar industry would probably be limited until property rights were clearly defined and expropriation claims settled.[195] The Cuban sugar industry has substantial production capacity, and supplied with the appropriate amount of capital, the industry could become highly competitive in world markets. Foreign investment, along with

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[192] Peter Buzzanell, "Latin America's Big Three Sugar Producers in Transition: Cuba, Mexico, and Brazil." USDA, ERS, Agriculture Information Bulletin No. 656, 1992.

[193] Lazaro Peña Castellanos and José Alvarez, *The Cuban Sugar Agroindustry and the International Sweetener Market in the 1990s: Implications for the Future*. International Working Paper Series, IW 00-1, International Agricultural Trade and Development Center, Food and Resource Economics Department, University of Florida, Gainesville, FL, Jan. 2000.

[194] "Third Estimate of the World Sugar Balance, 1999-2000," *F.O. Licht's International Sugar and Sweetener Report*, vol. 132, no. 23, Aug. 7, 2000.

[195] Reportedly 161 mills and 18 refineries, many of U.S. ownership, were seized by the Cuban Government. Of the 10 largest claims made by U.S. corporations in 1960 against the Cuban Government, 5, ranging from $59 million to $97 million, were made by sugar companies. Organizations comprised of U.S. and Cuban nationals are devoted to reclaiming these properties. Matias F. Travesio-Diaz, "Alternative Remedies in a Negotiated Settlement of the U.S. Nationals' Expropriation Claims Against Cuba," *University of Pennsylvania Journal of International Economic Law*, vol. 17, no. 2, 1996; Nicolas J. Gutierrez, Secretary and General Counsel to the National Association of Sugar Mill Owners of Cuba, written submission to the Commission, received Sept. 12, 2000; and José E. Lopez-Silvero, President, Sugar Producers of Cuba, Inc., written submission to the Commission, received Sept. 12, 2000.

trade with the United States in fertilizer, technology, fuel, pesticides, herbicides, and machinery, would greatly benefit the Cuban industry. The most likely effects would be increased production levels of raw sugar and of higher value by-products and sugar derivatives, higher capacity utilization levels, increased yields, and a reduction in production costs.

Distilled Spirits[196]

The United States is the world's leading producer, consumer, and importer of distilled spirits. In 1999, U.S. production amounted to $3.2 billion and remained relatively stable during 1995-99. Imports made up almost 50 percent of U.S. domestic consumption in 1999. Imports reached $2.4 billion in 1999, almost 50 percent higher than in 1995, with major suppliers being the EU and Canada. U.S. exports, which consist of mainly whiskey, reached $440 million in 1999. U.S. producers are fully integrated into the international distilled-spirits industry, which is characterized by large, multinational producers and suppliers.

Cuban production of distilled spirits is estimated to represent about 200,000 hectoliters of pure alcohol in 1999, of mainly rum and *aguardientes*, both derived from sugarcane. Cuban exports, consisting primarily of rum, amounted to $100 million in 1998, with Spain, Italy, and Germany the leading markets for these shipments. Distilled spirits are also an important source of foreign exchange for the Cuban economy, accounting for as much as 30 percent of local hard-currency sales.[197] Cuba imports a small volume of distilled spirits primarily for tourist establishments and hard-currency stores.[198]

Historical and Current Impact of Sanctions on the United States

The historical impact of sanctions and loss of the Cuban market on the U.S. distilled spirits industry was probably negligible. Cuba was the second leading supplier of imported rum to the United States after Jamaica, shipping about 60,000 proof gallons, valued at $366,000 in 1959.[199] However, immediately following the introduction of sanctions, shipments of rum from Jamaica and other supplier countries increased and offset the loss of shipments from Cuba. As a result, the overall level of shipments remained relatively stable following the imposition of sanctions, and the

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[196] Distilled spirits includes white spirits (such as vodka, rum, and gin), brown spirits (such as whiskey and brandy), and specialty spirits (such as liqueurs and mixed cocktails).

[197] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 3-43.

[198] Further background on the U.S. and Cuban distilled spirits sectors can be found in Appendix G, tables G-23a through G-23d.

[199] Official statistics of the U.S. Department of Commerce.

impact on U.S. consumers was probably negligible in terms of availability of supply and prices. Cuba represented a very small share of U.S. exports of distilled spirits prior to the imposition of sanctions. U.S. exports to Cuba totaled about 4,000 proof gallons valued at $24,000 in 1959, compared with total U.S. exports of over 1.5 million proof gallons, valued at over $4 million.

Overall, the current impact of sanctions on the U.S. distilled spirits industry is small. However, in the absence of sanctions, Pernod Ricard, a global producer and supplier, which has a joint venture agreement with the Cuban state producer Havana Rum and Liquors to market the rum brand "Havana Club,"[200] would be likely to significantly increase exports of rum to the United States. Such exports would compete directly with U.S.-produced rum, including the Bacardi rum brand and other rum producers in the U.S. customs territory.[201]

The Commission estimates that U.S. rum imports from Cuba would total $15 million to $25 million in the absence of sanctions, based on average 1996-98 trade data, under column 1-general duty rates of 13 cents per proof liter.[202] Column 2 duty rates of $1.32 per proof liter would not be prohibitive, but Cuban rum would be significantly more expensive than domestically produced rum, limiting imports to high-quality and high-valued Cuban rums. In the longer term, U.S. producers would probably attempt to invest in Cuba, as has a leading European producer, to service the tourist sector and to take advantage of increasing world demand for Cuba's national distilled spirit.

Competition between U.S. and other international producers for the Cuban market would affect the U.S. distilled spirits industry, although four of the five leading U.S. distilled spirits companies are subsidiaries of multinational spirits producers. In the short run, wholly owned U.S. producers would face a more difficult task of entering the Cuban market; however, in the absence of sanctions an inflow of tourists from the United States would probably increase demand for U.S. spirits to service this sector.

Historical and Current Impact of Sanctions on Cuba

The historical impact of sanctions on the Cuban distilled spirits sector was significant. Prior to the imposition of sanctions the United States was Cuba's leading export market and sales to the United States provided an important source of external revenue. In addition, demand for rum in Cuba's domestic market was dampened as the flow of U.S. tourists and other foreign nationals stopped. From the 1960s through most of the 1980s, Cuban production and exports of rum declined markedly, with export

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[200] The leading rum export brand produced in Cuba.

[201] A trademark dispute between the EU on behalf of France and Bacardi over the trademark "Havana Club" has been subject to court action in the United States and dispute settlement at the WTO. Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 3-43.

[202] Although most distilled spirits enter the United States free of duty, certain categories of rum are subject to tariffs.

shipments during the period destined mainly for the Soviet Union.[203] While the Cuban domestic industry declined, Bacardi, once a major producer of rum in Cuba, became one of the world's leading distilled spirits manufacturers and currently produces Bacardi Rum, the leading distilled spirit brand marketed worldwide.

In the absence of sanctions, the large and lucrative U.S. market for distilled spirits would be open to exports from Cuba. The Commission estimates that Cuban rum exports to the United States could be between $15 million and $25 million, but over the longer term, exports could significantly exceed this amount. In particular, having access to Pernod Ricard's worldwide distribution network as well as the cachet of the "Havana Club" label likely will make Cuban rum increasingly competitive with rum from Puerto Rico in the U.S. market. Cuban rum may also constitute an increasing threat to Bacardi's dominance in world markets.[204]

Cigars

The United States is the world's leading producer and consumer of cigars with production amounting to 4.5 billion cigars in 1998. Most cigars currently produced in the United States are machine made, while imports, which account for about 20 percent of domestic consumption, are primarily high value hand-rolled cigars. The major import suppliers to the U.S. market are Dominican Republic, Honduras, and Jamaica. U.S. cigar imports expanded dramatically during the U.S. cigar boom of the 1990s, reaching more than $400 million in 1997 before declining to $278 million in 1999. The U.S. cigar industry is highly integrated into the global industry, with two of the three largest U.S. producers owned by European companies.

Cuba is the second-leading world producer and exporter of premium hand-rolled cigars after Dominican Republic. Cuban cigar exports, estimated at 150 million cigars in 1999, expanded by 173 percent during 1995-99, owing to increased investment in production capacity. Cigars are the second-leading agricultural export by value after sugar and are an important source of foreign exchange for the Cuban economy. The tremendous growth in production, however, has created shortages in suitably cured cigar leaf and trained hand-rollers, raising concern about quality control for the industry. Strong demand for premium Cuban cigars in world markets has created increased production of counterfeit premium cigars[205] both inside and outside Cuba.[206]

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[203] In addition to the impact of sanctions, the industry suffered because Cuban companies that produced rum and lower-value *aguardientes* were wholly-owned by Cuban nationals who left Cuba in the late 1950s and early 1960s. This created a void of marketing knowledge, technical expertise, and capital for the industry. Consequently, the Government of Cuba lacked sufficient investment capital to maintain and upgrade distilled spirits plants and equipment, so that investment and output decreased after 1959."Cuba's rum and liquor industry showing substantial improvement," *CubaNews*, Dec. 1999.

[204] Ibid.

[205] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 3-33.

[206] Further background on the U.S. and Cuban cigar sectors can be found in Appendix G, tables G-24a through G-24d.

Historical and Current Impact of Sanctions on the United States

Sanctions with respect to Cuba had a significant impact on the U.S. domestic cigar industry. Prior to the imposition of U.S. sanctions, Cuba was nearly the exclusive foreign supplier of tobacco used by U.S. cigar makers.[207] According to the Cigar Association of America Inc., between 25 and 30 percent of cigar filler tobaccos used by U.S. cigar producers was supplied by Cuba in the late 1950s, and 95 percent of the 170 million premium hand-rolled cigars (containing 100 percent Cuban tobacco) consumed in the United States was produced domestically.[208] In addition, as much as one-third of the tobacco in popularly priced U.S.-manufactured cigars contained Cuban tobacco.[209]

Given the U.S. cigar industry's dependence on Cuba as a source of cigar leaf inputs for domestic cigar production and U.S. consumers' preference for Cuban cigars, the economic sanctions forced U.S. cigar companies to develop alternative supply sources, many in the Caribbean Basin, and new supplies that had characteristics similar to those of the highly prized Cuban tobaccos.[210] The restructuring of supply sources required large amounts of investment capital and time in order to provide sufficient quantities of alternative tobacco for the U.S. cigar industry.

In the absence of sanctions, U.S. firms would probably try to invest in Cuba in order to ship Cuban cigars to the United States and other large markets.[211] However, three of the four leading U.S. cigar manufacturers are subsidiaries of European companies, their parent companies are not currently subject to the U.S. sanctions prohibiting investment in Cuba. For instance, Altadis, the world's leading cigar producer, with 25 percent of the world market, owns the largest U.S. producer (Consolidated Cigar Corporation) and already operates in Cuba. Under a joint venture agreement, Altadis provided $500 million to the Cuban state cigar company, Corporación Habanos, S.A. (Habanos), for a 50 percent share of Habanos and the sole internationally marketing rights for Cuban cigars. In the absence of sanctions, Altadis would have exclusive rights to ship Cuban cigars to the United States. Thus, other U.S. cigar producers and importers who own or import from manufacturing facilities in Dominican Republic and other premium tobacco-producing countries would likely face import competition from Cuban cigars in the U.S. market.

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[207] Cuba shipped almost 13 million pounds of cigar filler valued at over $17 million in 1959, which accounted for over 98 percent of U.S. imports. Shipments of cigar-wrapper tobacco totaling 532,000 pounds, valued at $2.1 million, represented 89 percent of all U.S. wrapper-leaf imports. All leaf tobacco imported from Cuba, including scrap tobacco, amounted to almost $29 million in 1959, while imports of Cuban cigars totaled over 24 million units valued at over $4 million. Statistics calculated by the Commission staff using official data from the U.S. Department of Commerce.

[208] Cigar Association of America Inc., written submission to Commission, Sept. 30, 1993.

[209] Cigar Association of America Inc., facsimile transmission to Commission staff, Aug. 4, 2000.

[210] Cigar Association of America Inc., letter to the Honorable Michael Kantor, U.S. Trade Representative, Sept. 15, 1994.

[211] Telephone survey responses from a number of U.S. cigar companies indicated that while they would be interested in investing in Cuba, investment would take place only if there was a change in the current Cuban Government. These companies also expressed concern about the issue of expropriation.

Initially, U.S. consumers would be likely to shift demand to Cuban-produced cigars because of the reputation for quality and from pent-up demand, although the impact would mainly be on high-value, premium hand-rolled cigars produced in the Caribbean, particularly in Dominican Republic. However, the Habanos-Altadis joint venture company is reportedly investing in new facilities to produce machine-made cigars in Cuba for export markets. These relatively inexpensive cigars are the largest segment of the 14 billion cigar world market and are the largest segment of the U.S. cigar market.[212]

A potential constraint on Cuban cigar exports to the United States is quality control in Cuban manufacturing, which reportedly has not kept pace with the rapid expansion of production during the second half of the 1990s.[213] Industry sources report while U.S. consumers may try Cuban cigars, the shift in demand is not likely to cause a severe decline in demand for non-Cuban premium cigars, especially if Cuban manufacturers increase production without maintaining quality.[214]

Given the shortage of Cuban cigar tobacco and the current production level of 150 million cigars principally shipped to Europe, the Commission estimates that U.S. imports of Cuban cigars would total $15 million to $30 million annually over the first several years in the absence of sanctions, representing about 15 percent to 30 percent of total Cuban cigar exports and a 10 to 25 percent share of U.S. premium cigar imports.[215] This estimate assumes Cuba would face the low column 1-general duty rates, that range from 57 cents per kilogram to $1.89 per kilogram plus 1.4 to 4.7 percent ad valorem. If Cuban cigars were subject to column 2 rates of duty, $9.92 per kilogram plus 25 percent, trade would still take place but at significantly lower levels than under general duty rates. Over the longer term, with increased investment in leaf growing and manufacturing capacity, U.S. industry representatives believe U.S. imports of Cuban premium hand-rolled cigars could rival imports from Dominican Republic.[216]

Historical and Current Impact of Sanctions on Cuba

U.S. economic sanctions had a less dramatic impact on the Cuban cigar industry than on the U.S. industry. At the peak of Cuban cigar tobacco production in 1957, the United States imported about 22 percent of Cuban production. Cuban production peaked at 724 million cigars in 1968, 6 years after sanctions were instituted, indicating that the United States was not an essential market for Cuban cigar exports.[217] Cuba found other markets, principally in Europe, to make up for the loss of the U.S. market.

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[212] "Altadis, Habanos venture seeks to boost sales in sagging market," *CubaNews*, Jan. 2000.

[213] Cigar Association of America Inc., facsimile transmission to the Commission staff, Aug. 4, 2000.

[214] Commission staff conversation with cigar industry representative, July 27, 2000.

[215] Estimate based on Commission staff discussion with cigar industry representatives.

[216] Cuba does not represent a potential market for U.S. exports of cigars; the only trade flow to arise from a resumption of trade would be Cuban exports to the United States, because U.S. exports of cigars to all countries amounted to only 119,000 units compared to the nearly 4 billion cigars produced in 1999.

[217] See note 210.

In the absence of sanctions, the Cuban cigar industry would benefit significantly from access to the U.S. market. The likely impact would be an increase in investment in Cuban production of both premium hand-rolled cigars and machine-made, lower-cost cigars that could compete in the huge U.S. market. However, Cuba must address serious production constraints, notably low yields of cigar tobacco, before output can be substantially increased.[218]

Given the shortage of cigar tobacco in the country, it is unlikely that Cuba will export tobacco to manufacturers in the United States, at least not in the short term. Additional demand from the United States could also exacerbate the problems of counterfeit cigars, produced in Cuba and other Caribbean countries, that are tarnishing the image of the superior quality of the Cuban cigar.

Seafood

U.S. seafood production totaled almost $7 billion in 1999, representing about 6 percent of world production. Approximately a third of 1999 production was exported, mainly to Japan, Canada, and Korea. Important export items included frozen Pacific salmon, surimi (a seafood blend), and roe (eggs).

U.S. consumption of seafood reached a record of almost $13 billion in 1999, up by 12 percent over the 1995-98 average. Almost two-thirds of total consumption is supplied by imports, which reached a record $8.9 billion in 1999. The principal suppliers of U.S. imports are Canada, Thailand, and Ecuador. The main imported products include frozen shrimp, canned tuna, and ground-fish blocks (used to make breaded fish sticks and portions).

Cuban production of fish products totaled $100 million in 1998, down sharply from 1995 when production reached $175 million. During most of the 1990s, seafood was Cuba's third-leading export earner, behind sugar and nickel; and in 1998 seafood exports amounted to $98 million. Spain accounted for almost half of total exports in 1997, while other important markets included Japan and France. Cuba's industry, like that of the United States, was affected by temporary disruptions in Asian financial markets, which depressed the prices it received for its exports. Spiny lobsters make up the vast majority of Cuban fish exports. Apparent consumption of seafood in Cuba declined from $76 million in 1995 to $52 million in 1997, about a third of which was supplied by imports, primarily frozen seafood. A dynamic segment of the Cuban seafood market involves supplying the tourism sector; as tourist visits to Cuba have

[218] The shortage of tobacco is a serious problem for Cuban producers. For example, cigar tobacco is typically aged for at least 2 years; however, to keep pace with strong demand brought about by the creation of new production facilities and the recent introduction of at least nine new brands, cigars are being produced with unaged, inferior leaf, which is diminishing cigar quality. In addition, there is a shortage of suitable tobacco-growing farmland. Joseph M. Perry, Louis A. Woods, Stephen L. Shapiro, and Jeffrey W. Steagall, "The Cuban Cigar Industry As The Transition Approaches," *Cuba in Transition–Volume 8*, (Washington: Association for the Study of the Cuban Economy, 1998), pp. 414-28.

grown in recent years, so has the domestic demand for spiny lobster and other seafood.[219]

Historical and Current Impact of Sanctions on the United States

Historically, U.S. production and sales of seafood were not measurably affected by the sanctions. The sanctions did not affect U.S. costs of production nor did they cause any measurable change in industry employment because potential U.S. exports to and imports from Cuba were a small fraction of overall industry trade. Prior to the imposition of U.S. sanctions, Cuban and U.S. fishing fleets competed on the high seas[220] where harvesters fished the same stocks; industry sources note that Florida vessels used Cuban ports for repair or resupply purposes. However, little trade took place in seafood between Cuba and the United States.

In the absence of sanctions, Cuba would probably supply only a minor share of total U.S. seafood imports, because although Cuba is a medium-size part of the Caribbean seafood sector, the Caribbean plays a minor role in U.S. seafood trade.[221] The Commission estimates that U.S. exports of seafood to Cuba would total $1 million to $2 million annually in the absence of sanctions, based on average 1996-98 trade data, representing 5 to 10 percent of total Cuban seafood imports (and a mere 0.03 percent of U.S. production).

While the effect of lifting sanctions on the U.S. seafood sector as a whole would be minimal, certain products could be significantly affected. In particular, spiny lobster sold live, fresh, frozen, or cooked is a valuable product of the Florida seafood industry.[222] The absence of sanctions would create competition for the Florida fish

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[219] Further background on the U.S. and Cuban seafood sectors can be found in Appendix G, tables G-25a through G-25d.

[220] Competition on the high seas (i.e., seas outside any national jurisdictions) continued in the 1960s and into the mid 1970s until both nations extended their fishery conservation zone (FCZ) to 200 nautical miles from shore. (Previously the FCZ extended only to the 12-mile territorial limit.) The resulting overlap between the Cuban and U.S. maritime boundaries was resolved in the usual manner by measuring a line equidistant from each nation's coastline. The FCZ extensions by many countries effectively eliminated most of the high seas in the Gulf and Caribbean regions. Since that time, bilateral issues relating to fishing activity have fallen under the authority of the United Nations Convention on the Law of the Sea (UNCLOS). Each nation manages the fish resources within its own maritime boundary (for the United States, the boundary surrounds Puerto Rico and the U.S. Virgin Islands as well as the States). Further information on the UNCLOS may be found on the Internet at *http://www.un.org/Depts/los/index.htm.*

[221] U.S. seafood imports from Caribbean countries totaled about 80,000 metric tons, valued at $564 million, in 1997 (the latest year for which a complete set of U.S. and FAO data are available), or about 7 percent by value of all U.S. seafood imports and 2 percent of U.S. seafood consumption. U.S. seafood exports to Caribbean countries totaled about 8,000 metric tons, valued at $25 million, in 1997, or about 0.9 percent by value of all U.S. seafood exports and 0.4 percent of U.S. seafood production. In 1997, the United States accounted for about 10 percent of the region's global exports (by value) and 8 percent of its imports.

[222] In 1997, FAO reported that world production of spiny lobster (concentrated in the Caribbean region) totaled 19,000 metric tons, of which Cuba supplied 5,300 metric tons (30 percent) and the United States, 827 metric tons (4 percent). (FAO statistics on U.S. production fall substantially short of

industry, particularly by Cuban sales to U.S. restaurants and other institutions. Both spiny lobster and shrimp are harvested by U.S. fishermen in the Gulf, Caribbean, and South Atlantic areas, but in quantities that are limited both by U.S. fishery regulations and natural constraints.[223] Domestic supplies are therefore not highly responsive to price changes, and year-to-year changes in production are largely determined by environmental impacts on abundance. In recent years, growing U.S. demand for these shellfish has been supplied by imports.[224] Cuban exports (diverted, as noted, from other export markets) would probably reduce prices for these seafoods but not significantly reduce the volume produced in the United States. The extent of the price depression could be significant because of the large size of the Cuban spiny lobster production compared to its U.S. rival.[225]

Historical and Current Impact of Sanctions on Cuba

In contrast to the U.S. sector, the sanctions had a significant negative impact on U.S. demand for Cuban seafood exports and, as a result, on Cuban export and distribution costs. In particular, the loss of the U.S. market forced Cuba to establish markets farther away, including Spain, France, and Japan. These markets are now well established but reportedly required several years to develop. The added transportation cost to these markets, of course, continues.

Prior to the imposition of sanctions, tourism (primarily visitors from the United States) in Cuba spurred much of the demand for seafood from the Cuban seafood industry; even today, Cuban demand for some products, such as spiny lobster, remains directly tied to the level of tourism activity. Thus, the loss of U.S. tourists resulting from the imposition of U.S. sanctions has had a significant adverse impact on certain sectors of the Cuban seafood industry.[226]

The current impact of sanctions on the Cuban seafood industry is significant. Access to the U.S. market would provide a significant investment incentive to encourage growth of the Cuban fishing industry to achieve economies of scale that would reduce costs and make the industry more competitive; such investment probably would reduce net employment, as large-scale fishing is more capital-intensive than artisanal fishing. Japan, which in recent years has invested much more heavily than the United States in

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[222]—*Continued*
U.S. Government statistics.) In 1997, according to data supplied by the National Marine Fisheries Service of the U.S. Department of Commerce, U.S. harvesters (located almost entirely in Florida) landed 3,224 metric tons of spiny lobster, at an ex-vessel, or dockside, value of $29.1 million. Spiny lobster is a significant export item, but industry sources report that it is more valuable in the Cuban tourist sector; tourists account for most of the domestic lobster market in Cuba and other Caribbean nations. When, as in Cuba recently, spiny lobster supplies dwindle, they must be imported to satisfy tourist demand.

[223] Gulf of Mexico Fishery Management Council, communication with Commission staff, Aug. 16, 2000.

[224] National Marine Fisheries Service, *Fisheries of the United States*, Current Fisheries Statistics Series No. 9800, National Oceanic and Atmospheric Administration, U.S. Department of Commerce (annual; various issues).

[225] According to the FAO, Cuban production of spiny (rock) lobster (HTS item 0406.11) averaged 5,990 metric tons annually during 1995-98. During the same period, the Commerce Department reported that U.S. production averaged 3,330 metric tons annually. FAO data do not separately report Cuban exports of spiny lobster.

[226] See chapter 4 for further discussion of tourism.

the Latin American seafood industry, is a possible source of investment capital. In addition, Mexico and Canada have begun investing in Cuban aquiculture; Italy and Spain also have made recent investments in fish processing in Cuba.[227] A larger export market would add further incentives to such investment. As U.S. fish industry investment in other Caribbean nations currently is limited, it seems unlikely that the United States would be a significant source of such foreign investment.

In the case of tuna, Cuban exporters have two potential market channels, the retail trade for fresh tuna (distributed by restaurants and fishmongers) and the cannery sector for frozen tuna. Currently the small number of tuna canneries in Puerto Rico obtain the majority of their raw tuna needs from imports. Such imports from Cuba would likely displace imports from other sources, not U.S.-harvested tuna. Cuban canned tuna production, which collapsed after the fall of the Soviet bloc, could conceivably compete with U.S. canned tuna production in the future. However, the impact would be minimal for several reasons, including the significant brand reputation and loyalty enjoyed by U.S. canners in the U.S. market, which make it difficult for any new brands to succeed.[228]

Production of certain seafoods in Cuba faces constraints in the available natural resource supply. Spiny lobster, for example, is being harvested at or near maximum capacity,[229] although the Cuban Government has effective fishery management tools by which harvesting is restricted in fisheries that are depleted.[230] Cuban fisheries management and seafood marketing are also becoming more decentralized, which may enable a more efficient marketing of high-value seafoods such as spiny lobster, shrimp, and fresh tuna—all of which have a ready market in the United States.[231] Access to the U.S. market would raise revenues to the Cuban industry by raising prices, not by enabling an increase in the volume sold, although trade may be diverted from output currently marketed in Japan and Europe to enable an increase in exports to the United States. U.S. imports from Cuba could amount to $5 million to $11 million annually,[232] representing 5 to 10 percent of Cuba's seafood exports, but only 0.3 to 0.5 percent of total U.S. seafood imports.

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[227] U.S.-Cuban Trade and Economic Council, Inc., "Companies from Spain and Italy to Renovate Fish Processing Facilities in Cuba," *Economic Eye on Cuba*, Jan. 22-28, 2000, p. 3.

[228] USITC, *Competitive Conditions in the U.S. Tuna Industry*, Report to the President on Investigation No. 332-224, USITC Publication 1912 (Oct. 1986).

[229] Commission staff communication with Caribbean Fishery Management Council (USDOC), Aug. 16, 2000.

[230] Commission staff communication with National Marine Fisheries Service (USDOC), Aug. 16, 2000.

[231] Chuck Adams, "An Overview of the Cuban Commercial Fishing Industry and Implications to the Florida Seafood Industry of Renewed Trade," International Working Paper No. IW98-3, Food and Resource Economics Department, University of Florida, May 1998, pp. 6-8.

[232] These estimates, based on the percentages of Cuban and Caribbean production and trade discussed earlier, are upper-bound figures, excluding the probable effects of trade diversion.

Cuban seafood exports to the U.S. market would be subject to import tariffs and, if circumstances warrant, also to regulations relating to the Marine Mammal Protection Act and the Endangered Species Act.[233] U.S. imports of spiny lobster from Cuba would be subject to a duty rate of "Free" (whether under column 1-general or column 2 rates of duty).

[233] The Marine Mammal Protection Act and the Endangered Species Act each provide for import restraints (quotas or embargoes) when a foreign nation's fishing industry acts in ways that harm or kill marine mammals and endangered species. In the Gulf and Caribbean regions, the principal application of these provisions in recent years has been a number of embargoes on shrimp imports from nations whose harvesters insufficiently protect sea turtles.

CHAPTER 6
Economic Impact on Intermediate and Manufactured Goods

Introduction

This chapter analyzes the historical and current impact of U.S. sanctions with respect to Cuba on U.S.-Cuban bilateral trade and investment in intermediate and manufactured goods. Manufactured goods contribute significantly to the U.S. economy in terms of production, exports, and employment.[1] In 1997, the value of U.S. production of manufactured goods reached $1.4 trillion and accounted for about 17 percent of U.S. GDP. Employment in the intermediate and manufactured goods sectors was roughly 19 million jobs in 1997, representing 15 percent of the nation's labor force (as measured by employees on nonagricultural payroll). International trade in these sectors is also considerable, with exports of $621 billion in 1998 and imports of $880 billion. Owing to the importance of trade for many U.S. industries, several major U.S. corporations have voiced concern over U.S. economic sanctions with respect to Cuba, and the U.S. Chamber of Commerce has been especially vocal in calling for a change to this policy.[2]

The historical impact of sanctions on several intermediate and manufactured goods industries is discussed mainly in terms of forgone investment and trade between the two countries since the time sanctions were imposed, while the current impact is analyzed in terms of potential trading and investment between the two countries in the absence of sanctions. As throughout this report, the analysis assumes no other policy changes are made (such as economic reform in Cuba, change in Cuba's political leadership, loosening of Government controls over trade and investment, and better access to international credit and financial markets) other than the lifting of sanctions.

Given that there has been virtually no U.S.-Cuban trade since the early 1960s, the analysis of the current impact of U.S. sanctions with respect to Cuba relied on estimating what U.S.-Cuban bilateral trade and investment flows might have been during a recent time period in the absence of sanctions. Industries were selected for this chapter based on many criteria. Generally, industries were selected if:

- trade between the two countries prior to the imposition of sanctions, especially in the late 1950s, was significant;

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[1] Information on the role of the manufacturing sector in the U.S. economy is taken from *Economic Report of the President*, transmitted to Congress Feb. 1999, U.S. Government Printing Office.

[2] Tom Donohue, President and CEO, U.S. Chamber of Commerce, at conference, "The Domestic Impact of U.S. Unilateral Food and Medical Sanctions: Case Study of Cuba," World Policy Institute, June 15, 2000.

- the United States is internationally competitive and a significant exporting country to world markets, especially the Caribbean;
- Cuba is a significant importer from world markets, especially Canada and Europe; and
- U.S. industry leaders and representatives have argued that trade would be significant in the absence of sanctions.

Using these criteria, industries included are fertilizers and pesticides, pharmaceuticals, several types of machinery, electronics goods, medical equipment, steel, tires, and plastics. Industries were also included if Cuba is internationally competitive and is a significant exporting country to world markets, especially to Canada and Europe. These industries include nickel and cobalt, cement, and textiles and apparel.

Each industry analysis estimates U.S.-Cuban bilateral trade in the absence of sanctions, based on Cuba's average annual trade during 1996-98, assuming no economic policy and political changes in Cuba. In a few cases, other estimates of U.S.-Cuban trade based on an array of assumptions about economic growth, and future management of the Cuban economy, were reported to the Commission by industry sources, and are also noted.

As indicated in chapter 1, the background information and analysis presented in this chapter, as well as estimates of U.S.-Cuba trade in the absence of sanctions, are based on several sources, including academic reports and industry publications, government trade statistics, interviews with industry representatives, the results of the Commission telephone survey of U.S. companies and trade associations, hearing testimony and written submissions, Commission travel within the United States and Cuba, and gravity model estimates.[3]

Fertilizer and Pesticide Products[4]

In 1999, the value of U.S. fertilizer production reached $10 billion, making the United States the world's largest producer of finished fertilizers,[5] phosphate rock mineral, and sulfur. Almost a third of U.S. production is exported, mainly to China, India, and Australia, and the United States is the world's largest exporter of finished phosphate fertilizers. The United States is also the world's largest importer of anhydrous ammonia and potash, most of which comes from Russia, Trinidad and Tobago, and Canada. Cuba is a minor player in the world fertilizer market in terms of production, consumption, and trade. Almost all Cuban fertilizer consumption is imported and consists mainly of finished fertilizers, sulfur, and ammonia from Russia, Tunisia, and Canada.

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[3] The gravity model is discussed in Appendix F.

[4] Fertilizer refers to nitrogenous fertilizers, phosphate fertilizer, and potassium (potash) fertilizers. Pesticide products include not only the relatively new, sophisticated synthetic organic products, but also older products, such as elemental sulfur and petroleum.

[5] Finished fertilizers are manufactured fertilizer products ready for use on crops without further processing.

U.S. production of pesticide products reached more than $5 billion in 1999, making the United States one of the largest producing countries in the world. The U.S. industry is composed primarily of large, multinational, multiproduct chemical companies, and is among the world leaders in research and development. In 1999, two-thirds of U.S. production of pesticides was exported, with major markets including Canada, Brazil, and France. The United States also imports about $1 billion of pesticides annually. Cuba is a net importer of pesticides, importing product mainly from the European Union (EU) and Colombia, while also exporting small quantities to Brazil, Bolivia, and Nicaragua.[6]

Historical and Current Impact of Sanctions on the United States

The historical impact of sanctions was small because, although Cuba was a small but important outlet for U.S. fertilizers and pesticide products at the time sanctions were imposed,[7] U.S. exporters were able to find alternative markets for their products relatively quickly. Industry sources indicate that the amount of U.S. investment in the Cuban fertilizer and pesticide sectors prior to sanctions was minimal because of the small size of the Cuban industry during that period.[8] The United States did not import fertilizer or pesticides from Cuba prior to sanctions, nor was it likely to have during the period in which the sanctions were in place.[9]

The current impact of sanctions on the U.S. fertilizer and pesticide industries is small but measurable. U.S. fertilizers could potentially be exported to Cuba, including phosphates, potassium (potash), nitrogenous fertilizer,[10] and sulfur.[11] The close proximity of a large phosphate industry in Florida and a large nitrogen fertilizer industry near the U.S. Gulf would make the United States a natural supplier to Cuba. Potash shipments from New Mexico and Utah are possible, especially potassium sulfate.[12] However, Cuba's current trade partners may have an advantage at current low-level trade volumes because of existing trade agreements. Investment in Cuba for

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[6] Further background on the U.S. and Cuban fertilizer and pesticide sectors can be found in Appendix G, tables G-26 and G-27.

[7] For example, U.S. fertilizer shipments to Cuba in 1959 amounted to $5.5 million, representing about 7 percent of total U.S. fertilizer exports of $80 million. U.S. Department of Commerce, Bureau of the Census, *U.S. Exports of Domestic and Foreign Merchandise, Commodity by Country of Destination*, Report FT410, 1959, pp. 235-236.

[8] Industry representative, telephone interview with Commission staff, Oct. 2000.

[9] Ibid.

[10] Currently the most important Cuban nitrogenous fertilizer import is currently urea from Russia and ammonia, a fertilizer intermediate, imported from Trinidad and Tobago. Natural gas is the major feedstock source for these products. The United States is currently not economically competitive with these countries, other Latin American countries, and Middle Eastern producers. By-product ammonium sulfate resulting principally from caprolactam manufacture, however, may be competitive. Ammonium phosphates and triple superphosphate, high-analysis solid phosphate fertilizers produced in Florida, appear to have promising potential for export to Cuba. Ibid.

[11] Imported sulfur is currently believed to be consumed primarily in the nickel and other mining sectors as sulfuric acid. Canada and France are known to have shipped elemental sulfur to Cuba. Ibid.

[12] Canada and the Soviet Union countries, and to a lesser extent Germany, currently supply the Cuban potassium (potash) market.

shipments of fertilizers to the United States is unlikely given Cuba's lack of indigenous raw materials for fertilizer production.

During 1996-98, Cuba's global imports of finished fertilizers (nitrogen, phosphate, and potassium) averaged $75 million, according to Cuban data. The Commission estimates that the U.S. fertilizer industry might expect to supply between $8 million and $15 million in exports, or 10 to 15 percent of Cuba's total imports in the absence of sanctions. Industry sources expect the demand for U.S. fertilizers to be substantially higher than this level in the longer term.[13]

If in the absence of sanctions Cuban agricultural production increases, the demand for pesticide products, including imports from U.S. companies, is likely to increase. Based on a comparison with other Caribbean countries for 1997, Cuban pesticide use is estimated at about $5 per acre in the absence of sanctions;[14] and U.S. multinational companies could account for 30 to 40 percent of Cuba's imports.[15] In the absence of sanctions, U.S. exports of pesticide products would be small, at most $4 million in the short term, although it is difficult to determine the national origin of aggregate pesticide exports because of the number of recent spin-offs and mergers in the industry.[16] Given its limited foreign exchange, Cuba might continue to purchase pesticides from countries with which it can barter rather than from the United States. Cuba is also likely to import pesticide products from companies that already have their products registered; and it might require some time for U.S. companies to register their products.[17] It is unlikely that Cuba would develop a large pesticide products industry that would export to or invest in the United States in the absence of sanctions.

Historical and Current Impact of Sanctions on Cuba

The Cuban fertilizer industry was not significantly impacted by sanctions during 1960-1989 because the Soviet Union became Cuba's low-cost supplier. During that period, Cuban imports and consumption of fertilizer nutrients grew rapidly—by 1989 Cuban fertilizer consumption was five times the 1961 level. In 1989, Cuba imported fertilizers valued at $154 million, representing about 80 percent of total fertilizer nutrient consumption.[18] However, with the loss of Soviet economic assistance in the early 1990s, Cuban imports of finished fertilizer products had declined to $24 million

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[13] See note 8.

[14] Conversation with officials in Office of Pesticides Programs, U.S. Environmental Protection Agency.

[15] Ibid.

[16] For example, the U.S. company American Cyanamid sold its pesticide products division to another U.S. company, American Home Products (AHP), in the mid-1990s. AHP then sold the division to the German company BASF in 1999. In addition, many of the larger companies register and sell, under their own name, generic products manufactured in low-cost third countries.

[17] Phone conversations with various market research companies by Commission staff, Oct. 1-15, 2000.

[18] Food and Agricultural Organization statistics; excludes imports of ammonia and sulfur intermediates potentially used for fertilizer production, which could have amounted to another $15 million to $25 million.

in 1998.[19] Leading suppliers in 1998 were Russia, Canada, Tunisia, Bulgaria, and Germany.[20] In the absence of sanctions, Cuba probably would have imported some fertilizer from the United States at lower cost than other supplying countries.

Because there was no pesticide products industry in Cuba prior to the imposition of sanctions, there was no historical effect of sanctions on production, sales, costs, or employment to the industry. Cuba probably would have imported some pesticide products from U.S. suppliers in the absence of sanctions. In addition, Cuba has developed some agricultural biotechnology products that might have been more readily available from the United States had there been no sanctions.

The current impact on Cuba's fertilizer and pesticide industries is small but measurable. As a net importing country of both fertilizers and pesticides, access to the U.S. market in the absence of sanctions would provide some benefits, in particular the ability to import some products at lower cost than from other parts of the world.

Pharmaceutical Products

The United States is one of the world's largest producing and consuming countries of pharmaceutical products. In 1999, U.S. production reached $82 billion, up by more than a third from the $60 billion in 1995. U.S. exports of pharmaceutical products have also risen significantly during the past 5 years, increasing from $8 billion in 1995 to $14 billion in 1999, with major markets being Japan, Canada, and Europe. The United States has been steadily increasing the percent of its imports of pharmaceutical products, which reached 26 percent of domestic consumption in 1999 compared to 14 percent in 1995. The majority of imports are sourced from Europe. The U.S. pharmaceutical industry is composed of two sectors—the patented products sector (characterized by large research and development costs) and the generic products sector (characterized by intense price competition in local markets).

Cuba has established a biotechnology and pharmaceutical industry[21] using indigenous technology and through association with foreign companies,[22] which has developed a number of original vaccines and reportedly has products registered throughout the world.[23] Cuba also manufactures generic pharmaceutical products. In recent years, the industry has produced annually about $50 million worth of products,

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[19] Oficina Nacional de Estadistícas, *Anuario Estadístico de Cuba 1998*, Edición 1999, Havana, pp. 135-136. Product tonnage reflects the gross weight of the fertilizer as opposed to nutrient tonnage.

[20] International Fertilizer Industry Association (IFA) statistics, Paris, France.

[21] The pharmaceutical and biotechnology industries can be considered as two separate industries, with biotechnology being part of, among other industries, the pharmaceutical industry. Cuban trade data preclude separating pharmaceutical and biotechnology products. However, Cuban import data primarily cover basic pharmaceutical products, while exports are mostly biotechnology pharmaceutical products.

[22] Economic Commission for Latin America and the Caribbean (ECLAC), *La Economía Cubana: Reformas estructurales y desempeño en los novente*, (Mexico City: United Nations, 1997), p. 322.

[23] A promotional brochure from the Cuban Center for Genetic Engineering and Biotechnology reported that in 1996 the company had 128 registrations in 34 countries.

of which $35 million was exported, mainly to South American markets. In 1998, pharmaceutical and health services constituted the fifth largest export industry in the economy.[24] Imports have remained relatively stable at $30 million annually since 1995. The leading exporters of pharmaceutical products to Cuba in 1998 were China, Canada, Italy, Denmark,[25] and several Latin American countries. U.S. sanctions permit donations and certain authorized sales of medicines and medical equipment to Cuba; such donations totaled $25 million in 1999.[26]

Historical and Current Impact of Sanctions on the United States

The historical impact of U.S. sanctions on U.S. production, exports, and employment has been minimal. Cuba represented less than 1 percent of total U.S. exports, and worldwide growth in demand for pharmaceuticals far exceeded any lost U.S. export opportunities in Cuba resulting from sanctions. The United States did not import pharmaceutical products from Cuba prior to the imposition of sanctions, nor was it likely to have imported any products had sanctions not been imposed. The major pharmaceutical and biotechnology markets (including the United States) have significant requirements for entry, including costly registration procedures, strict production requirements, and large marketing requirements, which, for the most part, only large pharmaceutical producers have been able to surmount.

The Commission estimates that the current impact of U.S. sanctions with respect to Cuba on the U.S. pharmaceutical industry probably is very small, with estimated U.S. exports to Cuba of pharmaceutical products ranging from zero to $1 million annually in the absence of sanctions, based on average 1996-98 trade data. This estimate reflects the small size of the Cuban market and its low per capita income, extensive licensing restrictions, onerous health and safety regulations, the lack of patent protection, and Cuba's foreign exchange shortage.[27]

In the longer run, U.S. exports to Cuba, in the absence of sanctions will depend, in part, on future demand. A Cuban official recently noted that Cuba's imports of pharmaceutical products in the late 1980s would be a good indicator of potential

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[24] Central Intelligence Agency, *Cuba: Handbook of Trade Statistics, 1999*, at *http://www.odci.gov/cia/di/products/cuba_hbk99/index.html*, retrieved Feb. 18, 2000.

[25] Ibid.

[26] Further background on the U.S. and Cuban pharmaceutical products sectors can be found in Appendix G, tables G-28a through G-28d.

[27] Marketing pharmaceutical products requires a significant financial commitment, including training company representatives, educating the medical establishment about the products, writing instructions in the native language, and accommodating local health and registration regulations. A large company would probably begin to enter the Cuban market by making products available through a distributor, and then slowly expand its presence as the economy became more stable and safe. Industry representative, interview by Commission staff, Oct. 10, 2000. Also, Paula Stern, "The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba," The Stern Group, presented at the World Policy Institute Conference on The Domestic Economic Impact of U.S. Unilateral Food and Medical Sanctions: Case Study Cuba, June 15, 2000, p. 12.

imports in the absence of sanctions (imports were $100 million in 1989).[28] Another report estimates that the United States could export $600 million in pharmaceutical and medical products to Cuba (a 60 percent share of a $1 billion market), assuming market liberalization in Cuba and unrestricted trade.[29]

Some U.S. companies that already sell in Caribbean and Latin American countries report that they are likely to export to Cuba even though it would account for a negligible share of their total sales.[30] U.S. exports would also benefit from demand for U.S.-made pharmaceuticals by Cuban doctors and other health care professionals who have reported that they are familiar with U.S. pharmaceutical products obtained through donated U.S. sources.[31] However, an industry representative noted that at least three European multinational pharmaceutical companies currently have offices in Cuba, which gives them a competitive advantage. In the absence of sanctions, the patented products sector of the U.S. industry would be likely to export to Cuba; the generic sector, however, would experience more difficulty exporting its products because of competition from local producers and imports from other low-cost generic producers.[32]

The absence of sanctions might encourage U.S. investment in Cuba's pharmaceutical and biotechnology sectors. U.S. investors would benefit from Cuba's well-educated healthcare work force that receives with relatively low wages.[33] According to industry sources, the extent of U.S. investment in Cuba would depend on Cuba's regulatory environment. If U.S. investment occurred, U.S. trade, primarily intracompany trade, would increase as U.S. firms export intermediate and active pharmaceutical ingredients for manufacturing, formulating, and packaging.

Historical and Current Impact of Sanctions on Cuba

Sanctions initially harmed the Cuban industry's production, sales, costs, and employment because the United States was a significant supplier of pharmaceutical materials in the late 1950s.[34] For instance, in 1959, 40,000 medical products were reportedly registered in Cuba (such as medicines, reagents, instruments, and accessories), 80 percent of which was supplied from foreign firms, and most of these were U.S. based.[35] Prior to the sanctions, the Cuban pharmaceuticals sector did not export to, or invest in, the United States.

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[28] Jose Luis Rodriguez Garcia, Vice President of the Council of Ministers and Minister of Economy and Planning, "The Transformation of the Cuban Economy: An Economic Outlook," Mar. 4-6, 1998, p. 9.

[29] Paula Stern, see note 27, pp. 14-15.

[30] Industry representative, interview by Commission staff, July 30, 2000.

[31] Estimate is for future Cuban import demand for medical products including pharmaceutical products, based on annual Cuban medical expenditures of $100 per capita. The author notes that the United States has a 60 percent share of the Caribbean medical products market and, in time, U.S. producers could capture a similar share of these markets in Cuba. Paula Stern, see note 27, pp. 12-14.

[32] Industry representative, interview by Commission staff, July 30, 2000.

[33] *Impact of the U.S. Embargo on Health and Nutrition in Cuba* (Washington, DC: American Association of World Health: Washington, DC, 1997), pp. 45-73.

[34] The American Association for World Health, "The Impact of the U.S. Embargo on Health and Nutrition in Cuba," 1996, p. 45.

[35] See note 33, pp. 3-10.

The historical impact of the U.S. sanctions was to change the sources of Cuban pharmaceutical imports from the United States initially to primarily Soviet bloc countries, then to Europe and Asia, and, more recently, to South American countries. Also in response to sanctions, Cuba made a priority of developing a national health system and an internal infrastructure to deliver the health care services. Thus, according to some analysts, the long-term impact of the U.S. sanctions was to expedite Cuba's development of an advanced, national health care system offering extensive medical education, universal, free health services with hospitalization, and a domestic biotechnology and pharmaceutical industry.[36]

Beginning in the 1980s, Cuba started developing a biotechnology industry. According to government statistics, currently about 50 laboratories (including the Center for Biological Research and the Finlay Institute[37]) employ over 5,000 scientists.[38] These laboratories manufacture over 150 different medical, pharmaceutical, and biotechnology products,[39] including vaccines for Hepatitis B and meningitis. Medicuba oversees the export and import of Cuban medical products, and in 1991 the Government established Heber Biotech S.A. to handle international marketing of pharmaceutical and biotechnology products.[40]

The current impact of sanctions on the Cuban pharmaceutical industry is mixed. In general, Cuban demand for U.S. products would probably increase in the absence of sanctions. Many industry representatives estimate little impact on the Cuban pharmaceutical industry, because the industry does not make the same products made by the U.S. multinationals. In addition, Cuba might import certain U.S. pharmaceutical ingredients to make generic drugs. However, U.S. patented drugs would be forced to compete with Cuban generic drugs as well as products of European, South American, and Asian suppliers.

Cuba could benefit if U.S. and Cuban biotechnology companies develop joint ventures. This could eventually increase Cuban pharmaceutical and biotechnological exports to many third-party countries. Some U.S. pharmaceutical firms might establish low-cost manufacturing operations in Cuba, similar to operations established in other Caribbean and South American countries. If production operations were established, U.S.-Cuban trade in pharmaceuticals would increase, consisting largely of the intracompany shipments of intermediates and active ingredients. If manufacturing facilities for generic products were established, the products would probably be shipped to other countries in the Caribbean.

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[36] "One thing Cuba does right," *The Economist*, Sept. 7, 1996, p. 42.

[37] The Finlay Institute reportedly has 230 employees, 23,000 square meters of vaccine production capacity, and the ability to produce 100 million doses per year.

[38] Stanley Satz, "Biotechnology in Cuba: Government Promotes Joint Ventures and Collaborations," *Genetic Engineering News*, vol. 20, no. 12, June 15, 2000, p. 34.

[39] Concepcion Campa Heurgo, President and Director General, Finlay Institute, interview by Commission staff, Havana, July 16, 2000.

[40] See note 38, p. 35.

The United States is one of the largest, most-efficient textile producing countries in the world. In addition, its textile imports reached almost $14 billion in 1999, compared with $10 billion in 1995, with major supplying countries being Canada, China, and Mexico. The United States is also a major textile exporting country, with exports exceeding $10 billion annually during 1997-99. The majority of U.S. exports go to Mexico and Caribbean Basin countries for apparel assembly and return to the United States. The United States is the world's leading importer of apparel. U.S. imports of apparel rose from $40 billion to $57 billion during 1995-99 (with 1999 imports representing more than half of U.S. domestic consumption). A significant share of these imports came from Mexico and Caribbean Basin countries where U.S. apparel firms have established production-sharing arrangements to assemble garments with lower-cost labor.

In 1998, Cuban imports of textiles and apparel from all sources totaled $28 million and $27 million, respectively.[41] China supplied about a third of Cuba's apparel imports in 1998, with Mexico, Spain, and Italy other major supplying countries. Textile production declined by 84 percent between 1989 and 1994 as a result of the loss of Soviet economic assistance.[42] Cuba's lack of hard currency to finance imports contributes to fluctuations in production levels. The experience of some foreign suppliers is that Cuba's government controls and weak economy prevent it from currently being promising as either a buyer or seller of textiles and apparel.[43]

Historical and Current Impact of Sanctions on the United States

Historically, U.S. economic sanctions with respect to Cuba had little or no adverse effect on the U.S. textile and apparel industries, because prior to the imposition of sanctions, Cuba probably accounted for less than 1 percent of total U.S. imports and exports of textiles and apparel.[44] Although no trade data are available, a representative of the American Yarn Spinners Association stated that, before sanctions were imposed, Cuba had been a small market for U.S. exports of cotton yarn. The sanctions adversely affected the few U.S. producers exporting fibers, yarns, and fabrics to Cuba. A U.S. company producing fabrics reported that, as a result of the sanctions, it lost money from merchandise that was prepared against orders from Cuba that could not be shipped. This company stated that it took several years to fully

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[41] Based on U.N. trade statistics. U.N. trade data for 1999 are not yet complete.

[42] Economic Commission for Latin America and the Caribbean (ECLAC), *La Economía Cubana: Reformas estructurales y desempeño en los novente*, (Mexico City: United Nations, 1997), p. 322.

[43] Canadian company official, telephone interview with Commission staff, Aug. 7, 2000. Further background on the U.S. and Cuban textile and apparel sectors can be found in Appendix G, tables G-29 and G-30.

[44] Industry representatives interviewed by Commission staff reported that no data are available on U.S. textiles and apparel trade with Cuba before sanctions were imposed. They reported, however, that the total volume was minimal.

develop alternative export markets.[45] U.S. companies that had been exporting yarn to Cuba may have had some difficulty in finding alternative export markets because of the high tariff rates in the other potential markets, particularly in the Middle East and South Asia.[46]

The Commission estimates that U.S. exports of textiles to Cuba in the absence of sanctions would total $6 million to $9 million, representing less than 1 percent of total U.S. textile exports. However, one U.S. textile industry source estimated that with a more open Cuban economy and if Cuba were granted access to the U.S. market comparable to access granted to qualifying Caribbean Basin countries (so-called NAFTA parity),[47] U.S. exports of textiles to Cuba could eventually reach a minimum of $100 million per year and would enable U.S. textile producers to maintain existing employment levels.[48]

U.S. exports of apparel for consumption in Cuba would probably be small because of Cuba's limited purchasing power and small market. Although U.S. apparel brands convey quality and appeal to Cubans, reportedly few Cubans can afford U.S.-made apparel because of relatively low incomes.[49]

Potential U.S. exports to Cuba in the absence of sanctions include yarn and fabric because the Cuban textile industry lacks many of the raw and intermediate materials necessary for producing textiles and apparel. Some U.S. industry sources believe that in the absence of sanctions, U.S. yarns and fabrics would displace current suppliers because of lower transportation costs and faster delivery from the United States.[50] Although Cuba currently produces some yarn and fabric, most is imported from China, the EU,[51] and Canada.[52]

U.S. industry sources report that U.S. exports in the absence of sanctions may be hampered by several factors, including the inadequate infrastructure in Cuba, insufficient information technology (increasingly important for rapid communications throughout the supply chain), lack of information about the capacity, capability, and conditions of the Cuban textile and apparel industries, and the risks of having operations in Cuba.[53]

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[45] Industry representative, telephone interview with Commission staff, July 7, 2000.

[46] Ibid., Aug. 2, 2000.

[47] Under NAFTA-parity preferences, qualifying Caribbean Basin countries are given tariff treatment for apparel that is essentially equivalent to the trade preferences being granted to similar goods from Mexico under the NAFTA. U.S. imports of most apparel from qualifying Caribbean Basin countries were eligible to enter free of duty beginning on Oct. 1, 2000.

[48] Industry representative, telephone survey, Aug. 7, 2000.

[49] Industry representative, telephone interview with Commission staff, July 7, 2000; and Central Intelligence Agency, "Cuba," *The World Factbook 1999*, at *http://www.cia.gov/cia/publications/factbook/cu.html*, retrieved June 16, 2000.

[50] Industry representative, telephone interview with Commission staff, Aug. 2, 2000.

[51] For example, an Italian firm, Tricot Style SNC of Milan, Italy, recently announced plans to export fabric to Cuba for use in the production of women's apparel and to increase production levels to 5,000 units of women's apparel per day. See "Italy to Help with Apparel Production," Caribbean Update, Inc., Sept. 1, 2000.

[52] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 45; and Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 4-10.

[53] See note 50, Aug. 3, 2000.

While the absence of sanctions would provide U.S. textile and apparel exporters access to the Cuban market, it would also open the U.S. market to imports from Cuba.[54] U.S. textile producers have mixed views on the potential impact of imports of apparel from Cuba in the absence of sanctions. Some industry representatives report that Cuba is at a competitive disadvantage because imports of apparel from Cuba entering under column 1-general rates of duty (about 17 percent ad valorem) would make them relatively more expensive. The Commission estimates that the United States would be likely to import no more than $500,000 to $1 million annually, based on average 1996-98 trade data, representing a small fraction of total U.S. textile and apparel imports. If Cuban apparel were to enter at column 2 rates of duty, which are as high as 90 percent ad valorem on numerous products, industry sources report that such imports from Cuba would be negligible or nonexistent. Whichever duty rate is applied, industry sources note that it is unlikely that U.S. imports of apparel from Cuba would have any measurable effect on U.S. production because of the large volume of trade already coming from Mexico, the Caribbean, 7and Central America.[55] However, other industry sources stated that based on Cuba's low wages, subsidies on textile and apparel production, and U.S. trade with other Carribean countries, U.S. annual imports of Cuban apparel could eventually reach $250 million. The sources note that imports of this magnitude would have an adverse effect on the U.S. apparel industry.[56]

Historical and Current Impact of Sanctions on Cuba

The historical impact of U.S. sanctions on the Cuban textile and apparel industries has been significant. Prior to the imposition of sanctions, Cuba had developed strong textile and apparel industries, which received substantial support from the Cuban Government. According to a U.S. industry source, sanctions hampered the operations of the Cuban textile and apparel industries by eliminating a key source of raw and intermediate materials and machinery for production. In addition, many of the operators and owners of Cuban knitting firms reportedly moved to Miami soon after U.S. sanctions were imposed.[57] Consequently, Cuba's textile and apparel production reportedly declined sharply. However, within a few years after the sanctions were imposed, the Soviet Union and Eastern European countries began to ship yarns, fabrics, and machinery to Cuba.[58] During the 1980s, under barter arrangements, Soviet bloc countries supplied an estimated 80 percent of the yarns and fabrics used in the Cuban textile and apparel industry;[59] the Cuban textile and apparel industry thrived during this period.[60] According to one observer, the loss of Soviet economic

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[54] U.S. imports of textile and apparel from Cuba would be subject to quantitative restrictions under the Multifiber Agreement (MFA), and the expiration of the MFA in 2005 would probably result in increased competition between Cuba and Asian countries (in particular, China) in the U.S. market.

[55] See note 50, Aug. 3, 2000.

[56] Ibid., Aug. 7, 2000.

[57] Ibid., Aug. 3, 2000.

[58] Jaime Suchlicki, "Cuba Transition Project: Cuban Industry Review," U.S.-Cuba Business Council, 1998, p. 66.

[59] Jason L. Feer and Teo A. Babun, *CubaNews' Business Guide to Cuba*, (Washington, DC: CubaNews, 2000), p. 4-9.

[60] Industry representative, telephone interview with Commission staff, Nov. 7, 2000.

assistance after 1990 caused Cuban textile production to decline substantially,[61] and output has remained far below capacity.[62]

The current impact of U.S. sanctions on the Cuban textile and apparel industry is significant. As mentioned above, the Commission estimates that Cuban exports of textiles and apparel to the United States in the absence of sanctions could be $500,000 to $1 million annually, representing about 10 to 15 percent of Cuba's total exports to the world. Meanwhile, Cuba could import $6 million to $9 million of textile and apparel products from the United States annually, representing 10 to 15 percent of total Cuban textile and apparel imports based on average 1996-98 trade data.

Recent developments in the Cuban textile and apparel industries point to significant growth potential, which would only be further enhanced in the absence of sanctions, especially if U.S. apparel firms were to provide new investment, including the establishment of production-sharing operations similar to ones in the Caribbean Basin countries and in Mexico. For example, recent developments in Cuba's denim industry would be likely to attract the interest of U.S. apparel producers seeking to establish additional foreign assembly operations.[63] According to a U.S. trade consultant, the long-term trade potential with Cuba can be expected to reflect the speed and degree of political and economic reform in that country.[64] Without sufficient capital generated by economic expansion, some U.S. textile industry sources believe Cuba would not be able to afford to import U.S.-made textiles for domestic consumption.[65]

Steel

In 1999, U.S. steel consumption amounted to $71 billion, of which almost 18 percent (or $13 billion) was imported. The United States is the world's largest importer of steel, most of which is supplied by Canada, Japan, Mexico, and Europe. The United States is also the world's second largest steel producing country (behind China), although its importance in world markets has slowly declined over time owing to rapid expansion in other parts of the world. The United States exports substantial amounts of steel (mainly steel mill products and specialized steel products);[66] exports ranged between $4 and $5 billion annually during 1995-99, primarily to Canada and Mexico.

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[61] See note 58.

[62] For example, the Celia Sanchez Manduley factory in Santiago de Cuba was a large textile plant that opened in 1983 with a capacity to produce 80 million square meters of fabric annually and a workforce of 7,761 employees. In 1993, the factory output was only 3.2 million square meters and the workforce was only 5,964 employees. See note 59, p. 4-8.

[63] In June 2000, the state-operated Las Marinas Textile Factory in Santiago de Cuba announced plans to produce 1 million items of mainly denim clothing for sale in dollar retail stores (stores where all goods are marked up by the Cuban Government and must be paid for in dollars) and for export. "Sewing Machines from Mexico," Caribbean Update, June 2000, at *http://web4.infotrac.galegroup.-com/itw*, retrieved July 24, 2000; A Government manufacturer of denim pants, Empresa de Confecciones Fenex, has stated it was establishing three new factories this year, which would boost its production by 300 percent to 10,000 pairs of pants daily."Denim Production to Triple," Caribbean Update, Apr. 2000, at *http://web4.infotrac.galegroup.-com/itw*, retrieved July 24, 2000.

[64] Paula Stern, "The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba," The Stern Group, presented at the World Policy Institute Conference on The Domestic Economic Impact of U.S. Unilateral food and Medical Sanctions: Case Study Cuba, June 15, 2000, p. 3.

[65] Industry representative, telephone survey by Commission staff, Aug. 7, 2000.

[66] Steel mill products are produced by rolling in steel mills, and include semifinished products.

In contrast, Cuba is a minor participant in the world steel industry. Its steel production, valued at $77 million in 1999, represented only about 0.05 percent of world steel production. Cuba produces a narrow range of commodity-grade concrete reinforcing bar ("rebar") and other small bar products, and exports 60 to 80 percent of its production, mostly to the Caribbean and Latin America.[67] Because it produces a limited range of steel products, Cuba imports most of its steel requirements, primarily from Spain and Russia.[68]

Historical and Current Impact of Sanctions on the United States

Prior to the imposition of sanctions, Cuba was a significant purchaser of U.S. steel products. Exports to Cuba averaged about 100,000 short tons per year, accounting for about 2 to 3 percent of U.S. exports of steel products.[69] The loss of the Cuban market had little impact on the U.S. steel industry, however, because it represented only 0.1 percent of domestic production of steel, and the U.S. industry was able to find alternative markets.[70] The most significant steel product exported to Cuba was tinplate, used to produce containers for canning of fruits and vegetables. Prior to the imposition of sanctions, tinplate exports to Cuba averaged about 30,000 short tons per year, about 0.6 percent of U.S. production of that product.[71]

The immediate impact of the absence of sanctions on the U.S. steel industry is expected to be small with U.S. steel exports to Cuba estimated at less than $1 million annually (only a tiny fraction of total U.S. steel exports). Cuba is a small market likely to have limited potential for the U.S. steel industry. Cuban imports of steel products from all countries from 1994 through 1998 are reported to be about 100,000 short tons per year,[72] about the level of U.S. exports to Cuba during the late 1950s. Meanwhile, world competition in steel has become more intense, with world-class steel products available from many countries. The United States is a major importer of the same steel products that Cuba is importing, namely hot- and cold-rolled sheet, corrosion-resistant sheet, seamless and welded pipe, bar and structural products. Cuba's imports of tinplate are currently only about 5,000 tons per year, far less than before the sanctions

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[67] During 1999, imports of rebar from Cuba (as well as Turkey and Korea) were the subject of an antidumping investigation in Canada. The imports from Cuba were relatively small, only about 4,000 metric tons in 6 months, representing less than 4 percent of Canadian imports of rebar during the period of investigation. However, they represented an increase over earlier years. Injury to the Canadian rebar manufacturing industry was found, and antidumping duties were assessed, effective September 14, 1999, on imports of rebar from all three countries.

[68] Further background on the U.S. and Cuban steel sectors can be found in Appendix G, tables G-31a through G-31d.

[69] Official trade data of the United States, as summarized by American Iron and Steel Institute, *Annual Statistical Report*, 1956 through 1960.

[70] Ibid.

[71] Ibid.

[72] Instituto Latinoamericano del Fierro y el Acero, *Statistical Yearbook of Steelmaking and Iron Ore Mining in Latin America*, 1999 and 1998 editions.

were imposed. Cuba has ongoing trading relationships with other nations, primarily Spain and Russia, and it is unlikely that the United States would capture a significant share of the Cuban market in the absence of sanctions.

However, there could be market potential for exports of U.S. ferrous scrap[73] to Cuba in the absence of sanctions. The United States is the largest scrap-exporting nation in the world. Cuba is short of scrap and would need to import scrap in order to expand its production and exports of steel. However, the sale of scrap to Cuba is not likely to represent additional overall sales for the United States; Cuba will compete with other importing nations for its scrap needs, as it does now. Savings in transportation costs could give U.S. scrap shippers an advantage over other world sources. Exports of ferrous scrap to Cuba might total $10 million to $12 million annually.

Cuban steel products are likely to be imported by the United States in the absence of sanctions, but such imports are expected to have a minimal effect on the U.S. steel industry. Cuba would find the United States an attractive market, but its limited capacity and product range would restrict the amount of exports to the United States. The Commission estimates that U.S. imports of Cuban steel products would total about $11 million annually, representing less than one tenth of 1 percent of total U.S. steel imports.[74]

Historical and Current Impact of Sanctions on Cuba

U.S. sanctions had no historical effect on the Cuban steel industry. Cuba found new sources of steel relatively quickly, and in recent years Spain, Mexico, Russia, other Eastern European nations, and South American nations have supplied steel to Cuba. Steel is readily available in world trade, and the absence of the United States as a source of steel has not had a significant impact on Cuba's ability to satisfy its steel needs. Cuba was not an exporter of steel to the United States prior to the imposition of sanctions.

The current impact of lifting of the sanctions could have a significant effect on the Cuban steel industry. The Commission estimates that Cuban steel exports to the United States could reach $11 million annually in the absence of sanctions, based on average 1996-98 trade data, representing as much as 25 percent of total Cuban steel exports. Meanwhile, the absence of sanctions would have a negligible impact on Cuba as an importer of steel. Imports of steel from the United States are expected to be less than $1 million per year.

Acinox, with two steel-producing locations, is the sole producer of steel in Cuba. These two plants have been modernized over the past decade with European technology, but the mills have not reached their full potential owing to a variety of factors, including inadequate access to raw materials (primarily scrap), shortage of electric power, and

[73] Ferrous scrap would be melted down in Cuba to make finished steel products.
[74] This estimate was based on the current unused capacity in existing steel plants in Cuba.

lack of markets. On November 2, 2000, a German manufacturing company announced that it had been awarded a contract for delivery of a new hot-rolling mill at the Acinox plant near Havana.[75] This plant is expected to enable Acinox to expand the range and quality of its steel products, but will not increase the total amount of steel available. Lifting of the sanctions and granting of column 1-general duty treatment could allow this company to increase its production and sales from its existing facilities by perhaps 20 percent, increasing its exports by $25 million. However, expansion of the steel industry in Cuba is not considered likely because of the lack of raw materials and energy. The column 1-general rate of duty for steel products (rebar) is 2 percent ad valorem, effective Jan. 1, 2000; the duty rate is being reduced annually to zero by January 1, 2004. If Cuban steel were to enter the United States at the column 2 rate of duty, 20 percent ad valorem, Cuban steel exports would not be competitively priced in the U.S. market.[76]

Nickel and Cobalt

The United States produces virtually no primary nickel or cobalt products and relies entirely on imports for its consumption of both products.[77] The United States does not have facilities to process either nickel- or cobalt-containing raw material. The United States, which accounted for 14 percent of all nickel consumed[78] worldwide in 1999, imported about 40 percent of its primary unwrought nickel from Canada, 20 percent from Norway,[79] 13 percent from Australia, and 11 percent from Russia. The United States, which accounted for 19 percent of cobalt consumed worldwide in 1999, imported 22 percent of its cobalt imports from Norway; Finland[80] (16 percent), Zambia (13 percent), and Canada (11 percent) were other large suppliers to the United States. Most primary cobalt worldwide is consumed in superalloy applications and, increasingly, in the chemical industry (in catalysts, in rechargeable computer and mobile telephone batteries, and in pigments and paint driers).

Cuba is one of the major nickel and cobalt regions in the world (with 16 percent and 19 percent of world nickel and cobalt reserves, respectively). The nickel and cobalt sector has a crucial role in the Cuban economy in terms of its foreign exchange earnings; in 1997, sector exports reached $460 million, representing about one-fourth of Cuba's

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[75] "German company to supply new hot-rolling mill to Cuba," *American Metal Market*, Nov. 2, 2000, p. 3.

[76] Imports from Caribbean (other than Cuba), Central American, and Andean nations are duty-free under the Caribbean Basin Economic Recovery Act or the Andean Trade Preference Act. The column 2 duty is 20 percent ad valorem.

[77] The United States is a large producer of secondary (recycled) nickel.

[78] In 1999, stainless steel accounted for nearly 40 percent of primary nickel demand in the United States, followed by superalloys with 15 percent, electroplating with 13 percent, and nickel and nickel alloys with 12 percent.

[79] Norwegian exports to the United States are accounted for by Falconbridge Ltd. (Canada and Norway), which refines and exports primary nickel from its facility in Kristiansand, Norway.

[80] Imports from Finland are largely composed of imports of cobalt oxides and powders by OM Group, a U.S. chemicals producer, from captive production in Finland.

merchandise exports (second in importance behind sugar). Nickel is produced in Cuba by two entities at three production sites, one of which also produces cobalt. The Cuban Government produces nickel oxide and sinter[81] from two operations in the area of Punta and Nicaro in Holguin Province, nearly 80 percent is exported to Europe and Asia. Sherritt International Corporation (Canada), which has a 50-50 vertically-integrated joint venture agreement with the Cuban Government's General Nickel Company, operates mining and processing operations in Moa Bay,[82] where it produces a mixed nickel-cobalt sulfide.[83] Sherritt relies almost exclusively on its Cuban operations for its supplies of nickel and cobalt raw material, and in 1999 produced about 31,000 metric tons of nickel-cobalt concentrate in Cuba. The nickel-cobalt concentrate is shipped via Halifax, Nova Scotia, for refining at Fort Saskatchewan, Alberta. Virtually all of Sherritt's production of unwrought nickel and cobalt is exported to Asian markets, principally Japan, for stainless steel and nickel alloy production.[84]

Historical and Current Impact of Sanctions on the United States

Even in the absence of sanctions, the United States would not have purchased Cuban nickel- and cobalt-containing raw materials because the United States has no nickel or cobalt processing facilities. The main historical impact had been for U.S. consumers to pay a slightly higher price for nickel because sanctions prevent U.S. consumers from purchasing processed Canadian products containing Cuban-origin nickel. Instead, U.S. consumers must purchase nickel from nations such as Norway, Australia, and Russia, which are geographically remote and thus involve higher transportation costs. Because much of European production of nickel-containing products is destined for the U.S. market, these manufacturers have been reluctant to use nickel from Cuba in their manufacturing operations, particularly in products that have defense-related applications.

Similarly, the main historical impact of sanctions is for U.S. consumers to pay moderately higher prices for cobalt because Canadian primary cobalt contains Cuban-origin raw material. Instead, U.S. consumers must purchase cobalt from nations such as Norway, Finland, Zambia, and Congo, which are geographically more remote, and in the case of Zambia and Congo more politically unstable. In addition, since the cobalt manufactured from Cuban concentrate is of exceptionally high quality and a limited number of producers worldwide are qualified to produce such material, lack of U.S. access to Canadian-processed Cuban-origin material

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[81] Nickel oxide and sinter are considered intermediate forms that can be used directly in stainless steel production but must be further refined into a purer form to be used in nickel alloys and in superalloys.

[82] Both the Moa Bay and Nicaro mining properties were expropriated from U.S. owners in 1960. Sherritt was the first foreign company investing in Cuba to be penalized under the CLDSA. However, the CLDSA appears not to have affected Sherritt's ability to raise investment funds. The CLDSA is discussed in chapter 2.

[83] Mixed sulfides are a concentrated form of nickel and cobalt that cannot be used commercially until further refined.

[84] Further background on the U.S. and Cuban nickel and cobalt sectors can be found in Appendix G, tables G-32a through G-32e.

could contribute to higher prices for certain chemical and superalloy producers who require premium material.

In the absence of sanctions, there is likely to be a partial reorientation of global supply channels of nickel and a slight reduction in the price paid by U.S. consumers. The United States would have greater access to Canadian-processed nickel, specifically to Sherritt's processed nickel of Cuban-origin raw material. In the large U.S. market, Sherritt would have a competitive advantage over Norwegian, Russian, and Australian competitors in stainless steel and nickel alloy end uses because of its geographical proximity to the United States. As a result, Sherritt nickel would tend to supplement existing Canadian and other supply sources for U.S. nickel consumers in most end-use markets.[85] Presently, the total amount of refined nickel processed from Cuban raw material, under 29,000 metric tons, is too small (or less than 3 percent of total world production and 22 percent of all Canadian production) to displace Canadian firms as the primary suppliers of nickel to the United States. Because nickel-consuming countries typically prefer to diversify suppliers as a hedge against supply disruptions, the emergence of Sherritt as an additional supply source would be welcomed by U.S. buyers.[86]

In the case of cobalt, the consensus of industry opinion is that the availability of Sherritt in the U.S. market would provide U.S. consuming industries with another competitive supplier, leading to somewhat lower prices paid by U.S. consumers. Sourcing cobalt from Sherritt would likely occur at the expense of suppliers in Zambia, Congo, and Russia, particularly in light of the political instability and production/supply problems that currently plague cobalt production in those nations, the close proximity of Sherritt's refinery to the U.S. market, and the high quality of Sherritt cobalt.[87] The high quality of Sherritt cobalt powder and briquette (achieving purity levels above 99.8 percent cobalt) would also compete with the high-grade, premium-priced cobalt offered by INCO, Falconbridge, and WMC Ltd. (Australia) that are used in certain chemical and superalloy applications that require high-purity cobalt.[88]

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[85] For the aerospace superalloys market, currently only three suppliers–INCO (Canada), Falconbridge (Canada and Norway), and Eramet (France)–produce nickel of sufficient purity (99.8 percent nickel content) to qualify as suppliers. Sherritt nickel is not presently considered of sufficient purity to qualify for use in superalloys and would not be able to compete in this U.S. market. Dan Wolfe, Special Alloys, telephone interview by Commission staff, July 6, 2000.

[86] In the absence of sanctions U.S. nickel imports supplied by Sherritt's refinery in Canada would probably increase between 10,000 and 13, 000 metric tons annually, representing 35 to 45 percent of Sherritt's annual nickel production. Based on a price of $5,500 per metric ton, this would amount to $55 million to $72 million. This estimate is based on the present share of Canadian nickel production that is directed to the United States and on the competitive nature of Sherritt's product and its geographical advantage over Norwegian, Russian, and Australian nickel producers.

[87] In the absence of sanctions U.S. cobalt imports supplied by Sherritt's refinery in Canada probably would increase between 1,000 and 1,300 metric tons, representing 40 to 50 percent of Sherritt's annual cobalt production. This estimate is based on the present share of Canadian cobalt production that is directed to the United States and on the competitive nature of Sherritt's product and its geographical advantage over Russian and African cobalt producers.

[88] Cobalt from Russia and Africa is generally considered by industry sources as inferior to the product offered by INCO, Falconbridge, WMC, and Sherritt, because purity levels of material are often below 99.8 percent cobalt, requiring additional processing before it could be acceptable in higher-end applications. Michael Hawkins, President, The Cobalt Institute, telephone interview with Commission staff, June 28, 2000.

In the absence of sanctions, shifts in U.S. trade with Canada most likely would have minimal effects on the world prices of nickel and cobalt because Cuban-based production is already available in the world market. Further, Cuban supplies are probably too small to have a significant impact on prices.

Historical and Current Impact of Sanctions on Cuba

The historical impact of sanctions on current production, sales, and employment in Cuba has been limited. Prior to the imposition of sanctions, Cuba exported both nickel concentrate and nickel oxide to the United States.[89] Cuban exports of nickel oxide to the United States declined from about 18,000 metric tons of contained nickel in 1958 to nothing after 1960. However, after sanctions were imposed, Cuba quickly found alternative markets and sources of foreign investment in Soviet bloc countries. Until 1989, the Soviet bloc provided a guaranteed market and paid above-market prices for Cuban nickel. With the loss of Soviet economic assistance in the 1990s,[90] Cuban nickel exports were largely sent to Canada, Western Europe, and China.

The current impact of sanctions is to discourage foreign investment in Cuba by raising the cost of producing nickel and cobalt in Cuba. According to industry sources, U.S. sanctions hinder foreign investment in the Cuban nickel and cobalt industries in two ways. First, they prohibit sales to the United States, a large, geographically accessible market, forcing potential producers to transport products over longer distances to more remote markets. Second, sanctions contribute to raising the cost of nickel and cobalt industry development by forcing potential investors in Cuba to pay higher interest rates to encourage lenders to finance such projects. The cost of capital equipment and project financing in Cuba is said to be higher than it would be for comparable investments elsewhere.[91] Because mining projects compete on the basis of rate of return on capital investment, the higher costs for Cuban ventures effectively exclude potentially promising projects from consideration.[92]

According to industry sources, suppliers of Cuban-sourced nickel and cobalt would be able to sell their products in the large, stable U.S. market in the absence of sanctions, avoiding the need to absorb price discounts for their products in certain markets. Such a development would also encourage financing of mining projects in Cuba, thus

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[89] Nickel oxide was principally consumed directly by the stainless steel industry while the concentrate was refined in a facility in Port Nickel, LA, and the finished ingot product was used in stainless steel and defense-related applications.

[90] Economic Commission for Latin America and the Caribbean (ECLAC), *La Economía Cubana: Reformas estructurales y desempeño en los noventa*, (Mexico City: United Nations, 1997), p. 310.

[91] According to one estimate, operating and capital costs are some 20 to 30 percent higher for mining projects in Cuba than for comparable projects elsewhere. Industry representative, response to USITC survey, July 11, 2000.

[92] A number of global nickel and cobalt projects presently being evaluated by international mining companies and investors would compete with Cuban projects for investment dollars. For example, INCO, Eramet, and Falconbridge are involved in major development projects in New Caledonia that could add an additional 50,000 to 60,000 metric tons of nickel per year to world supplies. "Nickel in transition," *The Mining Journal*, Dec. 17, 1999, p. 475.

serving to eliminate the current cost premium associated with Cuban mining projects and potentially increase Cuba's production, sales, and employment in this sector. Future investment in Cuba is likely to be accelerated in the absence of sanctions because of the prospective lowering of operating and capital costs for Cuban mining projects that would result from access to the U.S. market.

At the same time, ending U.S. sanctions would be only one factor in encouraging foreign investment within the nickel and cobalt sectors in Cuba. Actions would also have to be taken to resolve the legal issues and ownership claims on former U.S. property in Cuba arising from the Helms-Burton Act.[93] Also, according to sources at QNI International,[94] while absence of sanctions would increase the economic viability of the San Felipe project that it is currently evaluating in Cuba,[95] the investment decision also depends on a number of other economic factors, such as the anticipated future demand, the price of nickel and cobalt, the comparative costs of developing competing reserves of these metals elsewhere.

Machinery[96] and Transportation Equipment

The large, diverse U.S. machinery sector is open to foreign competition and has few trade barriers. In 1999, U.S. machinery production reached $353 billion, with sector employment nearly 2 million workers. In the same year, U.S. machinery imports amounted to $88 billion (roughly one-quarter of domestic consumption), while exports were $71 billion (20 percent of domestic production). The U.S. transportation equipment industry is also large, with strengths in the production of motor vehicles, aircraft, railroad equipment production, and boats. U.S. production reached $490 billion in 1999, with imports of $167 billion and exports of $106 billion. Major U.S. trading partners in machinery and transportation equipment, with respect to both imports and exports, are Japan, Mexico, Canada, and the EU.

The Cuban machinery sector principally produces sugar cane harvesting machines and household appliances. Sugar cane harvesting machines are manufactured mostly for domestic consumption, although newer models are reportedly technologically comparable with those of other major producing countries, such as Australia and the United States. Cuba also produces specialized forklift vehicles for handling cut sugar cane. These vehicles also are mostly used in the domestic sugar industry, although

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[93] Industry representative, response to Commission survey, July 11, 2000. The Helms-Burton Act is discussed in chapter 2.

[94] QNI International (Australia) is involved in a joint venture agreement with Geominera S.A., the mining investment company of the Cuban Government, to explore and assess the San Felipe nickel site in Camaguey Province. QNI has a 75 percent share in the venture and is the project operator for exploration and feasibility work.

[95] See note 93.

[96] Machinery as defined here excludes power generation machinery and equipment, computers and office machines (covered in other sections of this chapter), and nonpowered hand tools and other tools.

some are exported, mainly to Guatemala, Jamaica, and Mexico. A small number of Cuban firms specialize in the production or assembly of household appliances through licensing or as joint venture agreements with foreign firms.[97]

Cuba imports nearly all of its transportation equipment, which amounted to $140 million in 1998, with road vehicles[98] accounting for $129 million of that total.[99] Within the category of road vehicles, passenger cars accounted for $22 million, trucks and buses accounted for $35 million, and removable parts for road vehicles and auto electrical equipment accounted for $62 million. Spain, Brazil, and Canada were the leading suppliers of these products. Cuba also purchased engines as input for the sugar cane harvesting machines it produces and for its bus assembly operations. The one indigenous motor vehicle manufacturer, Taino, reportedly manufactures buses in Guanajay, Cuba, and has an annual capacity of 1,000 vehicles.[100] Cuba also produces fiberglass fishing vessels.[101]

Historical and Current Impact of Sanctions on the United States

Machinery

The historical impact of the sanctions on the U.S. machinery sector has been minimal. Prior to the imposition of sanctions, Cuba was a small market for U.S. machinery products, and U.S. exports to Cuba were concentrated in certain industries.[102] Thus relatively few exporters were affected by the imposition of sanctions, and those exporters that did supply Cuba were easily able to find alternative markets for their

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[97] The largest Cuban household appliance manufacturer, Industria Nacional Productora de Utensilos Domesticos (INDUP), entered into a number of joint venture agreements with Asian companies such as Samsung, Sanyo, and Daewoo to introduce several lines of household products and to uprade its production lines. Jaime Suchlicki, Info-Cuba, Inc., U.S.-Cuba Business Council, *Cuba Transition Project: Cuban Industry Review*, 1998.

[98] As classified in SITC 78: which includes passenger cars, buses, and trucks, as well as golf carts, off-highway dump trucks, mobile cranes, mobile drilling derricks, mobile concrete mixers, fire fighting vehicles, motorcycles, bicycles, wheelchairs, trailers, containers, and parts of the aforementioned.

[99] Other types of transportation equipment imported by Cuba in negligible amounts include trains, non-war ships, aircraft and parts, and trailers and bicycles.

[100] *World Automotive Industry Trends 1999 Yearbook* (Elford, UK: World Automotive Industry Trends, 1999), p. 100.

[101] Further background on the U.S. and Cuban machinery and transportation equipment sectors can be found in Appendix G, tables G-33 and G-34.

[102] In 1958, U.S. exports of machinery to Cuba totaled $90 million (or 16 percent of total U.S. exports to that country), including construction and mining machinery ($9 million), agricultural and horticultural machinery ($8 million), household appliances ($7 million), valves and pumps ($6 million), air-conditioning and refrigeration machinery ($6 million), food processing machinery including mills ($4 million), pulp and paper machinery ($3 million), engines ($3 million), and other machinery ($41 million). Compiled by the Commission from official statistics of the U.S. Bureau of the Census, *United States Exports of Domestic and Foreign Merchandise*, Country of Destination by Subgroup, FT 420, 1958, and *United States Exports of Domestic and Foreign Merchandise*, Commodity by Country of Destination, Part II, 1958, FT 410.

products. Further, the U.S. machinery sector did not face any meaningful import competition from Cuba prior to the imposition of sanctions.[103]

Although demand for U.S. machinery in Cuba is likely to increase in the absence of sanctions, the Cuban market would remain small and therefore would have minimal effect on production and employment in the U.S. machinery sector. Also, U.S. machinery producers would be unlikely to invest in production in Cuba because current economic policies, the small size of the Cuban market, and a lack of local suppliers and skilled engineering labor would tend to make local production uneconomical.

The Commission estimates that U.S. exports of machinery to Cuba in the absence of sanctions would total $120 million to $154 million annually in the short term, based on average 1996-98 trade data, representing a small share of total U.S. machinery exports. Caterpillar, Inc. estimates that, in the absence of sanctions, there would be limited short term U.S. export opportunities, primarily for agricultural and mining machinery, as well as diesel engines and electric generator sets.[104]

In the longer term, more extensive foreign investment in Cuba is likely to enhance U.S. export potential, with resulting exports of construction, mining, and building materials machinery; agricultural and horticultural machinery; air-conditioning and refrigeration equipment; household appliances; pumps and valves; and oilfield and petroleum/chemical processing machinery.[105] Caterpillar estimates that Cuban demand for its products in the longer term would be greater than $150 million, and within a decade would exceed $500 million annually.[106]

Transportation Equipment

The historical impact of the sanctions on the U.S. transportation equipment sector has been minimal. Prior to the imposition of sanctions, Cuba was not a major market for U.S. transportation equipment[107] and alternative markets were readily available to U.S. exporters. The extent of U.S. and foreign investment in Cuba in transportation equipment production facilities prior to the imposition of sanctions is not known. However, it is unlikely that U.S. transportation equipment producers had production

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[103] In 1958, U.S. imports of machinery from Cuba totaled about $170,000. Compiled by the Commission from official statistics of the U.S. Bureau of the Census, *United States Imports of Merchandise for Consumption*, Country of Origin by Subgroup, FT 120, 1958.

[104] Joe Green, Director for Latin American Sales, Caterpillar, Inc., testimony before the USITC, Sept. 13, 2000, transcript, p. 370.

[105] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), pp. 39, 40, 65, 67, and 148-149.

[106] See note 104, pp. 371 and 436.

[107] In 1958, U.S. exports of transportation equipment to Cuba totaled $39 million, or 7 percent of total U.S. exports to that country, including motor vehicles and parts ($32 million), railroad equipment ($3 million), aircraft and parts ($1 million), and watercraft ($800,000). Compiled by the Commission from official statistics of the U.S. Bureau of the Census, see note *102.United States Exports of Domestic and Foreign Merchandise, Country of Destination by Subgroup*, FT 420, 1958, and *United States Exports of Domestic and Foreign Merchandise*, Commodity by Country of Destination, Part II, 1958, FT 410.

facilities (as opposed to repair facilities) in Cuba because it was a small market without adequate industrial infrastructure.[108] The U.S. transportation equipment sector did not face any measurable import competition from Cuba prior to the imposition of sanctions.[109]

New opportunities for U.S. exports of motor vehicles and parts to Cuba in the absence of sanctions are severely limited by the small size of the Cuban market and low per capita incomes. The Commission estimates that U.S. exports of transportation equipment to Cuba in the short term would total $43 million to $55 million, based on average 1996-98 trade data, representing less than one tenth of 1 percent of total U.S. exports of transportation equipment.

Currently automakers Fiat (Italy), Peugeot (France), Mitsubishi (Japan), Hyundai (Korea), and Daihatsu (Japan) sell passenger cars in the Cuban market through Cuban and foreign intermediary companies, and Volvo (Sweden)[110], Peugeot and Citroen (France), DaimlerChrysler (Germany), and Fiat (Italy) compete to place their engines in heavy transportation vehicles in Cuba and to sell buses, vans, and other vehicles to the Cuban tourism industry. The absence of sanctions would provide U.S. automakers with similar access to the Cuban market. Also possibilities may arise for U.S. automakers to enter into joint venture agreements with the Cuban Government similar to the one with DaimlerBenz.[111]

Historical and Current Impact of Sanctions on Cuba

Machinery

The historical impact of sanctions on the Cuban machinery sector has been significant, especially immediately following the imposition of sanctions, when the Cuban economy was denied spare and replacement parts for a wide range of machinery that was predominately of U.S. origin.[112] During the 1960s, Cuba replaced and added

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[108] U.S. motor vehicle producers have registered claims totaling at least $127 million for assets expropriated in Cuba. Reportedly, Ford Motor Co. has a claim for $33 million, General Motors for $5.9 million, and truck manufacturer Navistar for $88.3 million. U.S.-Cuba Trade and Economic Council, Inc., "Certified Claims," at *http://www.cubatrade.org.claims.htm*, retrieved July 14, 2000.

[109] U.S. imports of transportation equipment (vehicles and parts) totaled about $9,000 in 1958 Compiled by Commission staff from official statistics of the U.S. Bureau of the Census, *United States Imports of Merchandise for Consumption*, Country of Origin by Subgroup, FT 120, 1958.

[110] In November 1998, Volvo Penta (a division of Volvo) and the Cuban Government established the Unevol S.A. joint venture for the purpose of retrofitting and servicing heavy transportation equipment with used Volvo engines, as well as producing some engine parts in Cuba. The joint venture also provided servicing for Volvo buses and other vehicles. Cuba imports bus parts and bus motors from Volvo, DaimlerChrysler (Mercedes), and various Brazilian companies. Since 1995, the Cuban Government operates Rex, a business venture that rents Volvo vehicles. U.S.-Cuba Trade and Economic Council, "2000 Commercial Highlights," and "1999 Commercial Highlights," at *http://www.cubatrade.org*, retrieved Sept. 27, 2000.

[111] A 1996 contract between a Middle East-based subsidiary of DaimlerBenz and Cuban government-operated Unecamoto established MCV Commercial S.A. for the purpose of selling, distributing, and servicing Mercedes Benz engines and vehicles. Under the arrangement, the Government provided buildings, office space, warehouses, and personnel, while the foreign entity provided capital. Commission staff interview with a Mercedes Benz dealer, Havana, July 19, 2000.

[112] U.S. Department of Commerce, "United States Commercial Relations with Cuba: A Survey," Aug. 1975, in app. VI, U.S. House, Committee on International Relations, Subcommittees on International Trade and Commerce and International Relations, *U.S. Trade Embargo of Cuba*, hearings in May, June, and September 1975 (Washington, DC: GPO, 1976), p. 605.

new machinery from the Soviet Union and Eastern Europe, although much of it was technologically inferior to that from the United States.[113] By 1975, however, the adverse effects of the sanctions were lessened because Cuba purchased machinery from some Western European countries and Japan.[114] After 1991, with the reduction in Soviet economic assistance to Cuba, a shortage of replacement parts led to inoperable equipment and idled production capacity in many industries dependent upon machinery.[115] Further, without access to imports from the United States and lacking sufficient funds, Cuba was unable to purchase new machinery to replace antiquated machinery from the Soviet Union and Eastern Europe.[116] As a result, Cuba repaired and cannibalized parts for much of its machinery, and otherwise satisfied its machinery needs from non-U.S. sources.

Principal Cuban machinery industries producing sugar cane harvesters and household appliances could face import competition from the United States in the absence of U.S. sanctions. Currently, Cuba does not import sugar cane harvesters, but does import some household appliances from the EU.

Cuban producers are unlikely either to export to, or invest in, the United States because of their small size and lack of international competitiveness (for example, scale, capital, supplier networks, service support, and brand name recognition) relative to large, global U.S. and other foreign producers of sugar cane harvesters and household appliances.

Cuban industries that might potentially import machinery from the United States in the absence of U.S. sanctions include manufacturing and processing, agriculture, construction, and tourist industries.[117] The tourism sector requires construction machinery, air-conditioning machinery, and foodservice machinery. Public works, such as ports, roads, and water and sewage systems, require construction machinery, cranes, pumps and valves, and filters. These industries have been the focus of Cuban Government promotion policies and have received significant foreign investment that drives machinery imports. In the absence of sanctions, it is likely that any investment by U.S. firms would result in purchases of machinery from their U.S. machinery suppliers. U.S. exports of machinery to Cuba would be subject to tariffs ranging from 3 to 20 percent ad valorem. Many Cuban tariffs on machinery are in the range of 10 to 15 percent ad valorem. There are no known Cuban nontariff barriers to imports of U.S. machinery.[118] The Commission estimates that Cuban imports of machinery from the

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[113] Statement of Eric N. Baklanoff, University of Alabama, *U.S. Trade Embargo of Cuba* hearings, see note 112, p. 516.

[114] See note 112, pp. 605 and 639.

[115] Jaime Suchlicki, Info-Cuba, Inc., U.S.-Cuba Business Council, *Cuba Transition Project: Cuban Industry Review*, 1998.

[116] Commission staff interview with a manager of an agricultural cooperative, Havana, July 20, 2000.

[117] In 1998, Cuban imports of machinery amounted to almost $390 million, including motor vehicle engines ($91 million), electrical machinery ($46 million), heavy industrial machinery ($39 million), heating and cooling machinery ($38 million), pumps and centrifuges ($38 million), construction and mining machinery ($18 million), forklift trucks ($15 million), agricultural machinery ($12 million), and other machinery ($92 million).

[118] International Customs Tariffs Bureau, *The International Customs Journal, Cuba, Year 1997-1998*, no. 148, 9th ed.

United States in the absence of sanctions would total $120 million to $154 million annually, based on average 1996-98 trade data, representing 35 to 45 percent of total Cuban machinery imports.

Transportation Equipment

Prior to the imposition of sanctions, the United States was the predominant supplier of transportation equipment to Cuba. As with machinery, the effect of the sanctions was greatest during the 1960s, during which time the Cuban economy was denied spare and replacement parts for U.S.-origin transportation equipment.[119] Transportation equipment acquired from the Soviet Union and Eastern Europe was of poorer quality compared with products available from the United States,[120] although imports of transportation equipment from Japan and Europe by the mid 1970s, weakened the effect of U.S. sanctions.[121] Cuba also engaged in bus assembly operations.[122] After 1991, the reduction in assistance from the Soviet Union caused a shortage of replacement parts in Cuba that resulted in inoperable equipment and vehicle fleets plagued by inadequate maintenance.

In the absence of sanctions, the Cuban bus assembly and fiberglass fishing vessel producers are unlikely to either export to, or invest in, the United States because of their small size and lack of international competitiveness. However, the absence of sanctions probably would result in Cuban imports of transportation equipment from the United States. Cuban tariff rates on passenger cars, trucks, and buses range from 5 to 25 percent ad valorem, and tariffs on motor vehicle parts range from 5 to 10 percent ad valorem.[123] The Commission estimates that Cuban imports of transportation equipment from the United States would total $43 million and $55 million annually, based on average 1996-98 trade data, or 35 and 45 percent of total Cuban imports of these products.

Power Generation Machinery and Equipment[124]

The U.S. power generation machinery and equipment sector is concentrated in a small number of large companies that are highly competitive in international markets. U.S.

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[119] U.S. Department of Commerce, "United States Commercial Relations with Cuba: A Survey," Aug. 1975, in app. VI, U.S. House, Committee on International Relations, Subcommittees on International Trade and Commerce and International Relations, *U.S. Trade Embargo of Cuba* hearings in May, June, and September 1975 (Washington, DC: GPO, 1976), p. 605.

[120] Statement of Eric N. Baklanoff, University of Alabama, in *U.S. Trade Embargo of Cuba*, hearings, see note 119, p. 516.

[121] See note 119, pp. 605 and 639.

[122] Cuba has concentrated principally on bus and rail transport modes, while bicycle use has been promoted as an alternative means of transportation.

[123] See note 118.

[124] Power generation machinery and equipment as defined here includes nuclear reactors, steam and gas turbines, superheated boilers, hydraulic turbines, certain transformers, diesel and other generators, certain switchgear, and power distribution cables.

production increased steadily during the 1990s, reaching $9 billion in 1999. During 1995-99, U.S. exports amounted to about $4 billion annually, while imports increased from about $1 billion to $2.4 billion over the same period. Major U.S. trading partners, both with respect to exports and imports, are Canada, Japan, and the EU.

Virtually all equipment used in Cuba's power generation industry is imported. In 1998, Cuban imports of machinery and equipment reached $118 million, supplied mostly by Spain, the United Kingdom, and France. The Cuban Government has been actively seeking to modernize its electricity generation and distribution systems through joint venture agreements with foreign power companies. The Cuban power system is almost exclusively controlled by the state-run power company, Empresa Electrica Cubana.[125]

Historical and Current Impact of Sanctions on the United States

The historical impact of sanctions on the U.S. power generation machinery and equipment sector has been minimal. Prior to the imposition of sanctions, Cuba was not a significant export market for the United States because purchases of power generation and transmission equipment require significant capital outlays and the country had limited access to such capital.[126] Also, Cuba's production of fossil fuels needed to power such plants was not sufficiently developed to ensure adequate supplies. Consequently, Cuba was not heavily electrified outside of the major cities, notably Havana. Moreover, the loss of sales to Cuba by U.S. equipment suppliers, significant as they may have been over the course of the sanctions, has been largely made up by increased sales to emerging markets in Asia and Latin America. Thus, historically sanctions had little impact on production, prices, and employment in the U.S. power generation sector.[127]

Given the aging of existing power generation and transmission assets and the Government's desire to expand tourism and other domestic industries, Cuba represents the largest market for this equipment in the Caribbean and one of the largest potential markets in Latin America. However, U.S. industry sources indicated

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[125] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 136. Further background on the U.S. and Cuban power generation machinery and equipment sectors can be found in Appendix G, tables G-35a through G-35d.

[126] In 1958, U.S. exports of power generation machinery and equipment to Cuba totaled $8.5 million, or 1.6 percent of total U.S. exports to that country. Compiled by the Commission from official statistics of the U.S. Bureau of the Census, *United States Exports of Domestic and Foreign Merchandise*, Country of Destination by Subgroup, FT 420, 1958, and *United States Exports of Domestic and Foreign Merchandise*, Commodity by Country of Destination, Part II, 1958, FT 410.

[127] Total foreign investment (excluding the value of land) in Cuba's electricity, gas, and water industries amounted to $302 million in 1957. The U.S. portion of these investments was estimated to represent at least one-third of the total. Although the total value of U.S. electrical generating and transmission assets expropriated after the Castro government assumed power is unknown, at least one large certified claim has been filed by U.S. interests with the U.S. Foreign Claims Settlement Commission. Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), p. 28; "Certified Claims," U.S.-Cuba Trade and Economic Council, Inc., at *http://cubatrade.org/claims.htm*, retrieved July 14, 2000.

that, in the absence of sanctions, suppliers would still be faced with a number of impediments to establishing new generating and transmission facilities in Cuba. Thus, according to industry representatives, the current impact of sanctions on the U.S. power generation machinery and equipment sector is negligible.

Because an uninterrupted supply of fuel is critical to the financial viability of power generation projects, the lack of development in Cuba's oil and gas fields is a major concern among U.S. industry representatives. For this reason, the most recent addition of generating capacity in Cuba by a major Canadian investor hinged on the development of facilities to extract and process natural gas from a newly developed petroleum field in northern Cuba.[128] The Cuban Government's strict control over foreign investment, especially power generation projects, is also viewed by industry sources as a serious restriction.[129] Such control reportedly impedes the ability of foreign investors to establish a sound legal footing for potential generating projects to ensure that operating agreements with the Cuban state electrical utility will not be changed to their disadvantage. A number of foreign investors reportedly have experienced the propensity of Cuban governmental entities to change the understandings of a joint venture agreement just as a project is moving towards a critical stage of development.[130] This apparent lack of control over the development and operation of a generation project could be expected to affect the degree of participation by U.S. suppliers of equipment in the Cuban market.

U.S. industry sources also voiced concerns over Cuba's current lack of regulations controlling the generation and sale of electricity in the domestic market. This makes it difficult to ascertain whether new electricity-generating projects by U.S. firms would be profitable. The current condition of Cuba's electrical transmission and distribution network is also likely to impede the development of energy projects by U.S. firms, as 20 percent or more of all of the power transmitted on the Cuban electrical grid is lost as a result of inefficient and deficient equipment.[131] Significant improvements in the country's electrical grid may therefore be necessary to improve the delivery of power from the generator to the consumer. Finally, the Cuban Government heavily subsidizes domestic power users; only about one-quarter of customers have the ability to pay for their energy usage in hard currency.[132] Project operators historically have depended on these revenues to justify their financial commitments to these projects. Based upon various trade sources, it is unlikely that significant levels of U.S. involvement in Cuban projects would be forthcoming unless adequate assurances from the Cuban Government were made to provide for any revenue shortfalls.

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[128] Sherritt International Corporation, Annual Information Form, Mar. 15, 2000, pp. 13-16. Commission staff interview with Sherritt officials, Varadero, July 21, 2000.

[129] U.S.-Cuba Trade and Economic Council, *Economic Eye on Cuba*, May 22-28, 2000, pp. 4-6.

[130] "No cigar: For Jilted Engineers from Canada," *Wall Street Journal*, June 28, 1999, p. A1.

[131] Teo A. Babun, *A Business Guide to Cuba*, (Miami, FL: CubaNews. The Miami Herald Publishing Co., 2000), pp. 136-37. This compares with power losses (including stolen power) of approximately 5 percent in the United States. Edison Electric Institute, interview with Commission staff, Aug. 23, 2000.

[132] "Cuban electricity industry improves after decade of decay," *Latin American Power Watch*, Energy Argus, June 2000, p. 7.

Historical and Current Impact of Sanctions on Cuba

The historical impact of U.S. economic sanctions with respect to Cuba is difficult to ascertain, because since the early 1960s, the development and maintenance of electricity generating and transmission assets in Cuba has been heavily dependent upon equipment, expertise, and fuel at below market rates acquired from the Soviet Union and East European countries. Cuba's nearly complete dependence upon Soviet fossil fuels to power the predominately oil-fired generating facilities acquired from the Eastern bloc, the country's shortage of hard currency, the availability of Soviet technical and financial assistance, and the U.S. economic sanctions, made Cuba's ties with the Soviet Union the only viable option for electrifying the country. As a result, the vast majority (80 to 85 percent) of Cuba's installed generating capacity is comprised of Soviet, Czechoslovakian, Japanese, and French plants built since 1960.[133] This relationship accelerated the electrification of Cuba at a substantially faster pace than would have been expected had the country been dealing in an open market.

In response to the energy crisis of the mid 1990s and loss of Soviet economic assistance, Cuba enlisted the assistance of numerous foreign companies to develop the island's hydrocarbon resources.[134]

However, as discussed above, it is unlikely that U.S. firms would have participated in forming joint ventures in Cuba in the absence of sanctions because of constraints imposed by the Cuban Government.

The aging and inefficiency of a major portion of the power generation facilities in Cuba, as well as Cuba's desire to supply reliable and efficiently generated electrical energy to its mining, sugar, transportation, and tourism industries, indicate that significant demand currently exists for generating and transmission equipment. One estimate has placed the cost for these improvements at approximately $4 billion.[135] Although the absence of sanctions could provide an incentive for U.S. companies to explore business opportunities in the Cuban energy sector, other major obstacles to trade and investment remain. Among these obstacles are the Cuban Government's insistence on maintaining nearly total control over these projects, the need for further development of Cuba's hydrocarbon resources, and the need for establishing a regulatory framework more conducive to attracting electric power generators and suppliers to Cuba.

Electronics Goods[136]

The U.S. share of the world production of electronics goods is approximately 40 percent and is concentrated in high technology products such as computers,

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[133] See note 131, p. 134.

[134] See chapter 3 for discussion of Cuba's trade and foreign investment regime.

[135] See note 131, p. 138.

[136] Products covered in this sector include photographic film and paper; typewriters and word processing machines; calculating machines, accounting machines, postage-frankingmachines,

semiconductors, networking equipment, and fiber optics. U.S. production of electronics goods reached $508 billion in 1999, while imports (mainly from Japan, Mexico, and China) amounted to $221 billion, representing 38 percent of domestic consumption. Duties on U.S. imports of electronics goods are generally free, except for some consumer goods. Roughly 30 percent of U.S. electronics goods are exported, with Canada, Mexico, and Japan the major markets. Major domestic producers are multinational companies that often contract out labor-intensive or assembly operations with the result that many products have inputs from more than one country.

Cuban production of electronics goods amounted to $35 million in 1999. Thus the Cuban share of world electronics goods production is minimal and declining relative to other countries. Production facilities are antiquated and there is a lack of access to technology. Cuba's electronics goods imports reached $225 million in 1999, representing almost 90 percent of total domestic consumption. Major import supplying countries include Italy, Canada, and Spain.[137]

Historical and Current Impact of Sanctions on the United States

Sanctions had little effect on U.S. production, exports, or investment in the electronics goods sector because lost sales to Cuba were an insignificant share of sector output. Prior to the imposition of sanctions, U.S. companies producing office machines, consumer electronics, photographic equipment and supplies, and telecommunications equipment supplied the Cuban market through exports from their U.S. manufacturing facilities because the market was not large enough to warrant investment in production facilities.[138] Since no notable Cuban industry produced these electronics goods, U.S. imports from Cuba were negligible.

In the absence of sanctions U.S. exports to, and investment in, the Cuban electronics goods sector are expected to be minimal. Although Cuba's proximity, educated workforce, pent-up demand, and laws promoting investment would seem to make it an ideal destination for U.S. companies and goods, many factors counter these

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[136]—*Continued*
ticket-issuing machines, and cash registers; automatic data processing machines and units thereof; miscellaneous office machines; telecommunications apparatus; consumer audio and video apparatus; recorded and unrecorded media; radio-frequency transmission and reception apparatus; electric sound and visual signaling apparatus; electrical capacitors and resistors; electrical switch gear; electron tubes; semiconductor devices and electronic integrated circuits; miscellaneous electrical machines and apparatus; optical fibers and optical elements; lenses, prisms, and mirrors; spectacles and frames; binoculars and telescopes; photographic cameras and apparatus; photocopying apparatus; microscopes; electronic instruments; watches and clocks; and parts and accessories of the foregoing.

[137] Further background on the U.S. and Cuban electronics goods sectors can be found in Appendix G, tables G-36a through G-36d.

[138] In a few instances U.S. companies lost inventories or property through nationalization by the Cuban Government in the 1960s, but losses of significant productive capacity were not identified. A representative of the recording industry said that the Cuban Government had nationalized its recording studio and inventories. Industry representative, telephone interview by Commission staff, various dates, July 2000.

advantages. The small size of the market, the lack of access to financing and hard currency, and the presence of lower-cost competitors are major limiting factors. Other factors that would constrain U.S. exports and investment include relatively high labor costs, government participation in business operations, lack of infrastructure, and weak enforcement of intellectual property rights.

Trade and investment in consumer electronics goods would be essentially unaffected in the absence of sanctions. Given the state of the Cuban economy, U.S. producers have no plans to invest in production or assembly facilities in the foreseeable future.[139] U.S. exports of consumer electronics goods are generally higher-end goods and are not price competitive in low-income countries, such as Cuba.[140] Most Cuban consumer electronics goods (radios, televisions, calculators, and watches) are assembled in Cuba from parts imported from Asia, and other electronics goods, such as photocopiers, are imported, mainly from Asian producers. LG Electronics of Korea and Westlake Electronics Group of China have joint ventures in Cuba producing televisions for sale in U.S. dollar retail stores and to hotels and other tourist service businesses.[141] Production in these operations is principally smaller sets–20 inch screens or smaller–that are not manufactured in the United States. Japan's Casio supplies parts for electronics goods assembly in Cuba and Sharp and Canon products are sold through distributers.[142] Even if there were available disposable income in Cuba, the United States would see no increase in exports of VHS video tapes or recorders because Cuban Customs Resolution 3-2000 prohibits imports of prerecorded and blank VHS video tapes from the United States. In addition, Cuban citizens are not allowed to purchase VHS video tape player/recorders or satellite dishes that can receive U.S. television broadcasts.[143]

U.S. companies are among the largest producers of telecommunications networking equipment in the world, but in the absence of sanctions it is not likely that U.S. products would make up a significant portion of announced expenditures of Empresa de Telecomunicaciones de Cuba (ETECSA). There are many reasons for this. First, the

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[139] Industry representatives, responses to USITC survey, July-Aug. 2000.

[140] For example, U.S. exports of televisions are average-valued at more than $200 each, but U.S. imports of televisions from China average less than $90; U.S. exports of portable radios have an average value of $70 but U.S. imports, primarily from Asia average less than $20 each. Official statistics of the U.S. Department of Commerce.

[141] U.S.-Cuba Trade and Economic Council, Inc., "LG Electronics Sales Exceed US $11 Million During First Half of 1999," *Economic Eye on Cuba*, Aug. 9-15, 1999, at *http://www.cubatrade.org/eyeonz36.html*, retrieved Sept. 26, 2000; "Chinese-Cuban joint venture seeks to capture telecoms market," *Cuba News*, June 2000; "New Cuban TV Set Line to Begin Operating," *Cuban Economic News*, no. 2, Nov. 5, 1998, at *http://www.cubabiz.com*, retrieved Aug. 4, 2000; Cuban Government representatives, interview by Commission staff, New York, July 7, 2000.

[142] U.S.-Cuba Trade and Economic Council, Inc., "LG Electronics Sales Exceed US $11 Million During First Half of 1999," *Economic Eye on Cuba*, Aug. 9-15, 1999, at *http://www.cubatrade.org/eyeonz36.html*, retrieved Sept. 26, 2000, and "Realities of MarketCuba," at *http://www.cubatrade.org/market.html*, retrieved Oct. 5, 2000.

[143] U.S.-Cuba Trade and Economic Council, Inc., "VHS Video Tapes from the United States Prohibited," *2000 Commercial Highlights*, at *http://www.cubatrade.org/2000hlights.html*, retrieved Sept. 26, 2000; Larry Press, "The Internet in Cuba," ch. in MOSAIC Group, *The Global Diffusion of the Internet, Project I,* Mar. 1998, at *http://som.csudh.edu/fac/lpress*, retrieved Oct. 8, 2000.

actual investment in equipment may be less than announced because it may include supplier credits, donated equipment, investment contingent on future events, and existing assets rather than fresh investment.[144] Second, ETECSA and STET need to ensure the interoperability of their network and will likely make new equipment purchases from previous suppliers, such as the recent purchase of network equipment from ZyXel of Taiwan.[145] Equipment from Europe and Asia is creating an embedded base of non-U.S. telecommunications equipment in Cuba into which service providers are reluctant to introduce new suppliers.[146] Third, the growing relationship between China and Cuba is likely to benefit Chinese manufacturers of telecommunications equipment.[147]

In the much smaller cellular telecommunications sector, U.S. producers are unlikely to fare better than U.S. networking equipment producers because of the small market and because of the existence of Cubacel (a joint venture between ETECSA, Sherritt, and other foreign firms), which currently operates the cellular telephone system in Cuba.[148] Cellular services are limited mainly to government, tourism, and foreign customers and had only 5,000 subscribers in 1999.[149] A constraint on the size of the market is the Cuban Government preference for wireline telecommunications service over cellular.[150] In addition, Europeans suppliers fill the largest portion of the cellular market in Cuba, so the European standard, GSM, is expected to prevail over U.S. standards.[151] The choice of standard is likely to influence the choice of equipment providers.

Several factors limit the likelihood of U.S. electronics goods companies making significant investments in Cuba. The lack of an adequate telecommunications infrastructure and a reliable source of electricity makes production and delivery of

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[144] Larry Press, "Cuban Telecommunication Infrastructure and Investment,"*Cuba in Transition–Volume 6*, (Washington: Association for the Study of the Cuban Economy, 1996), p. 152.

[145] U.S.-Cuba Trade and Economic Council, Inc., "ZyXel of Taiwan Sells Telecommuni- cations Equipment to Cuba," *2000 Commercial Highlights*, at *http://www.cubatrade.org/ 2000hlights.html*, retrieved Sept. 26, 2000.

[146] Joe Green, Director for Latin American Sales, Caterpillar, Inc., testimony before the USITC, Sept. 13, 2000, transcript, p. 406.

[147] China has established a joint venture in Cuba to produce telephones and telecommunications equipment, provided $200 million in soft credits for the purchase of Chinese telecommunications equipment, contracted with ETECSA to supply $300 million in telecommunications equipment, and donated and installed a digital telecommunications system in Cuba. U.S.-Cuba Trade and Economic Council, Inc., "Finline Technologies of Canada Signs Agreement for Wireless Cable," *2000 Commercial Highlights*, at *http://www.cubatrade. org/2000hlights.html*, retrieved Sept. 26, 2000; John S. Kavulich, President, U.S.-Cuba Trade and Economic Council, Inc, testimony before the USITC, Sept. 19, 2000 pp. 155-6; Cuban Government representatives, interview by Commission staff, New York, July 7, 2000.

[148] The telecommunications services sector is discussed in chapter 4.

[149] U.S.-Cuba Trade and Economic Council, Inc., "Finline Technologies of Canada Signs Agreement for Wireless Cable," *2000 Commercial Highlights*, at *http://www.cubatrade. org/2000hlights.html*, retrieved Sept. 26, 2000; Philip Peters, "Going Places–Emerging Markets Roundup," *Wireless Week International*, June 22, 1998, at *http://www.wirelessweek. com/intl/emgiong.htm*, retrieved Oct. 5, 2000.

[150] Cuban Government representatives, interview by Commission staff, New York, July 7, 2000.

[151] Ibid.

products, especially software, unreliable.[152] Inadequate protection of intellectual property rights is a major obstacle to investment in Cuba. There have been reports of products being reverse engineered and copied by Cuban manufacturers.[153]

Historical and Current Impact of Sanctions on Cuba

Prior to the imposition of sanctions, the Cuban electronics goods sector was undeveloped and in the ensuing decades has lagged the development of the electronics goods sectors in other countries with comparable resources. The United States was the principal supplier of electronics goods to Cuba, and after the sanctions were imposed, Cuba was forced to find new sources, such as Soviet bloc and European countries, Asia, and Latin America. According to Cuban officials, sanctions have increased freight charges because imports must be transported over greater distances and because ships stopping in Cuba are prohibited from entering U.S. ports within 180 days. In addition, most of the equipment is bought indirectly in third-country markets and since suppliers know Cuba has limited sources, these suppliers can charge higher prices.[154] Sanctions have also influenced the quality of the electronics goods that enter Cuba. Because of sanctions, Cuba has been unable to purchase equipment compatible with U.S. equipment installed prior to the imposition of sanctions and has limited access to the latest technologies.[155]

It is not likely that the Cuban electronics goods sector would pose a threat to the U.S. electronics goods industry or to U.S. suppliers of imported goods in the absence of sanctions. Electronics goods exports from Cuba are minimal and are not technologically competitive with U.S.-manufactured equipment or with most U.S. imports. In addition, because of the high cost of labor in Cuba relative to the price of the goods manufactured, Cuban-produced electronics goods are not price competitive with U.S. imports from Asia, Mexico, and other Caribbean and Central American countries. For the reasons stated in the previous section, U.S. exports to Cuba are not expected to be substantial, especially in the near term. U.S. industry sources estimate that it would take U.S. companies 6 months to 2 years to evaluate the Cuban market, understand its regulations, and develop a marketing strategy for selling in Cuba.[156] As a result of these factors and those described in the previous sections, estimates of U.S. electronics goods import market share in Cuba are generally below 10 percent, or less than $20 million. The small size of the Cuban market was cited by several U.S.

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[152] Government of Canada, Department of Foreign Affairs and International Trade, *Cuba: A Guide for Canadian Businesses*, 2nd ed., June 1999, p. 27, at *http://www.dfait-maeci.gc.ca/geo/html_documents/cuba-e.htm*, retrieved Apr. 12, 2000; Nelson P. Valdes and Mario A. Rivera, "The Political Economy of the Internet in Cuba," *Cuba in Transition–Volume 9*, (Washington: Association for the Study of the Cuban Economy, 1999), p. 148.

[153] Government of Canada, see note 153.

[154] Cuban Government representatives, interview by Commission staff, New York, July 7, 2000.

[155] Ibid.

[156] Industry representatives, responses to USITC survey, Aug. 2000.

companies as insufficient to warrant investment in production capacity to serve the domestic market.[157]

Medical Goods

U.S. production of medical goods amounted to $31.5 billion in 1999, 40 percent of which was exported. The U.S. medical goods industry historically has traded primarily with Germany, Japan, and Canada. However, U.S. producers of commodity medical goods (such as transfusion devices, syringes, and needles) have been increasing assembly in Mexico, Dominican Republic, and Costa Rica in recent years to save on labor costs. This has led to increased U.S. trade with those countries in this sector.

Cuban production of medical goods was an estimated $3 million dollars in 1999. Imports of $20 million in that year, chiefly from Germany, Spain, and Japan, were responsible for much of the Cuban consumption of medical goods. Although the Cuban share of world production is significantly less than 1 percent, Cuba has relatively well-educated health care workers, and some officials believe that Cuba could serve as a site for low-cost assembly of commodity medical goods for U.S.-based firms in the future, similar to sites established recently by U.S. firms in other Caribbean nations.[158]

Historical and Current Impact of Sanctions on the United States

Major U.S. medical goods producers exported to Cuba prior to the imposition of sanctions,[159] would have continued to export to Cuba if the sanctions had not been imposed. Although such exports accounted for over 60 percent of Cuban consumption of medical goods prior to sanctions, they represented less than 1 percent of total U.S. exports. Further, at various times throughout the period of the U.S. sanctions, U.S. exports and donations of medical goods were allowed, although such exports were subject to strict licensing requirements, which reduced their flow.[160] Therefore, U.S. sanctions had little effect on overall U.S. medical goods exports, and demand growth for medical goods in Europe, Asia, and Latin America more than made up for the decline in U.S. exports to Cuba.[161] U.S. production and employment were also little affected by the imposition of sanctions.

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[157] Industry representatives, responses to USITC survey, June-July 2000.

[158] Further background on the U.S. and Cuban medical goods sectors can be found in Appendix G, tables G-37a through G-37d.

[159] Industry representatives, telephone interviews by Commission staff, June 15 and 28, 2000; and *Impact of the U.S. Embargo on Health and Nutrition in Cuba* (Washington, DC: American Association of World Health: Washington, DC, 1997), pp. 45-73.

[160] *Impact of the U.S. Embargo on Health and Nutrition in Cuba*, pp. 3-10, see note 160; and Paula Stern, The Stern Group, Inc., testimony before the USITC, Sept. 19, 2000, transcript, p. 264.

[161] Industry representatives, telephone interviews by Commission staff, June 15 and 28, 2000.

The U.S. medical goods industry did not face import competition from Cuba prior to the imposition of sanctions nor would it have encountered such competition if sanctions had not been imposed.[162] The U.S. medical goods industry has high regulatory, capital, and technology barriers to entry, which producers in all but the most advanced countries (such as the EU countries and Japan) have been unable to surmount. The only way Cuban exports might have increased would have been if U.S. manufacturers established low-wage assembly operations in Cuba, such as they have in Dominican Republic for certain commodity hospital supplies.[163]

The U.S. medical goods sector would be capable of exporting to Cuba in the absence of U.S. sanctions. Cuba's health care infrastructure generally is very antiquated and requires a broad range of medical goods, including advanced medical imaging and other electromedical equipment, medical instruments, and commodity hospital supplies, such as needles, syringes, and catheters.[164] In addition, several relatively advanced government-owned medical centers in Havana and other parts of Cuba that serve foreign patients (in what is known as "health tourism"),[165] would also be a source of demand for U.S.-made medical equipment. Whether U.S. producers would export to Cuba in the absence of sanctions would largely be determined by Cuba's ability to pay for such exports. Financing would be especially important for purchases of relatively expensive equipment, such as magnetic resonance and other high-technology imaging equipment.[166] The Commission estimates that U.S. exports of medical goods to Cuba in the absence of sanctions range would total $6 million to $8 million annually, based on average 1996-98 trade data, a very small share of total U.S. exports of medical goods.

Some U.S. companies that already export to Caribbean and Latin American countries report that they would probably export to Cuba, although that country would account for a negligible share of their total exports.[167] An official of a trade association representing smaller U.S. medical goods producers stated that even firms with little export experience find intriguing the possibility of expanded trade with Cuba.[168] One trade consultant indicated that U.S. medical product exports to Cuba eventually could capture a significant share of Cuba's import market.[169] She stated that there is

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[162] Ibid., June 15, 2000.

[163] Ibid., June 15 and 28, 2000.

[164] A study by the American Association for World Health indicated that medical services and supplies available in Cuba are very limited. *Impact of the U.S. Embargo on Health and Nutrition in Cuba* (Washington, DC: American Association of World Health: Washington, DC, 1997), pp. 45-73.

[165] Lazaro Alvarez, Committee Chairman, United Cuban Organization, testimony before Commission, Sept. 19, 2000; "One Thing Cuba Does Right," *Economist*, Sept. 7, 1996, p. 42; and "Cuba: Not Here," *Economist*, May 8, 1999, pp. 28-29.

[166] Industry representatives, telephone interviews by Commission staff, June 29 and July 11, 2000.

[167] Ibid., June 15, 2000.

[168] W. Bradford Gary, Member, Board of Directors, Medical Device Manufacturers Association, testimony before the Subcommittee on Trade, Committee on Ways and Means, hearing on *U.S. Economic and Trade Policy Toward Cuba*, May 7, 1998, 105th Cong., 2nd sess., 1998, serial 105-73 (Washington, DC: GPO, 1999), p. 118.

[169] Paula Stern, "The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba," The Stern Group, presented at the World Policy Institute Conference on the Domestic Economic Impact of U.S. Unilateral food and Medical Sanctions: Case Study Cuba, June 15, 2000, p. 12-14.

potential to increase medical sales to Cuba, considering that the Cuban import market has experienced steady growth since the devastating 1989-93 period.[170] Two U.S. companies indicated that, if Cuban Government health care expenditures increased and funding became available, it would take from 12 to 24 months before their firms could profit from exports to Cuba.[171] The general manager of MEDICUBA, the Cuban medical product import agency, estimated that Cuba's imports of U.S. medical goods could amount to $50 million to $60 million if sanctions were eliminated, and that amount could reach $150 million under conditions of relative economic recovery in Cuba, although those figures included pharmaceuticals as well as other medical goods.[172] The president of MEDICUBA stated at a January 2000 U.S. health care exhibition in Havana that the value of the Cuban market for exhibited U.S. products would be $25 million. Another expert stated that in the longer term, the United States could export more than $600 million in a fully unrestricted Cuban trade environment.[173] Other companies dispute those figures and indicate that because Cuba's potential market is so small and current expenditures on health care so low,[174] it would not be profitable for them to export to that country for at least a decade.[175]

Of the countries that currently export medical goods to Cuba, only Germany and Japan would be likely to provide significant competition to U.S. suppliers for most goods, including advanced medical imaging equipment, other electromedical goods, and commodity hospital supplies. U.S. exports would benefit from demand for U.S.-made medical goods by Cuban doctors and other health care professionals who have reported they like to work with U.S. medical products because they trust the credibility of the U.S. Food and Drug Administration (FDA) and the manufacturing standards of U.S. producers.[176] They have also become accustomed to U.S. medical equipment obtained through donated U.S. medical products[177] shipped to Cuba by the Cuban Medical Project, the Catholic Relief Fund, and other smaller charity projects.[178] Trade barriers that could impede U.S. exports to Cuba are onerous licensing restrictions and health and safety regulations of the Cuban health ministry, Ministerio de Salud Publica, and lack of funding for imported medical goods.

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[170] Paula Stern, The Stern Group, testimony before the USITC, Sept. 19, 2000, transcript, p. 138.

[171] U.S. company officials, telephone interviews by Commission staff, June 29 and July 11, 2000.

[172] *Impact of the U.S. Embargo on Health and Nutrition in Cuba* (Washington, DC: American Association of World Health: Washington, DC, 1997), pp. 46-47; and Paula Stern, "The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba," The Stern Group, presented at the World Policy Institute Conference on The Domestic Economic Impact of U.S. Unilateral food and Medical Sanctions: Case Study Cuba, June 15, 2000, p. 12-13.

[173] U.S.-Cuba Trade and Economic Council, Inc., "U.S. Healthcare Exhibition Declared Tremendous Success by MEDICUBA," *2000 Commercial Highlights*, Jan. 2000, at *http://www.cubatrade.org*, retrieved July 5, 2000, pp. 1-12; and Paula Stern, see note 171, p. 138.

[174] "Cuba: Not Here," *Economist*, May 8, 1999, pp. 28-29.

[175] Industry representatives, telephone interviews by Commission staff, June 15 and 20, 2000.

[176] *Impact of the U.S. Embargo on Health and Nutrition in Cuba* (Washington, DC: American Association of World Health: Washington, DC, 1997), pp. 45-73.

[177] Raymond C. Offenheiser, President, Oxfam America, testimony before USITC, Sept. 19, 2000, transcript, p. 340.

[178] Paula Stern, "The Impact on the U.S. Economy of Lifting the Food and Medical Embargo on Cuba," The Stern Group, presented at the World Policy Institute Conference on The Domestic Economic Impact of U.S. Unilateral food and Medical Sanctions: Case Study Cuba, June 15, 2000, p. 12-14.

Some U.S. manufacturers of commodity medical supplies indicate they might consider investing in low-wage assembly facilities in Cuba as they have in recent years in Mexico, Dominican Republic, and Costa Rica.[179] Cuba has well-educated health care workers[180] whose wages are relatively low compared with those of U.S. workers and who would be likely to be productive workers in such assembly operations. Whether U.S. companies would invest in assembly operations would depend on how rapidly Cuba's economic, transportation, and health care infrastructures develop and whether the Cuban Government encourages such investment.[181]

If such U.S. investment occurred, U.S. trade, primarily intracompany trade, with Cuba would rise as U.S. firms exported components and subassemblies of medical goods to that country for final assembly and processing.[182] However, the amount of value added by Cuban workers to U.S.-made medical goods components probably would account for a very small percentage of the total value of the finished products. Possibly foreign competitors such as the EU or Japan would invest in similar assembly operations in Cuba to export to the United States, although they have not done so to a large extent in Mexico, Dominican Republic, or Costa Rica. In any case, the U.S. industry would be highly unlikely to face import competition from Cuban medical goods producers.

Historical and Current Impact of Sanctions on Cuba

Because Cuba lacked a significant medical goods industry, there were no Cuban exports to, or investment in, the United States prior to the imposition of sanctions. It is unlikely that there would have been significant Cuban exports to the United States if the sanctions did not exist since it is unlikely that a significant medical goods industry would have emerged during the period in question. The only way Cuban exports might have increased is if U.S. medical goods firms had invested in low-cost assembly of commodity medical goods in Cuba similar to those in Dominican Republic and Costa Rica. Thus the sanctions had little impact on the Cuban industry's production, sales, costs, or employment. The primary impact of the U.S. sanctions was to divert the sources of medical goods imports, which account for over 90 percent of Cuban consumption of medical goods, from the United States to European, Asian, and Soviet bloc countries.

Prior to imposition of the sanctions, import competition from the United States and Europe and lack of technological capabilities in Cuba prevented the development of a significant Cuban industry. Some Cuban production of low-end commodity medical goods might have increased negligibly due to the withdrawal of U.S. competition, resulting in a small increase in Cuban sales and employment in the sector. For instance, one report indicates that a Cuban government-operated company assembled nuclear

[179] Industry representatives, telephone interviews by Commission staff, June 15 and 28, 2000.
[180] See note 178.
[181] Industry representatives, telephone interviews by Commission staff, June 15 and 28, 2000.
[182] Ibid., June 15, 2000.

x-ray and computer assisted tomography (CAT) scanners with the majority of the parts purchased from German companies.[183]

Many industry representatives believe the absence of sanctions will have little impact on the Cuban medical goods industry.[184] Any increase in imports from the United States would probably displace European and Asian suppliers rather than Cuban producers since foreign suppliers account for nearly 90 percent of Cuban consumption.

However, a few U.S. manufacturers of high-volume commodity medical products have indicated that they might consider establishing low-cost assembly operations in Cuba similar to those they have in other Caribbean countries.[185] If assembly operations are established, both Cuban imports from, and exports to, the United States would increase, consisting largely of the intracompany shipments of the U.S. firms investing in Cuba.[186]

Cement[187]

The United States is the world's second largest producer of cement (behind China), accounting for about 5 percent of global production in 1999, and is among the world's larger consuming countries. Cement production in the United States reached 82 million tons in 1999, while imports (accounting for almost 25 percent of consumption) amounted to 24 million tons. Canada, China, and Thailand were the principal U.S. sources of imported cement. Import transportation costs (excluding U.S. inland costs) averaged about one-quarter of the total product cost during 1995-99,[188] and inland transportation costs account for an estimated 10 to 20 percent of the delivery price.[189] As a result, cement is characterized as having regional markets, generally limited to a 200-mile radius of import terminals and domestic production facilities. The United States is not a major supplier of cement to other countries; and in recent years, U.S. exports have accounted for less than 1 percent of U.S. production. Cement is also characterized as a cyclical industry with demand driven by the level of construction activity within the regional markets. Cuba produced and imported cement during

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[183] U.S.-Cuba Trade and Economic Council, Inc., "CAT Scan Machine Assembled in Cuba Begins Operation," *Economic Eye on Cuba*, Feb. 23-Mar. 1, 1998, at *http://www.cubatrade.org*, retrieved July 12, 2000, p. 7.

[184] Industry representatives, telephone interviews by Commission staff, June 15 and 28, 2000.

[185] Ibid.

[186] Ibid.

[187] Cement is a fungible commodity, with domestically produced and imported products generally interchangeable. It is an industrial binding agent used predominantly in the production of concrete, which in turn is consumed almost wholly by the construction industry. Chief end users are highway construction and building construction using ready-mix concrete, concrete blocks, and precast concrete units.

[188] Import transportation estimates were derived from official import data for HTS 2523.10-2523.29 and represent the transportation and other charges on imports valued on a c.i.f. basis compared with customs value.

[189] USITC, *Gray Portland Cement and Cement Clinker from Japan, Mexico, and Venezuela*, investigations Nos. 303-TA-21 (Review) and 731-TA-451, 461, and 519 (Review), USITC forthcoming.

1950-59[190] when production peaked at almost 4 million metric tons per year.[191] Although today Cuba has a production capacity of about 5 million metric tons per year,[192] it produced only about 1.8 million metric tons in 1999 (accounting for less than 0.1 percent of global production and about 2 percent of U.S. production). Almost half of Cuban cement production was exported in 1999, with Dominican Republic, Haiti, and Brazil the major export markets. Cement in Cuba is produced at six government-owned plants fairly evenly distributed throughout the island with ready access to an abundant supply of input materials, energy sources, and transportation facilities.[193]

Historical and Current Impact of Sanctions on the United States

Overall, the historical impact of sanctions on the U.S. cement industry has been small. Sanctions denied U.S. cement importers access to Cuban supplies, resulting in purchases from more distant sources at somewhat higher prices because of greater transportation costs. U.S. regional markets most affected by sanctions have been the southern coastal region[194] and the region extending along the eastern coast.[195] These regions are mainly served by Greece, Korea, Thailand, Norway, Spain, Turkey, and Venezuela, which involve higher transportation costs than if cement were available from Cuba. Sanctions with respect to Cuba have not greatly affected U.S. export sales or U.S. production because the Cuban market for cement is small.[196]

In the absence of sanctions, the Cuban cement industry would have a competitive advantage over the more distant import sources owing to transportation cost savings, and could displace U.S. imports from Asia and Europe. Imports from Cuba might also displace some higher-cost domestic cement production within the regional markets, but would largely be anticipated to supplement U.S. cement production during periods of strong demand. The Commission estimates that U.S. cement imports from Cuba would total $19 million to $24 million annually in the absence of sanctions, based on average 1996-98 trade data, representing a fairly small share of total U.S. cement imports.

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[190] Export data are not available for this time frame.

[191] Teo A. Babun, "Cuba's Cement Industry," *Cuba in Transition–Volume 7*, (Washington: Association for the Study of the Cuban Economy, 1997), p. 381.

[192] "New investments may lead to increase in cement production," *CubaNews*, Jul. 2000.

[193] Further background on the U.S. and Cuban cement sectors can be found in Appendix G, tables G-38a through G-38d.

[194] Southern coastal region covers Florida, Alabama, Mississippi, Louisiana, and Texas.

[195] All Atlantic coast states except Florida, which is included in the Southern coastal region.

[196] There are no known occurrences of lost or expropriated U.S. cement investments in Cuba following the imposition of sanctions. However, prior to the imposition of sanctions, U.S.-based Lone Star Industries, Inc. lost a cement plant and a distribution facility at Mariel through expropriation. Lone Star's investments were expropriated without compensation in 1960. Lone Star Industries has a claim registered with the U.S. Foreign Claims Settlement Commission in the amount of $24.9 million for the Mariel property. See "Lone Star Industries Receives OFAC License to Visit Asset Claim in Cuba," *1999 Commercial Highlights*, U.S.-Cuba Trade and Economic Council, Inc., at *http://www.cubatrade.org/99hlights.html*, retrieved Oct. 11, 2000.

Historical and Current Impact of Sanctions on Cuba

At the time sanctions were imposed, Cuban cement exports to the United States were negligible; as the Cuban cement industry grew as a result of Soviet economic assistance, alternative markets were available to Cuban exporters (in particular, Latin America and Caribbean). Thus the historical impact of sanctions on the Cuban cement industry was small.

In an effort to moderate the impacts of losing Soviet economic assistance (which had provided highly subsidized energy supplies to the Cuban cement industry)[197] and U.S. economic sanctions, the Cuban Government in 1993 authorized Union de Empresas de Cemento (UEC), the government administrator of Cuba's cement plants, and CEMEX of Mexico to establish a new "mixed company" with both parties having equal shares. The agreement gave CEMEX exclusive right to export cement from all six plants in Cuba. However, following the imposition of the Helms-Burton Act in 1996,[198] the Mexicans withdrew from the agreement.

However, despite the loss of Mexican involvement, Cuba's cement industry has gradually increased production owing primarily to increased domestic natural gas (another energy source for cement production) and crude oil supplies,[199] heightened local construction activity,[200] and growing demand in neighboring export markets. During 1992-97, cement exports increased from about 165,000 metric tons ($7 million) to 922,000 metric tons ($32 million),[201] after which they dropped to an estimated 864,000 metric tons in 1999. During 1997-99, Cuba's principal cement export markets included Brazil, the Dominican Republic, Haiti, Honduras, Jamaica, Nicaragua, and other Caribbean islands, and Cuban officials have indicated that Cuba would begin exporting to the United States in the absence of sanctions.[202]

The Commission estimates that Cuban cement exports to the United States in the absence of sanctions would total $19 million and $24 million annually, based on average 1996-98 trade data, representing 75 to 95 percent of total Cuban cement exports, assuming column 1-general rates of duty. If column-2 rates apply, Cuba is still likely to export to the U.S. market, but at a slightly reduced levels.[203] It is anticipated

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[197] "New investments may lead to increase in cement production," *CubaNews*, Jul. 2000.

[198] Teo A. Babun, "Cuba's Cement Industry," *Cuba in Transition–Volume 7*, (Washington, DC: Association for the Study of the Cuban Economy, 1997), pp. 374-375.

[199] Because of its high sulfur content Cuba's domestic oil supply is suitable only to generate power and produce cement. The cement production equipment requires adjustments in order to burn the higher sulfur grade. See "BBC Monitoring International Reports," Sep. 29, 2000, at *http://www.dialogweb.com/cgi/dwclient?d...709,20-11869472,20-11866053,20-11857846*, retrieved Oct. 3, 2000.

[200] Although increasing, construction activity is constrained by the lack of building materials, high cost of imported materials, and theft of supplies, including cement. See "Restoration of Old Havana progresses but challenges remain," *CubaNews*, Dec. 1999.

[201] See note 199.

[202] Commission staff interview with Raùl de la Nuez, Minister of Foreign Trade, Havana, July 17, 2000.

[203] Under column 1-general rate of duty, imports enter duty free; under column 2, tariff rates range from $1.32 per ton, including weight of container, to $1.76 per ton for the more specialized white cement, with an estimated ad valorem value of 2 to 3 percent.

that opening the U.S. market to Cuban cement would also generate opportunities for U.S. investment in Cuba that would improve cement production efficiency.[204] For example, the Puerto Rican Cement Company operated a cement plant in Cuba during the 1950s and has reportedly stated that it intends to return to the Cuban market when permitted by the United States.[205]

Plastics

The United States is one the largest plastics producing and consuming countries in the world. In 1999, U.S. plastics production reached $83 billion, of which about 20 percent ($17 billion) exported, with major markets including Canada, Japan, and the EU. In contrast, the Cuban plastics industry does not compete in world markets and production amounted to only $4 million in 1999. Nearly all plastics production in Cuba is consumed internally. Industry growth in Cuba is limited by a severe shortage of chemical feedstocks required for plastics production.[206]

Historical and Current Impact of Sanctions on the United States

Because of the small size of the Cuban market coupled with the availability to U.S. plastics exporters of alternative markets, the historical impact of sanctions on the U.S. plastics sector has been minimal. According to industry sources, generally U.S. plastics manufacturers have little interest in trading with, or investing in, Cuba in the absence of U.S. sanctions.[207] However, the demand for plastics products could increase rapidly depending upon growth in other sectors, such as hotel construction and tourism. Cuba also uses plastic bags in its milk packaging and delivery program,[208] and there are severe shortages of some plastics articles, notably plastic cups.[209] Thus, the Commission estimates that U.S. exports of plastics to Cuba in the absence of sanctions would total about $4 million annually, based on average 1996-98 trade data, representing about 10 percent of Cuba's total imports of plastics, but less that 0.1 percent of total U.S. exports of plastics. Industry sources indicate that this share could rise to as much as 50 percent within 5 to 10 years.

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[204] See note 200, p. 380.

[205] "Puerto Rican Cement Company Looks to Return to Cuba," *1999 Commercial Highlights*, U.S.-Cuba Trade and Economic Council, Inc., at *http://www.cubatrade.org/ 99hlights.html*, retrieved Oct. 11, 2000.

[206] Further background on the U.S. and Cuban plastics sectors can be found in Appendix G, tables G-39a through G-39d.

[207] Society of the Plastics Industry, Washington, DC, telephone interview by Commission staff, Oct. 6, 2000.

[208] Tania Quintero, "Government says fresh milk better in plastic bags," Cuba Free Press, May 28, 1999, at *www.cubafreepress.org/art/cubap990528c.html*, Sept. 27, 2000.

[209] Hector Trujillo Pis, "Hepatitis Outbreak in Carribean, Cuba, linked to water," Cuba Free Press, December 23, 1998, at *www.cubafreepress.org/art/cubap981223f.html*, Sept. 27, 2000.

Industry sources also indicated that Cuba would export little to the United States in the absence of sanctions, because plastics production in Cuba is assumed to be dependent upon chemical feedstocks derived from petroleum imported through barter exchanges.[210] Because petroleum and fuel are considered critical to the operation of farm machinery and Cuba's agricultural development programs, most petroleum is refined for fuel and lubricating oil rather than chemical feedstocks.

Tires

In 1998, the value of U.S. tire production reached $14 billion, while consumption was higher, $15.5 billion, making the United States the largest tire producing and consuming country in the world. U.S. tire imports, reaching $4.4 billion in 1998, are mainly supplied by Canada and Japan, while exports in the same year amounted to $2.8 billion, with Canada and Mexico the major markets. The U.S. tire industry is dominated by highly competitive multinational firms such as Goodyear, Michelin, and Bridgestone/Firestone. Together, these companies reportedly command about 60 percent of the $60 billion to $70 billion global tire market.[211] In comparison, there is no significant domestic tire industry in Cuba, although there are reportedly some small Cuban tire plants are operating in the Havana vicinity.[212] Cuba is a net importer of tires, supplied mainly from China and countries of the former Soviet Union.[213]

Historical and Current Impact of Sanctions on the United States

Prior to the imposition of sanctions, the United States exported a small amount of tires to Cuba. For instance, U.S. tire exports to Cuba in 1959 amounted to about $2.7 million (about 5 percent of total U.S. tire exports), consisting of truck and bus tires valued ($1.3 million), passenger car tires ($0.6 million), farm tractor and farm implement tires ($0.4 million), and aircraft tires ($0.4 million).[214] However, with the loss of the Cuban market, U.S. tire manufactures were able to find alternative markets for their products, particularly in the fast-growing economies of Latin America and Asia. Thus the impact of sanctions on the U.S. domestic tire industry was small.

In the absence of sanctions, the U.S. tire sector could potentially resume exporting to Cuba truck and bus tires, passenger car tires, agricultural tractor and implement tires,

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[210] José Alonso and Ralph Galliaino, "Russian Oil-for-sugar barter deals 1989-99," *Cuba in Transition–Volume 9*, (Washington: Association for the Study of the Cuban Economy, 1999). p. 335-41.

[211] Telephone interviews by Commission staff with private U.S. industry sources and trade groups, October 2000.

[212] Bob Ulrich, Modern Tire Dealer, telephone interview by Commission staff, Oct. 13, 2000.

[213] Further background on the U.S. and Cuban tires sectors can be found in Appendix G, tables G-40a through G-40d.

[214] U.S. Dept. of Commerce, Bureau of the Census, *United States Exports of Domestic and Foreign Merchandise, Commodity by Country of Destination*, Report No. FT 410,, calendar year 1959, Part I, pp. 60-61.

and aircraft tires, as well as used and retreaded tires.[215] U.S. tire exports are highly competitive in world markets and would benefit from low transportation costs to Cuba, although they would face competition from countries currently trading with Cuba, including China, countries of the former Soviet Union, and Canada. These countries have existing trade pacts, traditional trade relationships, and aid packages which in the near term may adversely affect trade with the United States. The large-scale multinational structure of the U.S. tire industry makes it highly flexible and cost competitive in global markets. The Commission estimates that U.S. tire exports to Cuba in the absence of sanctions would total $21 million to $25 million annually, based on average 1996-98 trade data, representing about 1 percent of total U.S. tire exports. In the longer term in the absence of sanctions, industry sources report that U.S. companies might seek to enter into joint venture arrangements to establish Cuban tire plants.[216]

Historical and Current Impact of Sanctions on Cuba

Although the United States was the major supplier of Cuban tire imports prior to the imposition of sanctions, Cuba was able to find other suppliers. In 1995, Cuba imported $42 million of tires from China, countries of the former Soviet Union, Canada, and other countries. Over the long term, sanctions do not appear to have significantly affected the Cuban industry. Cuban tire imports declined markedly during 1995-98 following the withdrawal of Soviet economic assistance. However, Cuba currently is able to source tires from Canada, although, according to industry reports, at a higher cost than if imports could be made from the United States. During 1996-98, average Cuban tire imports amounted to about $33 million annually. In the absence of sanctions, the U.S. industry might expect to gain 65 to 75 percent of this total,[217] representing $21 million to $25 million.

Sporting Goods

The United States consumed almost $11 billion of sporting goods in 1999, making it the largest market in the world. Almost one-third of U.S. consumption is imported, with China, Taiwan, and Canada the major supplying countries. U.S. exports of sporting goods reached $1.6 billion in 1999, consisting mostly of high-end technology products for markets in Japan, Canada, and Europe.

The Cuban sporting goods industry employs 1,100 workers and had shipments valued at almost $6 million in 1999. Although shipments by Cuban producers of sporting

[215] Telephone interviews by Commission staff with private U.S. industry sources and trade groups, October 2000.
[216] Ibid.
[217] Commission staff telephone interviews with U.S. industry sources and trade groups, Oct. 2000.

goods are expected to double between 1998 and year-end 2000 (from $3.2 million to $6.5 million), industry officials expect growth in the market to stabilize in 2001.[218] Cuban-produced baseball and boxing equipment, manufactured under the Batos trademark, is reportedly exported to more than 20 countries throughout Latin American.[219] Revenues from these export sales amounted to only $45,000 in 1999, as Cuban sporting goods had difficulty competing in global markets with U.S. and European brands.[220]

Historical and Current Impact of Sanctions on the United States

Because most sporting goods were imported from the United States at the time sanctions were imposed, Cuba was forced to find alternative suppliers and to develop domestic production. In lieu of imports from the United States, the Cuban Government established a company to manufacture baseball bats and baseballs in 1965. Without access to imports from the United States, industry sources indicate that Cuba imports baseball equipment from Latin American and Asian countries (especially China).[221] Sanctions also denied U.S. producers access to the Cuban market for certain types of high-end sporting goods used mainly in the tourism sector. U.S. producers are highly competitive in such products, which are now imported from Europe, such as water skis from Italy and exercise equipment (including treadmills and stationary bicycles) from Spain.

Despite sanctions, industry sources note that at least one U.S. manufacturer has supplied high-end baseball equipment free of charge to Cuban teams participating in international competitions held outside of Cuba.[222] Other industry representatives note that some U.S.-brand sports equipment enters Cuba through third country sources.[223] Also, in 1998, the Bureau of Export Administration of the U.S. Department of Commerce issued a license permitting the export of $250,000 of "various baseballs, bats, gloves, bases, pitching machines, uniforms, and coaching equipment" to Cuba.[224]

In the absence of sanctions, industry representatives expect U.S. producers of certain sporting goods to experience an immediate boost in exports, albeit at a relatively small

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[218] "Sporting goods sector sees growth but little revenue from exports," *CubaNews,* Apr. 2000.

[219] Ibid.

[220] "Sporting goods sector sees growth but little revenue from exports," *CubaNews,* Apr. 2000; Further background on the U.S. and Cuban sporting goods sectors can be found in Appendix G, tables G-41a through G-41d.

[221] Industry representatives, telephone interview by Commission staff, Aug. 2000.

[222] Ibid.

[223] Ibid.

[224] U.S.-Cuba Trade and Economic Council, Inc., "1998 Commercial Highlights." This license was valid from Nov. 21, 1998 to Nov. 30, 2000 and follows conditions issued in conjunction with the U.S. Department of State's Support For The Cuban People Program.

level.[225] They further indicate that U.S. companies would be unlikely to establish production facilities in Cuba, and analysts do not see the United States as a significant market for Cuban exports of sporting goods in the absence of sanctions.

According to industry sources, the absence of sanctions would lead to U.S. exports of high-end premium quality sporting goods to top-level Cuban athletic teams. Sporting goods with the greatest potential for export to the Cuban market are aluminum baseball bats, baseballs, pitching machines, bases, and protective gear.[226] According to industry sources, in the absence of sanctions Cuban citizens would like to buy U.S. baseball equipment, but these sources doubt whether they have the ability to purchase such high quality items.[227]

In addition to baseball equipment, industry sources and foreign trade data indicate that there is a market in Cuba for high-end archery equipment, water skiing equipment, exercise equipment, and golf equipment, the demand for which is closely linked to the tourism sector.[228] Much of U.S. made high-end archery equipment is in demand for Cuban teams participating in international competition. Investments in golf courses associated with Cuba's tourism industry are likely to increase demand for golf equipment in Cuba, creating a potential opportunity for highly competitive U.S. producers of golf clubs and balls.

The Commission estimates that U.S. exports of sporting goods to Cuba in the absence of sanctions would total $1 million to $2 million annually, based on average 1996-98 trade data.[229] Imports from Cuba, however, would be negligible unless there were an infusion of foreign investment to manufacture goods not currently produced in Cuba.

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[225] Industry representatives, telephone interview by Commission staff, Aug. 2000.
[226] Ibid.
[227] Ibid.
[228] Charles Suddaby, "Cuba's Tourism Industry," *Cuba in Transition–Volume 7*, (Washington, DC: Association for the Study of the Cuban Economy, 1997), p. 123.
[229] This estimate is based on annual U.S. exports of sporting goods to Dominican Republic, adjusted for population and income differences between Dominican Republic and Cuba.

APPENDIX A
Request Letter

BILL ARCHER, TEXAS, CHAIRMAN
PHILIP M. CRANE, ILLINOIS
DAN THOMAS, CALIFORNIA
E. CLAY SHAW, JR., FLORIDA
NANCY L. JOHNSON, CONNECTICUT
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TD. Dx
cc: Dr
JG.

COMMITTEE ON WAYS AND MEANS

U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-6348

A.L. SINGLETON, CHIEF OF STAFF
JANICE MAYS, MINORITY CHIEF COUNSEL

March 15, 2000

The Honorable Lynn M. Bragg, Chairman
U.S. International Trade Commission
Washington, DC 20436

2115
Office of the
Secretary
U.S. International Trade Commission

00 MAR 16 PM 12:10

Dear Chairman Bragg:

The Committee on Ways and Means has jurisdiction with respect to U.S. sanctions policy against Cuba as it applies to imports. Within that jurisdiction, the Committee is requesting a report providing an overview and analysis of the economic impact of U.S. sanctions with respect to Cuba. The Committee requests this report under section 332(g) of the Tariff Act of 1930, 19 U.S.C. §1332 (g). The report should include, to the extent data are available:

- an overview of U.S. sanctions with respect to Cuba;
- a description of the Cuban economy, Cuban trade and investment policies, and trade and investment trends; and
- an analysis of the historical impact of U.S. sanctions on both the U.S. and Cuban economies, especially on affected sectors, and to the extent possible, on U.S. exports, imports, employment, consumers, and investment.

In addition, the study should provide an evaluation of the current impact on U.S.– Cuban bilateral trade, investment and employment, and consumers of the economic sanctions on trade and investment with Cuba, with particular attention to the effects on U.S. services, U.S. agriculture, and other sectors for which the impact is likely to be significant.

The Committee understands that the Commission's ability to conduct its analysis will necessarily depend on data availability. Bearing that constraint in mind, the Commission should employ, as appropriate, combination of quantitative and qualitative analyses. In conducting its analyses, the Commission might wish draw on the experience of other nations that are making the transition from less developed to developed status, or from non-market to market economies.

The Commission should provide its completed report to the Committee no later than 11 months following receipt of this letter.

Sincerely,

Bill Archer
Chairman

APPENDIX B
Federal Register Notice

Environmental Impact Statement and to comply with consultation requirements of the Grand Canyon Protection Act (Pub. L. 102–575) of 1992. The AMP provides an organization and process to ensure the use of scientific information in decision making concerning Glen Canyon Dam operations and protection of the affected resources consistent with the Grand Canyon Protection Act. The AMP has been organized and includes a federal advisory committee called the "Glen Canyon Dam Adaptive Management Work Group," a technical work group, a monitoring and research center, and independent review panels. The TWG is a subcommittee of the AMWG and provides technical advice and information for the AMWG to act upon.

DATES AND LOCATION: The Glen Canyon Adaptive Management Work Group will conduct public meetings as follows:

Phoenix, Arizona—July 6–7, 2000. The meeting will begin at 9:30 a.m. and conclude at 4:00 p.m. on the first day and begin at 8:00 a.m. and conclude at 12 noon on the second day. The meeting will be held at the Bureau of Indian Affairs—Phoenix Area Office, 2 Arizona Center, Conference Rooms A and B (12th Floor), 400 North 5th Street, Phoenix, Arizona.

Agenda: The purpose of the meeting will be to discuss the following: management objectives, basin hydrology, FY 2002 budget, development of the AMP Strategic Plan, and environmental compliance issues.

The Glen Canyon Technical Work Group will conduct public meetings as follows:

Phoenix, Arizona—May 10–11, 2000. The meeting will begin at 9:30 a.m. and conclude at 4:00 p.m. on the first day and begin at 8:00 a.m. and conclude at 12 noon on the second day. The meeting will be held at the Bureau of Indian Affairs—Phoenix Area Office, 2 Arizona Center, Conference Rooms A and B (12th Floor), 400 North 5th Street, Phoenix, Arizona.

Agenda: The purpose of the meeting will be to discuss the following: management objectives and information needs, basin hydrology and expected releases, FY 2002 budget, Terrestrial PEP and Cultural PEP reviews, and the AMWG agenda for the meeting on July 6–7, 2000.

Agenda items may be revised prior to any of the meetings. Final agendas will be posted 15 days in advance of each meeting and can be found at the following Internet site: *http://www.uc.usbr.gov/amp.* Time will be allowed on each agenda for any individual or organization wishing to make formal oral comments (limited to 10 minutes) at the meetings.

To allow full consideration of information by the TWG and AMWG members, written notice must be provided to Randall Peterson, Bureau of Reclamation, Upper Colorado Regional Office, 125 South State Street, Room 6107, Salt Lake City, Utah 84138–1102; telephone (801) 524–3758; faxogram (801) 524–3858; E-mail at: *rpeterson@uc.usbr.gov* at least FIVE (5) days prior to the meeting. Any written comments received will be provided to the TWG and AMWG members at the meetings.

Our practice is to make comments, including names and home addresses of respondents, available for public review. Individual respondents may request that we withhold their home address from public disclosure, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold a respondent's identity from public disclosure, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials or organizations or businesses, available for public disclosure in their entirety.

FOR FURTHER INFORMATION CONTACT: Randall Peterson, telephone (801) 524–3758; faxogram (801) 524–3858; E-mail at: *rpeterson@uc.usbr.gov.*

Dated: April 18, 2000.

Eluid Martinez,

Commissioner, Bureau of Reclamation.

[FR Doc. 00–10116 Filed 4–21–00; 8:45 am]

BILLING CODE 4310–94–P

INTERNATIONAL TRADE COMMISSION

[Investigation 332–413]

The Economic Impact of U.S. Sanctions With Respect to Cuba

AGENCY: United States International Trade Commission.

ACTION: Institution of investigation.

EFFECTIVE DATE: April 14, 2000.

SUMMARY: Following receipt of a request on March 15, 2000, from the Committee on Ways and Means of the U.S. House of Representatives, the Commission instituted investigation No. 332–413, The Economic Impact of U.S. Sanctions with Respect to Cuba, a report to the Congress and the President under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)).

FOR FURTHER INFORMATION CONTACT: Information may be obtained from Jame Stamps (202–205–3227), Office of Economics, or Mr. Jonathan Coleman (202–205–3465), Office of Industries, U.S. International Trade Commission, Washington, DC, 20436. For information on the legal aspects of this investigation contact William Gearhart of the Office o the General Counsel (202–205–3091). Hearing impaired individuals are advised that information on this matter can be obtained by contacting the TDD terminal on (202) 205–1810.

Background: The Committee on Ways and Means requested that the Commission's report include the following, to the extent data are available:

1. an overview of U.S. sanctions with respect to Cuba;

2. a description of the Cuban economy, Cuban trade and investment policies, and trade and investment trends; and

3. an analysis of the historical impact of U.S. sanctions on both the U.S. and Cuban economies, especially on affected sectors, and to the extent possible, on U.S. exports, imports, employment, consumers, and investment.

In addition, the Committee requested that the Commission provide an evaluation of the current impact on U.S.-Cuban bilateral trade, investment, employment, and consumers of the economic sanctions on trade and investment with Cuba, with particular attention to the effects on U.S. services, U.S. agriculture, and other sectors for which the impact is likely to be significant.

The Committee on Ways and Means further requested that the Commission's report employ, as appropriate, a combination of quantitative and qualitative analyses.

The Commission plans to submit its report, The Economic Impact of U.S. Sanctions with Respect to Cuba, by February 15, 2001.

Public Hearing: A public hearing in connection with the investigation will be held at the U.S. International Trade Commission Building, 500 E Street SW, Washington, DC, beginning at 9:30 a.m. on September 19, 2000. All persons shall have the right to appear, by counsel or in person, to present information and to be heard. Requests to appear at the public hearing should be filed with the Secretary, United States International Trade Commission, 500 E Street SW, Washington, DC 20436, no later than 5:15 p.m., August 29, 2000. Any prehearing briefs (original and 14

copies) should be filed not later than 5:15 p.m., September 12, 2000; the deadline for filing post-hearing briefs or statements is 5:15 p.m., September 28, 2000. In the event that, as of the close of business on August 29, 2000, no witnesses are scheduled to appear at the hearing, the hearing will be canceled. Any person interested in attending the hearing as an observer or non-participant may call the Secretary of the Commission (202–205–1806) after August 29, 2000, to determine whether the hearing will be held.

Written Submissions: In lieu of or in addition to participating in the hearing, interested parties are invited to submit written statements (original and 14 copies) concerning the matters to be addressed by the Commission in its report on this investigation. Commercial or financial information that a submitter 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 section 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 in the Office of the Secretary of the Commission for inspection by interested parties. To be assured of consideration by the Commission, written statements relating to the Commission's report should be submitted to the Commission at the earliest practical date and should be received no later than the close of business on October 4, 2000. All submissions should be addressed to the Secretary, United States International Trade Commission, 500 E Street SW, Washington, DC 20436. The Commission's rules do not authorize filing submissions with the Secretary by facsimile or electronic means.

Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (http://www.usitc.gov).

List of Subjects

Cuba, sanctions, exports, imports.

By order of the Commission.

Issued: April 14, 2000.

Donna R. Koehnke,

Secretary.

[FR Doc. 00–10072 Filed 4–21–00; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Inv. No. 337–TA–430]

Certain Integrated Repeaters and Products Containing Same; Notice of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Institution of investigation pursuant to 19 U.S.C. 1337.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on March 23, 2000, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, on behalf of Level One Communications, Inc., 9750 Goethe Rd., Sacramento, California 95827. A supplement to the complaint was filed on April 13, 2000. The complaint, as supplemented, alleges a violation of section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain integrated repeaters and products containing same by reason of infringement of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 of U.S. Letters Patent 5,742,603. The complaint further alleges that there exists an industry in the United States as required by subsection (a)(2) of section 337.

The complainant requests that the Commission institute an investigation and, after a hearing, issue a permanent exclusion order and a permanent cease and desist order.

ADDRESSES: The complaint and supplement, except for any confidential information contained therein, are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW., Room 112, Washington, DC 20436, telephone 202–205–2000. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may be obtained by accessing its internet server (http://www.usitc.gov).

FOR FURTHER INFORMATION CONTACT: Juan Cockburn, Esq., Office of Unfair Import Investigations, U.S. International Trade Commission, telephone 202–205–2572.

Authority: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, and in § 210.10 of the Commission's rules of practice and procedure, 19 CFR 210.1((1999).

Scope of Investigation

Having considered the complaint, th U.S. International Trade Commission, on April 17, 2000, ordered that—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, a amended, an investigation be institute to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States aft importation of certain integrated repeaters and products containing sam by reason of infringement of claims 1, 2 3, 4, 5, 6, 7, 8, 9, or 10 of U.S. Letters Patent 5,742,603, and whether there exists an industry in the United States as required by subsection (a)(2) of section 337.

(2) For the purpose of the investigation so instituted, the followin are hereby named as parties upon whic this notice of investigation shall be served:

(a) The complainant is —Level One Communications, Inc., 9750 Goethe Road, Sacramento, California 95827.

(b) The respondent is the following company alleged to be in violation of section 337, and is the party upon which the complaint is to be served: Altima Communications, Inc., 2055 Gateway Place, Suite 700, San Jose, California 95110.

(c) Juan Cockburn, Esq., Office of Unfair Import Investigations, U.S. International Trade Commission, 500 E Street, SW, Room 401–Q, Washington, DC 20436, who shall be the Commission investigative attorney, party to this investigation; and

(3) For the investigation so instituted, the Honorable Paul J. Luckern is designated as the presiding administrative law judge.

Responses to the complaint and the notice of investigation must be submitted by the named respondents in accordance with § 210.13 of the Commission's rules of practice and procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(d) and 210.13(a) of the Commission's rules, such responses wi be considered by the Commission if received not later than 20 days after the date of service by the Commission of th complaint and the notice of investigation. Extensions of time for submitting responses to the complaint will not be granted unless good cause therefor is shown.

APPENDIX C
List of Hearing Participants

List of Hearing Participants

The Honorable Max Baucus, U.S. Senator, State of Montana

The Honorable Charles B. Rangel, U.S. Congressman, 15th District, State of New York

The Honorable Ileana Ros-Lehtinen, U.S. Congresswoman, 18th District, State of Florida

The Honorable Lincoln Diaz-Balart, U.S. Congressman, 21st District, State of Florida

The Honorable Kenneth McClintock, Senator, Puerto Rico

Fernando Remirez de Estenoz, Principal Officer, Cuban Interests Section, Washington, DC and Deputy Minister of Foreign Affairs of the Republic of Cuba

William R. Hawkins, Visiting Fellow, U.S. Business and Industry Council

Wayne S. Smith, Senior Fellow, Center for International Policy

Frank J. Gaffney, President and CEO, The Center for Security Policy

Brian Latell, Professor, Georgetown University, School of Foreign Service

Richard Bell, President and CEO, USA Rice Federation

Paula Stern, President, The Stern Group, Inc.

Philip Peters, Vice President, Lexington Institute

John S. Kavulich, President, U.S.-Cuba Trade and Economic Council, Inc.

Thomas E. Cox, Director, U.S.-Cuba Business Council

Otto J. Reich, President, RMA International, Inc.

Kirk Reagan Menendez, General Counsel, Jorge Mas Canosa Freedom Foundation

Dennis K. Hayes, Executive Vice President, The Cuban American National Foundation

Lazaro Alvarez, Committee Chairman, United Cuban Organizations

Jaime Suchlicki, Director, Institute for Cuban and Cuban-American Studies, School of International Studies, University of Miami

Anthony F. Kirkpatrick, Assistant Professor, Department of Anesthesiology, University of South Florida

Tom Devine, Legal Director, Government Accountability Project, University of South Florida

Nelson Denlinger, Vice President, U.S. Wheat Associates, Wheat Export Trade Education Committee

Raymond C. Offenheiser, President, Oxfam America

Lissa Weinmann, Communications Director, Americans for Humanitarian Trade with Cuba

William M. Paparian, Law Office of William M. Paparian, former mayor of Pasadena, California

Kirby Jones, President, Alamar Associates

Joe Green, Director for Latin American Sales, Caterpillar, Inc.

Frank D. Kittredge, President, National Foreign Trade Council, and Vice Chairman, USA*Engage

Nicolás J. Gutiérrez, Secretary and General Counsel, National Association of Sugar Mill Owners of Cuba

Antonio Gayoso, Economic Advisor, Economic Advisory Services and Sugar Producers of Cuba, Inc.

Constantine C. Menges, Senior Fellow, Hudson Institute

Ignacio E. Sánchez, shareholder, Verner, Liipfert, Bernhard, McPherson and Hand, Chartered

William A. Messina, Executive Coordinator, International Agricultural Trade and Development Center, University of Florida

Matthew T. McGrath, Counsel, Barnes, Richardson & Colburn, on behalf of Florida Citrus Mutual

APPENDIX D
Summary of Hearing Testimony and Written Submissions

Summary of Hearing Testimony and Written Submissions

Transcript of Hearing Testimony

The following are transcripts of testimony provided during the Commission's public hearing for this investigation, held in Washington, DC on September 19-20, 2000. The *Federal Register* notice of that hearing is in Appendix B.

The Honorable Max Baucus, U.S. Senator, State of Montana

SENATOR BAUCUS: I welcome very much these hearings as you study the economic impact of the U.S. embargo on Cuba. I think it's very important. I am very pleased that the Commission is taking up this subject because it is relevant to our policies and our country.

Let me start with my conclusion. First, the embargo is a creature of the Cold War. The Cold War is over. We won. The embargo harms ordinary Cubans. The embargo harms American business, farmers and workers. The embargo harms America's interest in promoting a smooth transition toward democracy in a market economy in Cuba after Castro.

Mr. Chairman, in July, I led a Senate delegation to Havana. It was a brief trip, about 48 hours, but I had the opportunity to meet with a wide range of people and assess the situation firsthand. I met with Fidel Castro in a marathon 10-hour session. I might say it started at four in the afternoon, ended up at about two in the morning.

I spent three hours with a group of heroic dissidents who spent years in prison, yet have chosen to remain in Cuba and continue their dissent. I met with a number of foreign ambassadors, several cabinet ministers and the head of the largest independent NGO in Cuba.

I left Cuba more convinced than ever that it is time to end our fossilized Cuban policy. That is why I have introduced legislation to end the embargo and begin the process of normalization of our relations with Cuba. My bills are identical to those of Congressman Charles Rangel, who you will also hear from this morning.

Later today the Senate will pass legislation to grant China permanent normal trade relation status. I have been working hard towards this goal for 10 years. I am gratified that this is part of our China policy, and will now become an historical footnote.

We should act in the same responsible way with our Cuban policy. Let me elaborate. The trade embargo of Cuba is a unilateral sanctions policy. No other country supports it, not even our closes allies. I have long opposed all unilateral economic sanctions unless our national security is at stake.

Forty years ago Cuba threatened our national security. Those days are over. The Soviet nuclear missiles are gone. Cuban military and guerilla forces are no longer present in Central America, South America or Africa. The Department of Defense has concluded that Cuba represents no security threat to the United States, none.

Unilateral sanctions don't work. They don't change the behavior of the targeted country. When we stop our farmers and our businesses from exporting, they are the ones who are hurt, and our Japanese, European, and Canadian competitors happily rush in to fill the gap. Unilateral sanctions cripple our foreign policy. They are an ineffective tool.

The irony, the tragedy is that the U.S. embargo actually helps Castro. His economy is in shambles. The peoples' rights are repressed. These are the direct results of Castro's utterly misguided economic, political and social policies. Yet Fidel Castro is able to use the embargo as the scapegoat for Cuba's misery. It sounds absurd, but Castro actually blames the U.S. embargo for his failed economic policies. Without the embargo, he would have no one to blame but himself.

We should lift the embargo. We should do it without preconditions, and without demanding an quid pro quo from Cuba. We should engage them economically, but we should also do so without illusions.

Once we lift the embargo, Cuba will not become a major purchaser of our farm goods or manufactured products overnight, and it certainly won't become a democracy. We need to be realistic. With Cuba's failed economy and low income, ending the embargo won't lead to a huge surge of American products into Cuba. But there will be things to sell: food, medicine, some manufacturers, telecommunication services.

Today, Cuba imports come primarily from Europe, from Asia. With the embargo lifted, U.S. products will replace some of those sales. U.S. exporters will have the advantage of lower transportation costs and easier logistics. It will be a start.

In addition, ending the embargo will increase the exposure of the American people to the United States. It will result in more travel by tourists, business people, students, artists, scholars. It will bring us into closer contact with those who will be a part of the leadership in post-Castro Cuba. It will spur more investment in Cuba's tourist infrastructure, help it, even if only a little, the development of the private sector.

Let me comment about the effect of the embargo on the people. Cubans are suffering, no doubt about it. I was struck by the degree of poverty and repression in Cuba. We have the opportunity to help ameliorate some of this suffering and to do so right now. We could immediately remove our restrictive policy on remittances. Money would flow from Americans directly into the hands of Cuban citizens who need dollars to survive.

It can immediately remove our restricted policy on travel. Cuban Americans could visit their relatives without constraints. They could see aging parents and grandparents. It could restore the right of Americans to travel anywhere.

It could immediately allow for full and unfettered direct communications with Cuba, including permission to American companies to build telecommunications infrastructure both within the island and between Cuba and the United States.

The world has changed since the United States initiated this embargo 40 years ago. In those days, Castro was a clear danger. Today is not a present danger. Our policy has to change.

But I am not suggesting that we embrace Fidel Castro, far from it, but we cannot wait until he is completely gone from the scene before we start to develop normal relations with leaders and people in Cuba. If we wait, the transition will be much harder on the Cuban people. Events in Cuba could easily escalate out of control and become a real danger then to the United States.

The great irony is that a majority of members of Congress support at least initial steps to end the embargo. The support liberalizing the sale of food and medicine and loosen travel restrictions on American citizens.

Last year legislation to end unilateral sanctions on food and medicine exports passed the Senate by a vote of 70 to 28. It passed, large margin. Similar votes in the House and the Senate this year were overwhelming. Yet a very small group in the leadership in both houses is preventing the will of the vast majority of Congress to change the basis of our economic relationship with Cuba. What a travesty in democracy.

Let me conclude with a few example of absurdities that flow from our policy of trying to isolate Cuba. The National Black Caucus held its annual meeting in Washington last week. They invited Ricardo Alarcon, the president of the Cuban National Assembly to visit Washington to meet with the caucus. I met with Alarcon in Havana and planned to follow up during his visit to Washington. He was also going to speak about U.S.-Cuban relations at several think tanks a round town.

Incredibly he was denied permission by our government to travel from New York to Washington. The last I looked we were a country that encouraged open dialogue and discussion. South Korean President Kim Dae Jung meetings North Korean leader Kim Jong Il, and we support that. Yet we prohibit a Cuban leader from visiting Washington to meet with members of Congress, scholars and those interested in public policy.

What national interest was served by preventing Alarcon from meeting with me and my fellow members of Congress? That is an absurd example, number one.

Number two, TV Martí is television station owned and operated by the U.S. Government. The creation of TV Martí and its sister station Radio Martí was a good idea conceptually. The U.S. Government would beam into Cuba uncensored news about the world, uncensored news about what was really going on inside the country. The Cuban people deprived of their freedoms would have a source of objective news.

Since 1989, the federal government has spent $130 million on TV Martí. The plan is to spend $9.5 million next year. There is one problem. No one in Cuba watches TV Martí. According to research commissioned by the Broadcasting Board of Governors, the agency that runs TV Martí, nine out of 10 Cubans don't even know it exists.

Of the 1,000 adults asked whether they had watched TV Martí in the past week, not a single one responded yes, not a single one out of that 1,000. Out of that 1,000, one had watched TV Martí in the last year.

Now, there is a good explanation for this, why no one watches.

First, TV Martí broadcasts only from 3:30 in the morning until eight a.m., 3:30 in the morning until eight a.m. Most Cubans obviously are asleep during the programming.

Second, there is nothing to see. The Cuban government has effectively jammed TV Martí since its inception. We spent tens of millions of dollars a year on broadcast that nobody watches. Yet we seem unable to knock this expenditure out of the appropriations bill.

I hope to see the day when American policy toward Cuba is no longer controlled by a small chordally of leaders in the Congress along with a few private groups, and instead our policy will serve the national interest.

I hope these hearings will bring rationality into our policy-making process. Thank you very much.[1]

The Honorable Charles B. Rangel, U.S. Congressman, 15th District, State of New York

CONGRESSMAN RANGEL: Thank you, Mr. Chairman, and it's an honor to be here to testify in front of your Commission. I can't begin to thank you for accepting the request of the Ways and Means Committee.

I want to say that I have not discussed in any way the Senator's trip to Cuba and I am just so pleased that we agree on the issues as it relates to improving our relationship with Cuba, and we will be working closely together as he soon will be the senior Democrat and/or chairman of the Senate Finance Committee, and I find myself in the same political posture as it relates to the Ways and Means Committee.

In any event, we will be working close together and I am honored to be sharing this witness table with two distinguished members of the Congress from Florida, Congresswoman Ros-Lehtinen as well as Congressman Diaz-Balart, and recognizing the amount of emotion and certainly ethic pride that brings them to this table in search for democracy in their beloved Cuba.

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[1] Senator Max Baucus (D-Montana), testimony before the Commission, Sept. 19, 2000, (Washington, DC: Heritage Reporting Corporation, 2000), pp. 10-17.

And somehow to share with this Commission and them and others that this search for democracy throughout the world is a high priority for Senator Baucus and I, and that is so whether we are talking about the former Soviet Union, the billions of people in China, those that find themselves engulfed with Communist governments in North Vietnam and North Korea, and we have to find a way that democracy can prevail.

I think it's the accepted posture of the United States of America that unilateral embargoes don't work. Some say, well, you supported it in South Africa, but I think it's clear that this was an international effort and not just the United States of America.

But even more importantly it's been our great pride as Americans not to use food and medicine as a political weapon in order to influence foreign governments, and one has to take pride in that. We are a powerful nation not only economically but morally. And it difficult for anyone to believe that the government of Cuba represents a threat to the national security of the United States of America.

What is wonderful to see, however, is that the love that the American people have for the Cuban people exist the same way notwithstanding the terrible relationship that our government has with the Cuban government is the love and affection that the Cuban people have for the Americans.

We should be such good friends, and we should make certain that we never waiver in our battle to bring democracy to the people on this island. So the question before us in the Congress, and the reason we asked for your help, is what is the best way to do it.

And as controversial as the vote was to normalize trade with China, I became convinced that once the Chinese people had an opportunity to see how life was in America, how open markets worked, how people could go from poverty to successful economic and political positions, how we could shatter generations of poverty, and now in America anyone could hope and dream and possibly share in the prosperity of this nation, that this is the way to shatter the myths of Communism.

We had an example today as I came here leaving the floor of the House where a kid that was raised in Hell's Kitchen, went to public schools, went to Benjamin Franklin High School in my district in East Harlem, and now retires as the senior senator from New York: warfare, senator for 18 year, appointed by four presidents to their cabinet, ambassador. It's truly a case of "only in America."

Why, as Senator Baucus said, would we not want Cubans to understand what you can do in America? Why shouldn't we sent our kids there to learn and to teach? Why shouldn't we open our doors to Cuban travelers and families of Cubans and to Cuban politicians? Are we afraid that they are going to persuade American to become Communists?

Is this the political figure that was denied an opportunity to be the guest of the Congressional Black Caucus, are they afraid that the 38 members of the Congressional Black Caucus are going to throw away their passports and deny their citizenship and flee to Cuba?

Why do we do these stupid mean-spirited things? I'll tell you why. I'll tell you exactly why we do it. We don't want to embarrass our Democratic president. We don't want to embarrass our president who is running for president. We don't want to have an Elian Gonzalez case where we are going to debate whether a child belongs with one of his surviving parents. It's all politics. It's the electoral college of Florida, nothing else and nothing more.

Most of the people of the United States don't have any idea where Cuba is. They don't know whether we have missiles there or not. They don't know how many president Fidel Castro has outlived, and they have no idea of the suffering that we have placed on the Cuban people by denying food to be able to go there, denying medicine and an opportunity to get there. It is an un-American thing we are doing here in Cuba.

But for different reason than emotion, for different reasons than national security. For different reasons than politics, the embargo is going to be broken and it's because our farmers are looking for new markets.

And so we don't find the leadership in removing the embargo coming from the traditional democratic side of the aisle. It's coming from the party of my colleagues at this table. They are the ones that are saying now is the time to get on with free trade, to sell not just our goals politically, but to sell our goods economically.

And so we are going to have to do something because it's the right thing, to allay the fears of our friends in Florida and our friends in the Congress that we are not doing this to influence and to support Fidel Castro as president of Cuba. But we are not going to treat Fidel Castro any different than we do any other Communist leader. We are not going to cause the Cuban people to suffer because we dislike Fidel Castro. We dared not do it in the Soviet Union. We don't do it in North Vietnam. We don't do it in North Korea. And we're only doing it for domestic political policies, domestic political policies of the United States of America.

It's not fair to the kids that are being born in Cuba that they not have access to the basic foods that are necessary for them to survive as healthy people. And don't say we are doing this in order to get rid of Fidel Castro.

You have never seen the soldiers of Fidel Castro suffering of malnutrition. They get theirs. Who is not getting theirs are those kids. The agriculture production has been declined by 50 percent because of the inability to get the fertilizers that's necessary to produce their own food.

Commissioners, I'm telling you this is an un-American thing that we are doing. It's an undemocratic thing that we are doing. It flies in the face of the free market tradition that America enjoys. We are not doing this for our foreign policy because it does not protect America. We are not doing this for our trade policy because we are losing billions of dollars in trade. We are doing this because we are concerned as to how we will be viewed as Democrats and Republicans.

I truly believe if the Cuban Government had not shot down those defenseless planes that flew over illegally the island of Cuba, that we would have had normalization

today. But because of this brutal act and because they did not have to use force to do this, the Helms-Burton Act was enacted, and the discretion that the president had to remove the embargo then became a legislative issue.

But the way things are changing, I am convinced, that once this Commission produces its report, there will not be scintilla of evidence, there will not be a thread of reason to support to support why our country is engaged in this mean-spirited, hazard to the health of the people of Cuba.

So I thank you for taking time to bring together this report, and I hope that we will not polarize our people in the House and in the Senate, but once America can move forward, and as we intend to bring peace throughout the world that prosperity be a part of that, and certainly we hope that we can have the Cuban government included in the Caribbean Basin Initiative a part of our free trade policy in the region and around the world.[2]

The Honorable Ileana Ros-Lehtinen, U.S. Congresswoman, 18th District, State of Florida

CONGRESSWOMAN ROS-LEHTINEN: Thank you so much. Thank you, Mr. Chairman and members of the Commission.

Before I begin my testimony, I would like to reiterate my concern regarding the participation of Cuban government officials before this panel. Officials of this regime customarily manipulate the facts and history has shown they systematically violate the rule of law by acting against the international legal standards.

And further, as foreign nationals with diplomatic immunity, they are not bound by U.S. laws and are not compelled to tell the truth. Therefore, depending in any way on their statements as part of this investigation, I believe, is an exercise in futility.

What is most disconcerting about this situation is the inability of Cuban political prisoners, the opposition leader, dissidents, defectors to testify before the Commission. Some would ask what their contributions to this inquiry would be; that is, how could they provide any insight as to how U.S. sanctions against a Communist dictatorship affects the U.S. economy.

But I think the response is clear. Those who today languish in squalid jail cells devoid of human contact, deprived of any light, denied medical attention, tortured and beaten for their political and ideological belief, those will be Cuba's future leaders.

Today's political prisons and dissidents will be the presidents, the senators, the representatives, the ministers, the mayors of a free an democratic post-Castro Cuba.

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[2] Congressman Charles Rangel (D-New York), testimony before the Commission, Sept. 19, 2000, (Washington, DC: Heritage Reporting Corporation, 2000), pp. 18-25.

They will be the ones who will be determining which companies and what countries will have most favored nation status and Cuba's future free market economy. And as they conduct these evaluations, they will be thinking about who stood firmly with the Cuban people against their oppressor, who defended democracy, freedom and liberty over profit margins.

Who will benefit most in a democratic, free market Cuba? The answer, if we maintain sanctions against the regime, will be the United States. For the courage of our convictions, American companies, I believe, will be duly rewarded. I think there will be no resentment or anger toward the U.S. as there will be with those who totally and truly trade today with the tyrant. There will be only gratitude and a desire to rebuild the relationship enjoyed between Cuba and the U.S. before Cuba fell to Communism.

And as a result, sanctions on Cuba's totalitarian regime promotes U.S. commercial interests with the Cuban people and it will give American companies a competitive edge for future investment and trade with a democratic Cuba.

However, it is critical for the ITC and all U.S. government entities to remember the reasons why we have sanctions against Cuba's dictatorship. Sanctions are a foreign policy tool which empower the United States and enable us to act without resorting to military intervention.

The definition of U.S.-Cuba sanctions as an instrument of national security was reenforced by the World Trade Organization dispute settlement body in the case of the Libertad Act or the Helms-Burton law as it is commonly referred to.

And I regret that my honorable colleague, Congressman Charlie Rangel, with whom we enjoy a very positive working relationship, is not here. I wanted to clarify something that he had mistakenly said regarding the impulse behind the signing of the Helms-Burton law when he referred to the Brothers to the Rescue planes flying illegally.

In fact, not just the U.S. but every international body that has looked at this horrid crime has stated that they were in international air space. They were not flying illegally. And I would hope that he would correct that in the future. And because of them being in international air space, they were castigated by many international bodies for their heinous acts that resulted in the deaths of three U.S. citizens and one U.S. resident.

Sometimes the U.S. must act alone and assume our role as a global leader. Sometimes we have the support of our allies. One thing that's certain in the case of Cuba, the U.S. could not and cannot sit idly by while its national security is threatened, and while the Cuban people continue to be enslaved and subjugated.

Ironically, all those who resort to the multilateral argument as an excuse to lift the sanctions on the Castro regime seem to ignore the developments of the last few decades where multilateral sanctions were merely used as a first step to military involvement. Such was the case in the Persian Gulf War, in Haiti, in Bosnia and in Kosovo.

It is intellectually offensive for anyone to argue that multilateral sanctions on their own are anymore effective than unilateral ones.

To reiterate, any study on Cuba sanctions would not be complete if it did not address the purpose of the sanctions to determine if the need for those outweigh any potential economic cost if the safety of the American people is the higher priority than the possible growth of a particular sector of our economy.

Why do we maintain sanctions on Cuba's Communist regime, drug trafficking, support for terrorists and insurgents, espionage against the United States, harboring of fugitives from U.S. justice, human rights abuses and murder of American citizens?

Since the end of the Cold War there have been numerous investigations in cases documenting the Cuban dictatorship's involvement in coordination of the drug trade into the U.S. In April 1993, it was reported that the U.S. attorney for the Southern District of Florida had drafted an indictment charging the regime as a racketeering enterprise, and Cuban Defense Minister Raoul Castro, as the chief of a 10-year conspiracy to send tons of Columbian cartel cocaine through Cuba into the U.S.

In the fall of '96, the prosecution of Jorge Cabreva, convicted transporting almost 6,000 pounds of cocaine into the U.S. revealed specific information confirming cooperation between Castro officials and the Columbian cartels.

In February '99, Cuban defector and former spy, Major Juan Antonio Rodriguez Menier, testified in Paris that the Castro regime was involved in money laundering and drug trafficking. Further Menier testified that the regime had supported the terrorist acts of Carlos "the Jackal."

In January ' 99, a complaint filed in France by lawyer Serge Lewisch included evidence that Cuba had become a major conduit for drugs into the United States.

The Cuban dictatorship's espionage activities against the U.S. take on numerous manifestations and have multiple targets. In September '98, the FBI arrested several Cuban spies who were working to penetrate U.S. military installations in Florida, including SouthComm. MacDill Air Force Base and Boca Chica.

Earlier this year another operative for Cuba's intelligence service, who was a high-ranking INS official in south Florida, was arrested for spying for the Castro regime and was convicted of: (1) reviewing classified information and endangering U.S. national security; (2) using classified information for personal gain; (3) lying to FBI agents about contacts with Cuban agents; and (4) falsifying information on official security documents regarding his foreign business dealings.

Further, the dictatorship has joined with the Russian Federation and the Chinese government to obtain U.S. military, political, economic and commercial secrets through intelligence facilities at Lourdes and Bejucal. The Chinese military is working with the Cuban dictatorship to build an operate a new spy facility near Pinar del Rio.

Support for international terrorists and guerilla movements who seek to overthrow democratically elected governments in the hemisphere has been a longstanding commitment for the Castro regime. Its financial and military support for the Sandinastas in Nicaragua and the FMLN in El Salvador are legendary.

However, these pale by comparison to the Cuban dictatorship's creation and implementation of the drugs for money for arms operation which led to the growth of the FARC guerrillas in Columbia. These insurgents are often trained in Cuba by Cuban officials.

The State Department's report on global patterns of terrorism further documents the regime's close tie to terrorist regimes and Islamic extremist groups involved on terrorist attacks which have killed or injured American citizens. Many of these groups have branch offices in Cuba. The regime was involved in the mid 1960s in the torture of American POWs in Vietnam at a concentration called call "The Zoo," and is directly responsible for the murder of U.S. citizens on February 24, 1996.

This is the same regime who gives refuge to close to 80 police killers, murderers, kidnappers, armed robbers, hijackers, and other criminals who have been sentenced by U.S. courts but are living in luxury in Cuba with the full protection of the Castro regime.

Cuba's dictatorship has condemned by the United Nations Human Rights Commission and the Inter-American Commission on Human Rights for its gross disregard for human life and the fundamental rights of the Cuban people.

It has been labeled by the Organization of American States Special Rapporteur for freedom of expression as one of the worst violators of freedom of expression in the hemisphere.

Is this the type of regime we wish to reward by removing U.S. sanctions? Is the U.S. Government to tolerate and accept this behavior without taking any action to curtail or change it? Are we to allow this regime to act with impunity? Absolutely not.

Although a foreign policy tool, U.S.-Cuba sanctions also promote U.S. economic security and serve to protect American business interest and the nation's economy from the illegal, corrupt, command controlled, failed economic practices of Cuba's Communist regime.

In its 1995 report on foreign policy export controls, the Bureau of Export Administration of the Department of Commerce stated that even if its present impoverished stated Cuba could imperil U.S. jobs if trade restrictions are lifted.

A February '99 study by the Washington Economics Group led by a former U.S. undersecretary of commerce reenforced this point. The lifting of U.S. embargo and subsequent resumption of economic relations with Castro would make Cuba an importer of U.S. jobs. This study further states that the main beneficiary of such export activities would be the Castro regime as its constitution does not allow for property rights, and foreign investment requires joint venture with state-owned companies.

U.S. industries do not have to contend with the same situation faced by Canada's steel industry last year. Revenue Canada reported last year that steelmakers in Cuba were dumping steel at prices between seven percent to 31 percent below normal values. After the series of challenges the American's steel industry has had in the last two years, an issue which I know this Commission is intimately aware of, is the Castro regime the type of government with whom the U.S. wants to trade?

To gain insight into the positive effects that sanctions have on U.S. economy and the disastrous American economic interests are averting, one need to only listen to the accounts of investors who have suffered the consequences of trading with the regime. Their investors such as Arnold Guettler, a German Canadian, who claims that Cuba stole $1 million worth of machinery that he shipped to Havana. Guettler, whose Neo-Form company went into Cuba in '96 was quoted in several newspapers affirming, "I have seven contracts with the Cuban enterprises, and suddenly someone came along and said that those agencies were not authorized to do business with foreigners." Cuban authorities blocked him from entering the warehouse and seized his vehicle.

References have been made in the U.S. and Canadian newspaper reports to cases such as the one of an insurance company executive who grumbled that Havana was forcing his firm to channel all payments to clients in Cuba through government agencies.

There is also the case of an executive who claims to have some imported supplies to foreign-run hotels in Cuba for years, but suddenly a Cuban official ordered him to stop in January of '99, because only the government could engage in domestic trade. When the businessman protested, he was briefly thrown in jail, his car was confiscated and he was harassed at the Havana airport as he prepared to return to Canada.

U.S. analysts who monitor foreign investment in Cuba have been quote saying that Canadians are not the only victims. There are Mexicans complaining, Caribbeans complaining, French, Italians, people all over the world.

But sanctions also help to protect the U.S. taxpayer and the U.S. Treasury from the losses and the cost of failed investment, of lack of payments, defaulted loans, and these all could result from trading with Cuba's totalitarian regime. In '99, French industry reports, Moody's Investor Services and Investors' Business Daily, all listed Cuba's economic situation as poor, and gave the Castro regime the lowest of ratings.

Also in '99, the regime's short-term debt totaled over $2 billion. It owed the Paris Club over 10 billion, Spain over one billion, Japan about two billion, Russia over 18 billion. In '99, Britain's export credits guarantee department listed the regime's debt as 198 million.

Further, most of the governments the U.S. has sanctions against are not from countries that are major U.S. competitors, but Cuba is different. According to the ITC's August '98 report, Cuba has the potential to produce significant quantities of low-cost

vegetables, fruits and sugars and some tobacco products. Thus, for the most part, sanctions prohibiting trade with Cuba have had a beneficial effect on U.S. agricultural industries.

This statement points to one of the reasons why short-term costs of sanctions are too high and exaggerated. That is, the models used ignore offsetting changes which benefit other U.S. industries.

Nevertheless, even when those models are used, sanctions on foreign commerce have had only a small combined impact on the national economy as concluded by the Congressional Budget Office in its study published in March '99.

Even the North American Export Grain Association stated in its April 22, 1998, testimony before the ITC that the lifting of U.S. unilateral economic sanctions would not affect U.S. grain exports to any great extent.

Both of these references include all sanction countries. When this is broken down to only one country, Cuba, the economic cost of not trading with the Castro regime are almost nonexistent.

In the end the choice is clear. U.S. sanctions on Cuba's Communist regime must be maintained for national security, foreign policy and economic reasons. The benefits far outweigh the marginal cost. This is a reality understood well by real estate guru Donald Trump who in a June 25, 1999, Op-Ed article published in the opinion section of the *Miami Herald* stated, "My investment in Cuba would directly subsidize the oppression of the Cuban people. I would rather take a financial hit than become a financial backer of one of the world's most brutal dictators, a man who was once willing to aid in the destruction of my country."

I thank the Chairman and the members of the Commission for this opportunity.[3]

The Honorable Lincoln Diaz-Balart, U.S. Congressman, 21st District, State of Florida

CONGRESSMAN DIAZ-BALART: Before I provide my brief testimony, let me share my distinguished colleague's view that it is most unfortunate that you will be presiding a forum to an official of the Cuban dictatorship, a regime that for more than 40 years has brutally suppressed the freedom of the Cuban people. A Stalinist dictatorship, which refuses to democratize should not be given an opportunity, in my view, to comment before the United States International Trade Commission as though it were a representative elected government.

I think it is very unfortunate because, in addition to the reasons stated previously, our government, our government has systematically denied the opportunity to speak

[3] Congresswoman Ileana Ros-Lehtinen (R-Florida), testimony before the Commission, Sept. 19, 2000, (Washington, DC: Heritage Reporting Corporation, 2000), pp. 26-37.

openly to the Cuban people, and is given no such opportunity as we are generously extending to the Cuban dictatorship.

Moreover, the Cuban people are not free to openly express their views. This includes Cubans interviewed by your staff in Cuba. They are under extraordinary pressure by an ever-vigilant totalitarian dictatorship.

And finally, the member of the members of the Cuban interest section, including the representative to whom you have extended this forum, are active Cuban Ministry of the Interior or Cuban intelligence officers. That is the nature of the diplomatic "corps" of the Castro dictatorship.

The United States sanctions, Mr. Chairman and Commissioners, against the Castro dictatorship are the law of the land. And since the codification of those sanctions in 1996, they cannot be lifted or altered until the president certifies that a democratically elected government is in power in Cuba; that all political activity has been legalized; and that all political prisoners have been released.

I would also note that U.S. law permits and facilitates donations of food, medicine, medical supplies and equipment, clothing, building supplies and other humanitarian assistance to Cuba. According to the Department of Commerce, nearly $3 billion in humanitarian assistance went to Cuba from the United States between 1992 and 1997. In 1997, the Department of State report found that the United States is Cuba's most generous humanitarian donor.

U.S. law also permits the sale of medicine and medical supplies to Cuba, and some U.S. companies have taken advantage of that opportunity.

Now, I believe that much has been misrepresented about the goals of U.S. sanctions against the Castro dictatorship. The goal, in fact, is very simple: the liberation of all political prisoners, free speech and free elections. Those who do not see, in my view, the importance of conditioning democracy to the end of sanctions in Cuba do not understand what it meant, for example, for the democratic transitions in Spain and Portugal, for Europe to condition democracy for those countries' entry into the European Union.

We maintain sanctions and deny the U.S. market to the dictatorship in Cuba because it is in the national interest of the United States to have a democratic transition in Cuba, and because we believe that external pressure is critical to that transition, just as it was in South Africa, or Haiti, or Spain and Portugal. The U.S. embargo may be unilateral, but the importance of the U.S. economy to a country of 11 million people 90 miles from the United States cannot be overemphasized.

However the transition occurs in Cuba, whether by the death of the dictator or through a coup, it is critical that sanctions remain in place as they will under U.S. law until certain fundamental developments take place and sanctions constitute critical leverage for the Cuban people to achieve a democratic transition.

It is the belief of U.S. policy that it is simply as immoral as it is unacceptable to stand by and simply allow one of our closest neighbors to languish under a brutal dictatorship run by a psychopath and conduct business as usual. Whether we are alone or not, the United States, in our view, must stand by the people of Cuba. It is right for Cuba and it is right for the United States.

Now, experience shows us a number of important things. Those investors who ignore the goals of U.S. policy, who decide a free Cuba is not in their interest and choose to invest in Cuba before it is a democracy face grave risks.

As the ITC completes its study, I believe it should keep in mind the issues raised, for example, by a Spanish investor, Mr. Jose Fernandez Gonzalez, who recently ran a business in Castro's Cuba for several years. Quoting the Cuban patriot Martí, Fernandez Gonzalez noted, "I know the monster because I have lived in trails."

When Mr. Fernandez Gonzalez began to make profits in his tourist sector business, it was stolen from him by senior Cuban officials who branded him as "an enemy of the state," and deported him. Not unlike those thousands of American investors who lost $6 billion in properties, fees by the Castro dictatorship four decades ago, Mr. Fernandez Gonzalez just a few years ago was given no compensation and no opportunity to argue his case in court, in any court. He lost everything. He subsequently suggested several reasons why investors should not do business with the Castro dictatorship.

First, there is no rule of law in Cuba. The Castro dictatorship offers no judicial guarantees. Cuba's economy is owned and controlled by Castro. There is no contract sanctity, no independent courts, nowhere to turn with a business dispute. In Cuba, there are only shifting moods and whims of a demented dictator.

In fact, there is no private property and no independent business community in Cuba. All transactions are joint ventures with the Castro dictatorship. All foreign investors are forced to work deals through the Interior Ministry and deal with military officers and Cuban Communist officials rather than legitimate businessmen.

Three, there is no way to avoid becoming complicit with the dictatorship. All deals are done as joint ventures with the dictatorship. All foreign investors are subject to strict control and surveillance by State Security. At some point all investors and businessmen must become collaborators either by directly cooperating with the regime or by financially supporting it through profit sharing or bribes.

For instance, in order to maintain his investment Fernandez Gonzalez was compelled to pay bribes; spy on fellow investors, and foreign businessmen; act as an informant; and hire the contemporary equivalent of slave labor.

Four, foreign investors are prohibited from direct hiring. Investors must hire through a slave labor system set up by the Interior Ministry. Foreign investors pay a price in U.S. dollars for each worker who is, in turn, paid a wage in worthless Cuban pesos by the regime.

For instance, Fernandez Gonzalez paid $330 per worker per month, and the Interior Ministry paid the workers loaned to him 200 pesos; less than $5 a month.

Castro takes the dramatic margin in profit and then Interior Ministry guarantees that the worker will not strike, complain or attempt to collectively bargain with management. If there is a problem, the worker is simply removed and replaced by the Interior Ministry.

Five, obviously, Cuban workers are deeply resentful of this slave labor system and see foreign investors as collaborators in their oppression.

In conclusion, the Castro dictatorship does not present an intelligent nor ethical investment environment. However, should an investor take the risk in hopes of short-term profit, he does so with the potential of great lost, the greatest inevitable loss to a U.S. investor is the goodwill of the Cuban people who look to the United States for solidarity.

When the Castro dictatorship comes to its inevitable end, and it soon will, it is obvious that the Cuban people will seek to make an example of those foreign investors who collaborated with the Castro dictatorship. The joint ventures with the Castro dictatorship and those deals with the Interior Ministry will at a minimum all be terminated. Legal, penal and other consequences may ensue.

Why should the United States seek to be a part of this? It is better for us to stay clear of collaboration and side instead with the Cuban people.

Now, according to the Wall Street Journal/ Heritage Foundation Index of Economic Freedom, Cuba has the world's least economic freedom of 154 nations examined in its study. Its economy is "repressed, centralized, government planned, and ripe with graph and corruption."

"Foreign economic investment is highly controlled and unprotected by an independent legal framework. The economy is owned and run by Castro. All foreign investment," and I am continuing to read from parts of the Wall Street Journal/Heritage Foundation Index of Economic Freedom, "The economy is owned by Castro. Al foreign investments forced through joint venture arrangements with the dictatorship and private property is outlawed. In its current form and without reform, this is certainly not an economy that merits investment."

Now, Mr. Chairman and Commissioners, the historical record is also clear. Prior to the Castro takeover in Cuba, that country had among the most developed economies in Latin America. There is no telling where Cuba might have been today but for Castro's destruction of the economy. It is not U.S. sanctions that have caused Cuba's economic failure, but Castro's own insanity. The embargo as a cause of Cuba's economic destruction is a persistent myth promoted by the Castro dictatorship and its allies.

What is true is that despite Cuba's ability to trade with every nation in the world except the United States, Castro has ruined Cuba's once advanced economy.

According to a 1998 report by the Department of State, Zenith and Eclipse, A Comparative Look at Socio-Economic Conditions in Pre-Castro and Present Day Cuba, Cuba was perhaps Latin America's most advanced economy in 1958, and by some social and economic measures, it ranked parallel to the developed world.

For example, Cuba's infant mortality rate in 1957 was the lowest in Latin America and lower than four of today's G-7 nations.

Under any analysis, be it economic, moral or business risk-related, it would constitute a grave error to lift U.S. sanctions on the dictatorship unilaterally before a democratic transition in Cuba is underway.

And at this point, Mr. Chairman, I have no further comments. I also would urge you and the Commission to go to Cuba, but to insist on meeting with political prisoners, their families. Over 500,000 men and women have passed through Castro's political prisons.

I would ask that you insist on meeting with the families of the tens of thousands of the victims of the political repression, of the firing squads, of those drowned by order of the dictator, like the over 40 refugees, including more than 20 children who were drowned by order of the dictator on July 13, 1994.

I would ask that if you go to Cuba you seek to see the real Cuba.[4]

Summary of Hearing Testimony and Written Submissions

The following section summarizes testimony regarding the economic effects of U.S. sanctions with respect to Cuba provided at the Commission's public hearing for this investigation. Summaries of written submissions to the Commission for this investigation are provided for individuals and organizations that did not testify at the public hearing.

The Honorable Kenneth McClintock, Senator, Puerto Rico

Senator McClintock testified about the likely economic impact on Puerto Rico if U.S. sanctions with respect to Cuba were removed. He stated that ongoing economic improvements in Puerto Rico—including efforts to reduce unemployment, streamline the way of doing business, reduce public sector employment, and strengthen the tourism sector by expanding hotel room inventory—could "be affected if our national policy on Cuba is modified in a haphazard manner."[5] Senator McClintock also

[4] Congressman Lincoln Diaz-Balart (R-Florida), testimony before the Commission, Sept. 19, 2000, (Washington, DC: Heritage Reporting Corporation, 2000), pp. 38-46.

[5] Senator Kenneth McClintock, Puerto Rico, testimony before the Commission, Sept. 19, 2000, transcript, p. 47.

reported that many Puerto Rican businesses already take Cuba into account in their strategic planning, but he noted that "all of our strategic planning, however, will have little effect if our national government designs future policy on Cuba without taking into account our interest as part of your studies."[6]

Fernando Remirez de Estenoz, Principal Officer, Cuban Interests Section, Washington, DC and Deputy Minister of Foreign Affairs of the Republic of Cuba

Mr. Remirez de Estenoz testified on behalf of the Government of Cuba about the adverse economic impact of U.S. economic sanctions on Cuba. He stated that despite U.S. sanctions, Cuba implemented major socioeconomic programs during the 1960s and 1970s, including the eradication of illiteracy and significant advances in health care. However, after the loss of Soviet bloc economic assistance in 1990s, U.S. sanctions implemented by the Cuban Democracy Act and the Helms-Burton Act adversely affected Cuba's economy, particularly Cuba's access to certain medicines and medical supplies available only in the United States or from subsidiaries of U.S. companies. Mr. Remirez de Estenoz also reported that Cuba increasingly is the subject of interest by foreign investors, and that U.S. sanctions exclude U.S. businesses from Cuba's growing market.

William R. Hawkins, Visiting Fellow, U.S. Business and Industry Council

William R. Hawkins testified that Cuba would have to increase its exports to earn the foreign exchange it would need to import significant amounts of U.S. goods and services. He expressed the concern that "almost all of Cuban industry is nationalized, state-run. Seventy-six percent of the labor force works for the government . . . . This will be bad for some American producers . . . who are already having to compete with foreign imports from other low wage areas, as Cuba will be."[7]

Wayne S. Smith, Senior Fellow, Center for International Policy

Wayne S. Smith stated that U.S. economic sanctions had "virtually no impact whatever" on Cuba during the time when Cuba was receiving Soviet economic assistance. "It wasn't until the breakup of the socialist block and Cuba's loss of its

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[6] Ibid., pp. 48-49.

[7] William R. Hawkins, visiting fellow, U.S. Business and Industry Council, testimony before the Commission, Sept. 19, 2000, transcript, p. 99.

preferential trading relationship that its economy went into a tailspin."[8] He further testified,

> No unilateral embargo in history . . . has ever had much effect, and this one is no exception. It does complicate the economic situation for Cuba. It does have some impact. It makes it difficult for Cuba to obtain certain medicines. It complicates shipping. In some cases, it raises cost by forcing Cuba to import from greater distances and complicates access to credits and so forth. It might best be described as an inconvenience. But it is not an inconvenience without benefits. For one thing, it provides Castro with a ready excuse for economic failings.[9]

Frank J. Gaffney, Jr., President and CEO, The Center for Security Policy

Frank J. Gaffney testified that if U.S. economic sanctions with respect to Cuba were removed, U.S. taxpayers would be required to underwrite trade credits and export guarantees that Cuba would need in order to purchase U.S. goods and services.

> [T]he intensive interest that we're hearing from so many to get the embargo lifted, to enable American companies to go to Cuba and to sell their products is really a stalking horse for an unsaid agenda, which is to get the taxpayer in this country to pay subsidized credits and guarantees to make that transactions or those transactions possible.[10]

Mr. Gaffney's testimony also expressed concerns about the degree of commitment the Cuban Government has to economic reforms.[11]

Brian Latell, Professor, Georgetown University, School of Foreign Service

Brian Latell testified that people-to-people contacts between U.S. and Cuban citizens have increased and that the number of unlicenced U.S. visitors to Cuba has increased, despite U.S. economic sanctions. He reported that, according to Cuban Government data, about 160,000 U.S. citizens visited Cuba during 1999—a number significantly higher than the 82,000 U.S. visitors officially authorized by the U.S. Government to travel to Cuba. He also noted that between one-fifth and one-third of the Cuban population receives remittances from family members abroad.[12]

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[8] Wayne S. Smith, senior fellow, Center for International Policy, testimony before the Commission, Sept. 19, 2000, transcript, pp. 71-72.

[9] Ibid., pp. 73-74.

[10] Frank J. Gaffney, president and CEO, The Center for Security Policy, testimony before the Commission, Sept. 19, 2000, transcript, p. 81.

[11] Ibid., p. 122.

[12] Brian Latell, professor, Georgetown University, School of Foreign Service, testimony before the Commission, Sept, 19, 2000, transcript, pp. 84-85.

Richard Bell, President and CEO, USA Rice Federation

Richard Bell reported that, prior to the imposition of U.S. economic sanctions, Cuba was the largest export market for U.S. rice and accounted for nearly one-half of all U.S. rice exports of high quality long grain rice from the southern United States. Because of the sanctions, and to offset declining domestic production, Cuba purchases lower quality rice from East Asia. Mr. Bell also stated the United States allows the provision of rice to Cuba for humanitarian purposes. Mr. Bell reported that if Cuban rice consumption attained its full potential and "if the sanctions were removed, all of . . . [Cuba's rice demand] would come to the United States because of quality and freight advantages," equivalent to about 20 percent of current annual U.S. exports valued between $130 million to $175 million.[13]

Paula Stern, President, The Stern Group, Inc.

Paula Stern testified on potential U.S. food and medical sales to Cuba. According to Ms. Stern, "[t]here is potential to increase sales in the Cuban food and medical products market," and that the impact of those sales on the U.S. economy would be small, but beneficial.[14] Other key findings provided by Ms. Stern were:

- aggregate U.S. food and medical exports to Cuba could amount to $444 million, and approximately 6,000 associated U.S. jobs if economic relations were partially liberalized, and as much as $1.6 million with 20,000 associated jobs in a scenario of unrestricted trade;
- U.S. sales of medical goods could rise to $20 million in 5 years, and more than $600 million in the longer term under fully unrestricted trade scenario; and
- increased agricultural exports to Cuba would significantly increase the cargo tonnage passing through U.S. ports in Alabama, Louisiana, Mississippi, and Texas.

Ms. Stern also reported that U.S. trade with Cuba would be limited if U.S. export credits and financing were not made available, or if Cuban authorities did not accelerate and follow through with economic reforms and liberalization of the Cuban economy.

Philip Peters, Vice President, Lexington Institute

Philip Peters testified that removing U.S. economic sanctions and resuming trade with Cuba "would be neither a panacea for Cuba, nor a bonanza for U.S. businesses."[15]

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[13] Richard Bell, president and CEO, USA Rice Federation, testimony before the Commission, Sept. 19, 2000, transcript, p. 95.

[14] Paula Stern, president, The Stern Group, Inc., testimony before the Commission, Sept. 19, 2000, transcript, pp. 137-138.

[15] Philip Peters, vice president, Lexington Institute, testimony before the Commission, Sept. 19, 2000, transcript, p. 143.

The current conditions of the Cuban economy and the small size of the Cuban market would in general provide only limited opportunities for U.S. businesses. Moreover, Mr. Peters stated that U.S. suppliers would face difficulties meeting subsidies provided by Cuba's current trading partners, and would face stiff competition from foreign companies that already have staked out market positions in Cuba or that are able to undercut U.S. prices with subsidized products. Mr. Peters reported on the recent economic reforms undertaken by the Cuban Government, and on the current and likely future role of foreign investment in Cuba.

John S. Kavulich, President, U.S.-Cuba Trade and Economic Council, Inc.

John S. Kavulich testified that U.S. economic sanctions with respect to Cuba have had adverse impacts on both the economy of the United States and the economy of Cuba. Mr. Kavulich reported that the 1992 Cuban Democracy Act halted foreign subsidiaries of U.S.-based companies from engaging in trade with Cuba—trade that was cumulatively valued at $4.6 billion between 1980 and 1992. Mr. Kavulich stated that Cuba probably would not abandon its existing commercial relationships with current suppliers such as China, France, and Canada in the absence of U.S. economic sanctions, although he reported that Cuba probably would seek to purchase specific bulk food commodities from the United States including soy, rice, powdered milk, and wheat.

Thomas E. Cox, Director, U.S.-Cuba Business Council

Thomas E. Cox testified that Cuba offers limited prospects for foreign investors and limited potential for future trade because of economic policies of the Cuban Government. "As long as the Cuban Government adheres to its domestic economic implosion policy, no U.S. trade policy, opened or closed toward Cuba, will have any significant prospect for increasing commercial opportunity or economic development on the island."[16] Specific problem he cited included Cuba's lack of hard currency to buy imports, Cuba's high commercial risk as appraised by credit rating services, and Cuba's limited consumer market. Mr. Cox stated that Cuba ranks behind both Vietnam and China in terms of implementing significant economic reforms.[17]

Otto J. Reich, President, RMA International, Inc.

Otto J. Reich testified that Cuba has "enormous economic potential and represents a great market for U.S. products," but this potential will not be reached until Cuba

[16] Thomas E. Cox, director, U.S.-Cuba Business Council, testimony before the USITC, Sept. 19, 2000, transcript, p. 162.
[17] Ibid., p. 187.

undertakes further reforms.[18] He further stated that Cuban domestic economic policies, rather than U.S. economic sanctions, are the cause of Cuba's ongoing economic problems. Mr. Reich reported that Cuba currently is able to purchase virtually anything it needs, including U.S. patented medicines, from other countries "at a fraction of . . . the cost in the United States."[19] Mr. Reich further stated that the 1992 Cuban Democracy Act and the 1996 Cuban Liberty and Democratic Solidarity Act, by tightening the U.S. economic sanctions, increased economic pressure on the Cuban Government because Cuba no longer received Soviet bloc economic assistance.

Kirk Reagan Menendez, General Counsel, Jorge Mas Canosa Freedom Foundation

Kirk Reagan Menendez testified that U.S. economic sanctions have discouraged foreign investment in Cuba. He further stated that "the biggest obstacles in Cuba to increase foreign investment is the Cuban state itself," and that some foreign investors are exiting the Cuban market because of problems dealing with the Cuban Government.[20]

Dennis K. Hayes, Executive Vice President, The Cuban American National Foundation

Dennis K. Hayes testified that Cuba's domestic economic problems are the result of Cuban Government policies rather than U.S. economic sanctions. Mr. Hayes stated that Cuba was a net exporter of food before the current Cuban Government assumed power, but than now Cuban farmers have no incentives to grow food in excess of their production quotas. He also stated that the limited economic reforms implemented by the Cuban Government stem from the loss of Soviet economic assistance, rather than from a genuine desire for economic reform.[21]

Lazaro Alvarez, Committee Chairman, United Cuban Organizations

Lazaro Alvarez testified that Cuba is able to purchase from other countries any of the goods and services it needs, despite the U.S. economic sanctions . However, Cuba lacks sufficient economic resources to make such purchases as "the result of 40 years

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[18] Otto J. Reich, president, RMA International, Inc., testimony before the USITC, Sept. 19, 2000, transcript, p. 169.

[19] Ibid., p. 170.

[20] Kirk Reagan Menendez, general counsel, Jorge Mas Canosa Freedom Foundation, testimony before the USITC, Sept. 19, 2000, transcript, p. 231.

[21] Dennis K. Hayes, executive vice president, The Cuban-American National Foundation, testimony before the USITC, Sept. 19, 2000, transcript, p. 238.

of mismanagement by Castro's government."[22] Mr. Alvarez stated that "[lifting the embargo will not improve living standards for most Cubans. Productivity remains low and there are no incentives for growth or efficiency."[23]

Jaime Suchlicki, Director, Institute for Cuban and Cuban-American Studies, School of International Studies, University of Miami

Jamie Suchlicki testified that, despite the economic reforms that were introduced in Cuba in the early 1990s, "many of the reforms . . . have been slowed down and some of them have been reversed," and that "Cuba is not moving into a market economy . . . [and] not changing into a capitalist society."[24]

Mr. Suchlicki expressed the concern that earnings from increased trade and tourism would be use to further consolidate power by the Cuban leadership, rather than to promote Cuban economic development. He also stated that U.S. imports of certain Cuban products, such as citrus, rum, tobacco products, might injure U.S. domestic production and that U.S. imports of Cuban sugar might adversely impact sugar production in other Caribbean or Central American countries.

Anthony F. Kirkpatrick, Assistant Professor, Department of Anesthesiology, University of South Florida

Anthony F. Kirkpatrick testified that U.S. economic sanctions with respect to Cuba impede Cuba's access to food and medicine. He stated that, "50 percent of the most important, indispensable drugs in the world are subject to U.S. jurisdiction and therefore subject to the onerous requirements of the embargo."[25]

Nelson Denlinger, Vice President, U.S. Wheat Associates, Wheat Export Trade Education Committee

Nelson Denlinger testified that there have been no sales of U.S. wheat to Cuba because U.S. sanctions bar sales to Cuban government-owned wheat mills and prohibit ships landing goods in Cuba from entering U.S. ports for 6 months after leaving Cuba. He reported that Cuba purchases most of its wheat from Argentina, Canada, and European Union (EU) member countries. Mr. Denlinger stated that, over time, Cuba

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[22] Lazaro Alvarez, committee chairman, United Cuban Organizations, testimony before the USITC, Sept. 19, 2000, transcript, p. 245.

[23] Ibid., p. 248.

[24] Jaime Suchlicki, director, Institute for Cuban and Cuban-American Studies, School of International Studies, University of Miami, testimony before the USITC, Sept. 19, 2000, transcript, p. 253.

[25] Anthony F. Kirkpatrick, assistant professor, Department of Anesthesiology, University of South Florida, testimony before the USITC, Sept. 19, 2000, transcript, p. 264.

probably would purchase U.S. wheat in large volumes in the absence of sanctions because U.S. ocean freight rates are about one-half the rates of competitive wheat from the EU, giving U.S. wheat an advantage of $8-10 per ton.[26] He estimated that the Cuban wheat market would grow over the long-term to a level close to that of Venezuela, a country of comparable size; Venezuela currently imports 1 million tons of wheat annually. Mr. Denlinger stated that credit availability is an important factor in sales of U.S. wheat to most markets, and that Cuba is not credit worthy at this time. But, he noted, third party (non-U.S.) financing is available for U.S. wheat exports, and there are signs that such credit could be obtained.

Raymond C. Offenheiser, President, Oxfam America

Oxfam is a non-governmental humanitarian and development organization that reports to be the largest U.S. provider of funding for development projects in Cuba. Raymond C. Offenheiser testified that U.S. economic sanctions with respect to Cuba have adversely affected the availability of food and, consequently, the general state of nutrition in Cuba. He stated that recent improvements in the Cuban economy make Cuba a potential customer for U.S. exports.[27]

Lissa Weinmann, Communications Director, Americans for Humanitarian Trade with Cuba

Americans for Humanitarian Trade with Cuba is a national coalition that advocates easing U.S. unilateral sanctions with respect to Cuba. Lissa Weinmann testified that removing the sanctions would be beneficial for U.S. farmers and agricultural interests, particularly in light of declining U.S. domestic agricultural subsidies. Ms. Weinmann also reported that U.S. ports, such as those of Mobile, Alabama, Lake Charles, Louisiana, as well as ports in Florida and Texas would benefit from increased commerce with Cuba. Ms. Weinmann also expressed concerns about the costs to U.S. taxpayers of enforcing the economic sanctions with respect to Cuba.[28]

William M. Paparian, Former Mayor of Pasadena, California, Law Office of William M. Paparian

William M. Paparian testified on the economic and social costs to Cuba of U.S. economic sanctions.

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[26] Nelson Denlinger, vice-president, U.S. Wheat Associates/Wheat Export Trade Education Committee, testimony before the USITC, Sept. 19, 2000. p. 322.

[27] Raymond C. Offenheiser, president, Oxfam America, testimony before the USITC, Sept. 19, 2000, transcript, pp. 298-307.

[28] Lissa Weinmann, communications director, Americans for Humanitarian Trade with Cuba, testimony before the USITC, Sept. 19, 2000, transcript, pp. 307-312.

Kirby Jones, President, Alamar Associates

Kirby Jones testified that Cuba has experienced numerous and profound changes over the past 40 years which have significant implications for U.S. companies seeking to do business there. According to Mr. Jones, Cuba's economy now "is a mix capitalism with socialism, and not just a little dose of capitalism."[29] As examples, Mr. Jones reported that the U.S. dollar is used as everyday currency in Cuba, subsidies to most former Cuban government-owned enterprises have been halted, and foreign investment in Cuba is ubiquitous.

Joe Green, Director for Latin American Sales, Caterpillar Inc.

Joe Green testified that, before the Castro regime, Caterpillar was an independent dealer in Cuba that sold construction, agricultural, and mining equipment, and the Cuban market was similar to that of Puerto Rico. After U.S. sanctions were imposed, Caterpillar products in Cuba were replaced first with Russian equipment, later with European and Japanese equipment. Mr. Green reported that potential Cuban demand for Caterpillar products could be significant. However, he stated that export opportunities in the absence of sanctions would be limited in the short term, because meaningful business probably would not occur until fundamental economic and political reforms take place in Cuba.[30]

*Frank D. Kittredge, President, National Foreign Trade Council and Vice Chairman, USA*Engage*

Mr. Kittredge expressed concern over the proliferation of U.S. unilateral sanctions during the 1990s, both at the federal and local level. According to Mr. Kittredge, sanctions prevent U.S. firms from taking advantage of markets that could be easily serviced by the United States, thus reducing exports and jobs in the United States. Moreover, the use or threat of use of economic sanctions diminishes the ability of the United States to be a reliable global supplier of goods and services. Sanctions also complicate relations with other trading partners, especially if the sanctions are not multilateral in nature.[31]

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[29] Kirby Jones, president, Alamar Associates, testimony before the USITC, Sept. 20, 2000, transcript, p. 362.

[30] Joe Green, director for Latin American Sales, Caterpillar Inc., testimony before the USITC, Sept. 20, 2000, transcript, pp. 368-372.

[31] Frank D. Kittredge, president, National Foreign Trade Council, and vice chairman, USA*Engage, testimony before the USITC, Sept. 20, 2000, transcript, pp. 372-379.

Nicolás J. Gutiérrez, Secretary and General Counsel, National Association of Sugar Mill Owners of Cuba

Nicolás J. Gutiérrez testified that the National Association of Sugar Mill Owners of Cuba represents the owners of 161 sugar mills that were expropriated by the Cuban Government in 1959 and 1960. Mr. Gutiérrez's stated that the organization he represents is opposed to any relaxation of U.S. sanctions with respect Cuba because the Cuban Government has not provided compensation for expropriated U.S. property.[32]

Antonio Gayoso, Economic Advisor, Economic Advisory Services and Sugar Producers of Cuba

Antonio Gayoso testified on the general objectives of U.S. sanctions with respect to Cuba. He reported that U.S. businesses would encounter certain difficulties in doing business in Cuba if sanctions were lifted, including Cuba's strict regulations with respect to employment. Mr. Gayoso also stated that, without changes in the Cuban economic and political systems, an open trade relationship with Cuba probably would not lead to significant bilateral trade.[33]

Ignacio E. Sánchez, Shareholder, Verner, Liipfert, Bernhard, McPherson and Hand, Chartered

Ignacio E. Sánchez testified that U.S. economic sanctions effectively have been in place only since the beginning of 1993, because Cuba received Soviet economic assistance prior to that time. He also reported that U.S. sanctions have contributed to the "dollarization" (the use of U.S. currency) of the Cuban economy and have facilitated the opening of Cuba to foreign investment from countries other than the United States. Mr. Sánchez also reported that Cuban products could have an unfair advantage in the U.S. market in the absence of sanctions because of reported unfair labor practices allowed under Cuba's foreign investment regime.[34]

Constantine C. Menges, Senior Fellow, Hudson Institute

Mr. Menges testified that ending U.S. sanctions would provide the Cuban Government with hard currency resources that Cuba would be used for political goals rather than to promote economic development.[35]

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[32] Nicolás J. Gutiérrez, secretary and general counsel, National Association of Sugar Mill Owners of Cuba, testimony before the USITC, Sept. 20, 2000, transcript, p. 380.

[33] Antonio Gayoso, economic advisor, Economic Advisory Services and Sugar Producers of Cuba, testimony before the USITC, Sept.20, 2000, transcript, pp. 453-459.

[34] Ignacio E. Sánchez, shareholder, Verner, Liipfert, Bernhard, McPherson and Hand, Chartered, testimony before the USITC, Sept. 20, 2000, transcript, pp. 459-466.

[35] Constantine C. Menges, senior fellow, Hudson Institute, testimony before the USITC, Sept. 20, 2000, transcript, p. 474.

William A. Messina, Executive Coordinator, University of Florida

William A. Messina testified that reported that research at the University of Florida indicates that Cuba is a potential market for $700 million to $1 billion in annual U.S. exports of agricultural products. This level could be achieved from 5 to 7 years after sanctions are removed. Mr. Messina also testified that a major issue to be resolved is U.S. market access for Cuban sugar exports. In addition, he reported that Cuba would like to revitalize its sugar industry and diversify its agricultural sector away from sugar, but that Cuba would need access to U.S. financing and investment to do so.[36]

Matthew T. McGrath, Council, Barnes, Richardson & Colburn, on behalf of Florida Citrus Mutual

Matthew T. McGrath testified that, in the absence of sanctions and assuming the application of column 1 general rates of duty coupled with no significant phytosanitary restrictions, Cuba could immediately supply 15 percent or more of the U.S. fresh grapefruit and grapefruit juice demand; up to 7 percent of fresh oranges, and at least 3 percent of U.S. orange juice demand.[37] Mr. McGrath reported that Florida grapefruit growers are particularly concerned that Cuban grapefruit would enter the U.S. market up to 2 months in advance of the Florida season. Because tariff rates on fresh grapefruit are lower in September and October than in the rest of the year, Mr. McGrath stated that Cuban grapefruit with such early access would drive down U.S. grapefruit prices. According to Mr. McGrath, the University of Florida estimated that the Florida grapefruit industry would lose about $40 million in revenue, and about 2,000 industry jobs out of approximately 12,000 jobs. Cuba's advantages over Florida reportedly include lower labor costs, higher foreign investment, and lower transportation costs to the United States relative to foreign suppliers.[38]

In its post-hearing statement, the Florida Citrus Mutual (FCM)[39] wrote that opening of the U.S. market to both fresh and processed citrus from Cuba would have a significant negative impact on the U.S. citrus industry overall, and could devastate the grapefruit industry. FCM wrote that it would oppose both the removal of Cuba from the list of countries that receive U.S. column 2 tariff rates, and the inclusion of citrus products from Cuba on the list of articles eligible to receive preferential treatment under the Caribbean Basin Economic Recovery Act (CBERA). FCM stated that Brazilian-owned citrus processors may be interested in investing in Cuban orange and grapefruit groves, and juice extraction and blending plants for access to the U.S. market, but FCM is not aware of any U.S.-owned companies interested in investing in the Cuban citrus

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[36] William A. Messina, executive coordinator, University of Florida, testimony before the USITC, Sept. 20, 2000, transcript, pp. 519-526.

[37] Matthew T. McGrath, council, Barnes, Richardson & Colburn, on behalf of Florida Citrus Mutual, testimony before the USITC, Sept. 20, 2000, transcript, p. 529.

[38] Ibid., pp. 531-532.

[39] Matthew T. McGrath, counsel, Barnes, Richardson & Colburn, on behalf of Florida Citrus Mutual, post-hearing submission received Oct. 4, 2000.

industry. According to FCM, U.S. imports of Cuban bulk concentrated citrus juice would depress bulk commodity prices but not necessarily result in lower prices to consumers, because lower bulk prices would benefit processors in the form of higher profit. FCM wrote that such citrus juice such citrus juice would be less competitive in the United States with column 2 tariff rates, but imports would still be possible.

Timothy J. Galvin, U.S. Department of Agriculture, Foreign Agricultural Service

Timothy J. Galvin wrote that U.S. agricultural exports to Cuba could reach $300 million annually within a year or two of lifting the sanctions, depending on the availability of U.S. export credit guarantees. Mr. Galvin reported that imports from Cuba could reach $1 billion annually within 5 years if economic relations were normalized and U.S. investment in the Cuban economy permitted. Mr. Galvin stated that wheat, feed grains, rice, beans, vegetable oils, and meat and dairy products offer the greatest potential for U.S. exports to Cuba. Without the availability of U.S. export assistance programs, Mr. Galvin estimated that the Cuban market for U.S. agricultural exports would be only $25 million to $50 million annually. Mr. Galvin reported that the United States would hold advantages over its foreign competitors in the Cuban market with respect to market proximity, quality, and competitiveness.[40]

Lawrence H. Theriot, Lawrence Theriot &Associates

Mr. Theriot reported in his submission that the economic costs to the U.S. economy of U.S. sanctions with respect to Cuba include "the loss of $1 billion annual export market for U.S. agriculture, consumer and capital goods," and that the economic costs to the Cuban economy include "the inability to trade with it's natural and nearby trade partner . . . due to extraordinary cost of transporting and maintaining excessive inventories of all essential goods , especially food."[41]

American Farm Bureau Federation

The American Farm Bureau Federation (AFBF) wrote that Cuba represents a potential agricultural import market of $700 million annually, particularly for meat and dairy products, cereals, fruits and vegetables, animal feed, soybean products, and fish products, as well as agricultural inputs, such as fertilizers, pesticides, and farm machinery. AFBF stated that the United States would compete for a significant share of

[40] Timothy J. Galvin, Administrator, Foreign Agricultural Service, U.S. Department of Agriculture, written submission received Sept. 28, 2000.

[41] Lawrence H. Theriot, Lawrence Theriot & Associates, written submission received Oct. 3, 2000.

this market in the absence of sanctions; however, the United States would face competition from Cuban imports in citrus, vegetables, fish, and sugar.[42]

Sugar Cane Growers Association of Cuba, Asociaciòn de Colones de Cuba, Inc.

The Sugar Cane Growers Association of Cuba, a non profit, nongovernmental corporation representing 65,000 sugarcane growers and 161 local chapters in Cuba, provided background data and information from 1959 to the present on the Cuban sugar industry and on the Cuban sugar quota. The written submission described the impact of Cuban policies and the impact of U.S. economic sanctions on the Cuban population.[43]

Florida Fruit & Vegetable Association

The Florida Fruit and Vegetable Association (FFVA) wrote that Cuba presents a significant potential threat to Florida agricultural industries, particularly winter vegetables, citrus, sugar, and tropical fruit. FFVA stated that Cuba has a competitive advantage with respect to labor costs and environmental regulations. FFVA noted that the Florida industry has concerns about the introduction of pests and diseases from Cuban agricultural products, and believes that phytosanitary survey and risk assessment of Cuba should be conducted before trade is allowed. The FFVA also expressed concern about the adverse effect on the Florida economy of trade with Cuba on U.S. farmers and ranchers who have made significant capital investments, such as packing, processing, storage, and distribution facilities.[44]

Indian River Citrus League

The Indian River Citrus League (IRCL), a citrus trade association representing 1,600 citrus growers along the east coast of Florida, wrote that it is strongly opposed to any changes in current law that would authorize imports of fresh or processed Cuban citrus products into the United States. IRCL noted that Cuba's industry is highly subsidized, transportation costs to the United States would be low, Cuban labor costs are low, and Cuba has no environmental standards. Thus, Cuban grapefruit would adversely affect U.S. production because Cuban product could be shipped before the start of the Florida season. IRCL stated that the Florida Department of Citrus estimated that each

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[42] Richard W. Newpher, executive director, Washington office, American Farm Bureau Federation, written submission received Oct. 4, 2000.

[43] Silvestre Piña, president, Sugar Cane Growers Association of Cuba, Inc. (Asociaciòn de Colones de Cuba), written submission received Oct. 4, 2000.

[44] Douglas C. Bournique, executive vice president, Indian River Citrus League, written submission received Oct. 4, 2000.

million cartons of fresh grapefruit Cuba might export to the United States would depress the price of Florida fresh grapefruit by 17 cents per carton. The submission reported that the U.S. grapefruit market is already so competitive that the 5-year average net return to IRCL growers is a negative $3.12 per acre, so a further decline in prices from Cuban citrus would lead to larger losses for growers.[45]

Florida Tomato Exchange

The Florida Tomato Committee (FTC) wrote that imports of Cuban vegetables, particularly tomatoes, would compete directly with—and harm—Florida growers. FTC stated that the North American Free Trade Agreement provided an example of the harm done to the Florida vegetable industry by increased imports, as well as the importance of import safeguard measures. According to FTC, import safeguard measures should consider perishability and seasonality of imports. FTC stated that the Florida vegetable industry cannot compete with subsidized imports from Cuba, and expressed concern regarding the potential introduction into Florida of harmful pests and diseases.[46]

American Society of Travel Agents, Inc.

The American Society of Travel Agents, Inc. (ASTA), wrote that U.S. restrictions on travel to Cuba by U.S. citizens injure the travel industries of both the United States and Cuba. Moreover, ASTA stated that travel restrictions cause incalculable economic loss from missed business opportunities and intrude upon the inherent U.S. Constitutional right to travel. ASTA stated that the U.S. travel agent industry should not be denied the opportunity to sell travel and accommodation arrangements for a full and unrestricted array of destinations, including to about 1 million U.S. tourists who would visit Cuba in the first year travel restrictions are lifted, rising to 5 million U.S. tourists visiting Cuba annually within 5 years.[47]

Austin, Nichols & Co./Pernod Ricard, S.A.

Austin, Nichols & Company (ANC) is a wholly-owned U.S. subsidiary of Pernod Ricard, S.A. (France). ANC is the distiller of "Wild Turkey" bourbon and is the U.S. marketer of numerous brands owned by Pernod Ricard. Pernod Ricard has a joint venture investment, Havana Club Holdings (HCH), with a Cuban government-owned

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[45] Michael J. Stuart, president, Florida Fruit & Vegetable Association, written submission received Oct. 4, 2000.

[46] Reginald L. Brown, executive vice president, Florida Tomato Exchange, written submission received Oct. 3, 2000.

[47] Burton J. Rubin, general counsel, American Society of Travel Agents, Inc., written submission received Oct. 3, 2000.

entity to distribute Cuban rum internationally under the "Havana Club" label. ANC wrote that Section 211 of the U.S. Omnibus Appropriations Act[48] violates the General Inter-American Convention for Trade Mark and Commercial Protection and the WTO Agreement on Trade- Related Aspects of Intellectual Property Rights, and that Section 211 may endanger U.S. trademarks and trade names world wide. ANC wrote that it anticipated exporting whiskey to Cuba, and that it estimates sales of Havana Club rum in the United States to exceed 1 million cases annually in the absence of sanctions. ANC stated it also might import Cuban rum in bulk and bottle in the United States, increasing both U.S. sales and U.S. employment.[49]

[48] See the discussion of Section 211 of the Omnibus Appropriations Act in chapter 2, and the discussion of distilled spirits in chapter 5, for further information.

[49] Mark Z. Orr, Vice President, North American Affairs, Austin, Nichols & Co./Pernod Ricard, S.A., written submission received Oct. 5, 2000.

APPENDIX E
Telephone Survey

Telephone Survey

Overview

As part of the investigation, the trade analysts the Commission conducted an informal telephone survey of U.S. business, trade associations and other relevant entities in order to assess the historical effects of U.S. economic sanctions with respect to Cuba on U.S. industries, and to estimate the effects of re-establishing economic relations with Cuba. The telephone survey worksheet used by analysts can be found at the end of this Appendix. This survey was approved by the U.S. Office of Management and Budget; approval was granted on June 7, 2000, and expired on November 30, 2000 (approval number 3117-0195).

More than 20 analysts in the Commission's Office of Industries conducted the survey. Typically, analysts made an initial contact with firms and associations to explain the study and purpose of the survey. A survey was transmitted to those firms and associations expressing an interest in participation, giving them time to compile their responses. Responses to the survey were returned to the Commission by mail or fax or provided in follow-up telephone conversations with USITC staff. Several of the organizations contacted chose not to respond specifically to the survey, but nevertheless provided useful background information and provided views on the issues covered in the survey. A summary of the responses in shown in the tabulation below:

Sector	Number contacted	Number sent survey	Number completed survey
Services . . .	55	43	22
Agriculture	87	84	35
Other	108	84	29
Total	250	211	86

As shown in the tabulation, a total of 250 companies and trade organizations were contacted, of which more than 200 were sent surveys. The 86 completed surveys represented a response rate of over 40 percent—a response rate that compares favorably with previous USITC industry surveys. The completed surveys were fairly evenly distributed between services, agriculture, and other sectors. The survey provided several insights into how U.S. industries view sanctions with respect to Cuba, and indicated which industries see potential business opportunities in the absence of sanctions. General observations that can be made based on the survey responses are:

- The historical impact of sanctions on U.S. trade and investment in Cuba varies somewhat by product sector. Overall, the effects have been small and short term in duration.

- Following the imposition of sanctions, U.S. firms adjusted relatively quickly by finding alternate export and investment markets. U.S. claims for compensation for expropriated property remain an important investment issue, particularly in the sugar and citrus industries.
- While some industries see opportunities in Cuba, U.S. firms for the most part see Cuba as a very small market with limited growth potential even in the absence of sanctions.
- U.S. industries view the trade and investment environment in Cuba with great uncertainty. Of most concern are the risks associated with the political climate and economic conditions in Cuba. Government bureaucracy and lack of transparency in legal system and investment policies probably would deter some potential U.S. investors in the absence of sanctions.
- Most respondents believed the resumption of historical trading and investment patterns with Cuba would be a long-term process, taking 5 to 10 years.
- With U.S. sanctions in force for nearly 40 years, several firms indicated that Cuba is rarely considered as a potential export market. Nonetheless, most entities surveyed reported that sanctions should be removed.

List of Companies, Associations, and Other Entities Contacted

Services

Air Transportation and Maritime

American Association of Port Authorities
American Airlines
Carnival
Continental Airlines
Crowley Shipping
Cruise Line International Association
Delta Air Lines
Dallas-Fort Worth Airport
DHL
Gulfstream Airlines
ICCO (trade association for the cruise line industry)
Los Angeles International Airport
Miami International Airport
Port Authority of Jacksonville, Florida
Port Authority of New Orleans
Sanchez Consulting (consultant to Florida Ports Council)
Sealand/CSX

Seaboard Marine
The International Air Cargo Association
Tropical Shipping
United Airlines
U.S. Department of Transportation
U.S. Department of the Treasury

Banking

American Express
Bankers Association for Foreign Trade
Bank of America
Chase Manhattan
Citigroup
Comerica
First Union Bank
Investment Company Institute
State Street Bank

Insurance

American Council of Life Insurance
American Insurance Association
American International Group
Chubb Insurance Corporation
Council of Insurance Agents and Brokers
Institute for International Insurance Development
International Insurance Council
Jordan Burke, LLP
Pan-American Life Insurance Company
Principal Financial Group
Reinsurance Association of America
Rice Fowler, LLP

Telecommunications

AT&T
Bell Atlantic (Verizon)
MCI Worldcom
Bell South
SBC Communications

Tourism

American Hotel and Motel Association
Travel Industry Association of America
American society of Travel Agents
Greater Miami Convention and Visitors Bureau

Marriott International
U.S. Tour Operators Association

Agriculture

Livestock

National Cattlemen's Beef Association
National Pork Producers Council
USA Poultry and Egg Export Council

Fish and Fish Products

National Fisheries Institute
United States Tuna Foundation

Grains

Cargill, Inc.
Kansas Wheat Commission
National Corn Growers Association
National Renderers Association
North American Export Grain Association
U.S. Grains Council
U.S. Rice Producers Association
U.S. Wheat Associates
U.S. Wheat Export Education Committee
USA Rice Federation

Animal Feed

Albion Laboratories, Inc.
American Feed Industry Association
Chr. Hansen, Inc.
Darling International, Inc.
Diamond V Mills
DuCoa L.P.
Furst-McNess Co.
Heterochemical Corp.
Material Storage Systems, Inc.
Merrick Animal Nutrition, Inc.
National By-Products, Inc.
North American Millers Association
Old Bridge Chemicals, Inc.
Pennfield Corporation
Ramgen, Inc.

Rockingham Mill
Supreme Feed Mills, Inc.

Fats and Oils

American Soybean Association
Archer Daniels Midland Company
National Cottonseed Products Association
National Oilseed Processors Association

Winter Vegetables

Brooks Tropicals
Dole Food Co.
Florida Fresh Fruit and Vegetable Association
Florida Tomato Committee

Tropical Fruit

Brooks Tropicals
Calavo Growers of California
Chiquita Brands International
Del Monte Fresh Produce Co.
Dole Foods, Inc.
Northwest Horticultural Council
Tropical Fruit Growers of Florida
U.S. Apple Association

Citrus

Argentine Citrus Producers
Barnes, Richardson & Colburn
DNE
Florida Citrus Mutual
Florida Department of Agriculture
Florida Department of Citrus
Indian River Citrus League
Seald Sweet

Sugar

American Crystal
American Sugar Alliance
American Sugarbeet Growers Association
Florida Crystals Corporation
Florida Sugar Cane League
National Association of Sugar Mill Owners of Cuba
United States Cane Refiners' League

United States Sugarbeet Association
University of Florida, Institute of Food and Agriculture Sciences

Distilled Spirits

Bacardi & Company Limited
Distilled Spirits Council of the United States
Pernod Ricard

Cigars

Caribe Imports
Cigar Association of America
Consolidated Cigar Corporation
J.C. Newman Cigar Co.
Pedron Cigars
Swedeish Match North America
Swisher International

Cotton

Cotton Council International
Irving Vigdor

General Agriculture

American Bakers Association
American Farm Bureau Federation
Arkansas Farm Bureau
California Farm Bureau
Grocery Manufacturers of America
Illinois Farm Bureau
Independent Bakers Association
Iowa Farm Bureau Federation
Minnesota Farm Bureau
North Dakota Farm Bureau

Other Sectors

Pharmaceuticals

American Home Products (Wyeth Laboratories)
Aventis
Generic Pharmaceutical Industries Association
National Association of Pharmaceutical Manufacturers
Novartis

Pharma
TEVA Pharmaceutical Industries Association
Wilkie, Farr

Textiles and Apparel

American Apparel Manufacturers Association
American Chamber of Commerce, Cuba
American Fiber Manufacturers Association, Inc.
American Textile Manufacturers Institute
American Yarn Spinners Association
Burlington Industries, Inc.
Canadian Apparel Federation
Canadian Chamber of Commerce, Mexico City
Canadian Textiles Institute
CanaMexport, S.A. de C.V.
Clothing Manufacturers Association of America
Consoltex
Crown Crafts, Inc.
Guilford Mills Corporation
IDS Consulting
Jockey International
Levi Strauss
National Knitwear and Sportswear Association
Nygard International
Sara Lee Corporation
SMART
U.S.-Cuba Trade and Economic Council, Inc.
Warnaco

Nickel and Cobalt

Allegheny Ludlum
Carpenter Technology Corp.
CRU International
Edward J. Blot Associates
Electralloy, Inc.
ERAMET
Falconbridge International
Ferguson Metal
Glencore International
Heckethorn Manufacturing Co.
INCO
Latrobe Steel
Materials Resource Group
Phoenix International Resources
QNI International
Specialty Metals, Inc.

The Cobalt Institute
Timken Co.
U.S. Geological Survey
WMC International

Machines and Equipment

Air-Conditioning & Refrigeration Institute
Association of Home Appliance Manufacturers
Equipment Manufacturers Institute
General Electric
National Electrical Manufacturers Association

Electronic Goods

Adobe
Apple
BMG Entertainment
Compaq Computer
Eastmen Kodak
Electronic Industries Alliance
Harris Corp.
Honeywell Inc.
Intuit
Lucent Technologies
Maxwell
Microsoft
Motorola
Nokia
Nortel Networks
Novell
Oracle
Panasonic Co.
Philips Electronics
Rockwell International
Sony Corp.
Thomson Consumer Electronics
U.S. Chamber of Commerce
Xerox

Medical Goods

Baxter Healthcare
GE Medical Systems
Health Industry Manufacturers Association
Marconi Medical Systems
Medical Device Manufacturers Association
Medtronic

National Electrical Manufacturers Association
Tyco International
Welch Allyn, Inc.

Transportation

Boeing
Daimler Chrysler
Ford
General Electric
General Motors
Motor and Equipment Manufacturers Association
Pratt and Whitney

Sporting Goods

American Modern Metals Corp.
Diamond Sports
Easton Sports
Hillerich & Bradsby (Louisville Slugger)
Mizuno Sports
National Golf Foundation
Nike
Rawlings
Spalding Sporting Goods
Sporting Goods Manufacturers Association
Wilson Sporting Goods
Worth Sports

Telephone Survey Worksheet

Analyst conducting this interview:_____ Division:

Date:

Company/Association name:

Headquarters location:

Main products/services:

Contact name and title:

Contact telephone: _____ Fax: _____ E-mail:

Introduction

The U.S. International Trade Commission has been requested by the Committee on Ways and Means, U.S. House of Representatives, to conduct a fact-finding investigation to provide an overview and analysis of the economic impact of U.S. sanctions with respect to Cuba. The Commission's report is to be submitted by February 15, 2001. The purpose of this telephone survey is to obtain views of U.S. companies and organizations that are affected by or knowledgeable of U.S. sanctions with respect to Cuba.

This telephone survey should take no more than one-half hour of your time. If you desire the Commission to treat as confidential any commercial or financial information stated during this survey, please clearly state that you wish responses to be treated as "Confidential Business Information." If you would like to submit further information at a later date, such submissions should be received by no later than September 6, 2000, to be assured of consideration by the Commission. All submissions should be addressed to Jonathan R. Coleman, U.S. International Trade Commission, 500 E Street SW, Washington, D.C. 20436, or by fax to: 202-205-2384.

In accordance with the Paperwork Reduction Act of 1995, the Commission has obtained approval for this survey from the Office of Management and Budget (OMB). OMB approval was granted on June 7, 2000, and expired on November 30, 2000. Approval number : 3117-0195.

Questions 1-7

Directed toward firms/industries that exported to or had investments in Cuba prior to imposition of sanctions, and/or firms/industries that could potentially export to and invest in Cuba if trade relations were re-established

1. Did your company/industry export to or have investments in Cuba prior to the imposition of sanctions in 1960? If yes, ask (a) - (f), if no skip to question 2.

   (a) What were the nature and extent of your investments in Cuba?

   (b) How important was Cuban trade to overall sales by your company/industry?

   (c) Which countries do you think replaced you as the supplier(s) in the Cuban market?

   (d) How did the imposition of sanctions impact you in terms of loss of production, sales, employment, follow up sales to your company/industry?

   (e) Did you find alternative markets for your goods (and/or services)? Were these markets in the

   Caribbean region, South America, or elsewhere?

   (f) How quickly were you able to find these alternative markets?

2. If trade relations were re-established, would you try to export to or invest in Cuba? Please provide an explanation for your answer.

3. What factors (such as costs, price, quality, service) principally influence the competitiveness of your industry in world markets? Compare and contrast these factors with those influencing the competitiveness of the Cuban industry.

4. Are you aware of any Cuban nontariff trade and investment barriers (such as consumer preferences, sanitary and phytosanitary regulations, labeling requirements) that U.S. exports and investments would face if trade relations were re-established? If yes, which are most significant?

5. If trade relations were re-established, what would be your estimate (either quantitative or qualitative) of annual U.S. exports of your product /service to Cuba? Who would be your major competitors in the Cuban market? What would be your estimate (either quantitative or qualitative) of U.S. investments in Cuba with respect to your product /service?

6. If trade relations were re-established, what would be the impact (either quantitative or qualitative) of U.S. exports to and investments in Cuba on U.S. producers (or service establishments), consumers, prices, employment, and investment in your industry?

7. How long do you think it would take for the impacts you describe to take place?

Questions 8-14

Directed toward firms/industries that faced import competition from Cuba prior to imposition of sanctions, and/or firms/industries that could potentially face import competition from Cuba if trade relations were re-established, and/or firms that might potentially import from Cuba if trade relations were re-established

8. Did your company/industry import from Cuba prior to the imposition of sanctions in 1960? If yes ask (a) - (c), if no skip to question 9.

   (a) How important was Cuban trade for your company/industry?

   (b) After sanctions were imposed, which countries replaced Cuba as suppliers to the U.S. market?

   (c) What was the impact of the imposition of sanctions on Cuba in terms production, sales, and employment in your company/industry?

9. If trade relations were re-established, would Cuban imports be competitive in your industry with column 2 rates of duty? If not, would they be competitive with column 1 general rates of duty?

10. What factors (such as costs, price, quality, service) principally influence Cuban international competitiveness in your industry? Compare and contrast these factors with the U.S. industry.

11. In your opinion, what are the major U.S. nontariff trade barriers (such as consumer preferences, SPS regulations, labeling requirements) that U.S. imports from Cuba would face if trade relations were re-established?

12. If trade relations were re-established, what would be your estimate (either quantitative or qualitative) of annual U.S. imports from Cuba? Who would be Cuba's major competitors in the U.S. market?

13. If trade relations were re-established, what would be the impact (either quantitative or qualitative) of U.S. imports from Cuba on U.S. producers (or service establishments), consumers, prices, employment, and investment in your industry?

14. How long do you think it would take for the impacts you describe to take place?

Questions 15-19

Directed toward all firms/industries

15. Can you provide us with any information on the Cuban industry, such as on production, number of establishments, employment, and organization and ownership characteristics?

16. Can you provide us with any information on Cuban demand and market characteristics in your industry, such as market scope and size, per capita incomes, consumer preferences?

17. Are you aware of any industry, sector, or product specific studies with respect to Cuba?

18. Would your company/association wish to submit oral or written testimony to the USITC for this study (hearing on September 19-20, 2000). If yes, whom should the USITC contact?

19. Any other comments?

APPENDIX F
The USITC Gravity Model

Gravity Modeling

To assess the current impact of U.S. sanctions on the U.S. and the Cuban economies, the Commission analyzed the economic impact of what estimated U.S.-Cuban bilateral trade and investment flows might have been in the absence of U.S. sanctions. This report used a combination of methodologies to estimate what share of Cuba's trade with the world during a recent period might have been with the United States in the absence of sanctions. One component of those methodologies was a variant of a statistical tool known as a gravity model.

This appendix explains the Commission's gravity model, as well as some differences between the approach to gravity modeling used in this report and other models used to analyze trade in the academic literature. The equations used to estimate aggregate export and import market shares for this report also are presented.

Gravity models have been widely used in the empirical analysis of international trade for nearly 40 years.[1] It is now generally accepted that a regression equation that models bilateral trade flows as a function of the exporter's gross domestic product (GDP, a measure of the size of the economy), importer's GDP, and the economic distance between the two trading partners[2] will usually explain a high degree of variation in the data—trade flows generally are positively correlated with the size of the two partners' economies, and negatively correlated with economic distance.

Gravity models are so named because of an analogy in the Newtonian theory of gravitation—economic size corresponds to physical mass, and economic distance to physical distance. Increased acceptance of gravity models is due in part to demonstrations that these models are consistent with all of the primary theories of international trade.[3]

A wide variety of trade policies has been analyzed using gravity models. Trade policies, including membership in regional trade arrangements[4] and non-tariff

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[1] A useful review of gravity models, discussing representative applications and issues of specification, is found in Jeffrey A. Frankel, *Regional Trading Blocs in the World Economic System* (Washington, DC: Institute for International Economics, 1997), chapters 4 through 6.

[2] Economic distance refers to the shortest distance between the capitals or other major cities of the two countries.

[3] For example, the neoclassical or Heckscher-Ohlin theory (Alan M. Deardorff, "Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World?" *NBER Working Paper 5377* (December 1995), and the so-called "new international trade theory" based on increasing returns to scale and product differentiation (Elhanan Helpman and Paul Krugman, *Market Structure and Foreign Trade* (Cambridge, MA: MIT Press, 1985).) See also Simon Evenett and Wolfgang Keller, "On Theories Explaining the Success of the Gravity Equation," *NBER Working Paper 6529* (April 1998). Gravity models have addressed earlier concerns that they lacked an appropriate theoretical foundation. For example, see Alan V. Deardorff, "Testing Trade Theories," Chapter 10 in Ronald W. Jones and Peter B. Kenen, eds., *Handbook of International Economics Vol. 1* (Amsterdam: North-Holland, 1984), pp. 503-504.

[4] Norman Aitken, "The Effect of the EEC and EFTA on European Trade: A Temporal Cross-Section Analysis," *American Economic Review* (1973) vol. 63 no. 5, pp. 881-892, represents an early attempt to evaluate the effects of a regional trade agreement through trade modeling. For the evaluation of multiple trade agreements simultaneously using global data sets, see Jeffrey A. Frankel, *Regional Trading Blocs in the World Economic System* (Washington, DC: Institute for International Economics 1997), chapters 7 through 9, and Dale Boisso and Michael Ferrantino, "Economic Distance, Cultural Distance, and Openness in International Trade: Empirical Puzzles," *Journal of Economic Integration*, Decembern1997, vol. 12 No., pp. 456-484.

barriers[5], can be considered as additional variables which increase or decrease the economic distance between countries. Thus, any such policy whose presence, absence, or intensity can be measured over a set of countries potentially can be analyzed using a gravity model.

In a prior study analyzing U.S. economic sanctions,[6] the Commission identified gravity models, partial-equilibrium models, general equilibrium models, and industry surveys among the tools which potentially could be used to analyze the economic impact of U.S. unilateral economic sanctions. Because U.S. economic sanctions with respect to Cuba effectively have reduced recent historical trade between the United States and Cuba to zero, the use of partial-equilibrium and general equilibrium models is infeasible.[7] There exists in the literature at least one other attempt to use a gravity model to assess the effects of economic sanctions.[8] The transition from centrally-planned trading under Communism to more market-based trade relations in Eastern Europe and the Soviet Union has also been analyzed using gravity modeling.[9]

General Methodological Considerations

For merchandise trade, equations were estimated to explain the share of various countries' exports or imports that were exported to or imported from the United States, as a function of various attributes of those countries. These equations also were used to estimate the corresponding probable share of Cuba's exports to or imports from the United States in the absence of sanctions, based on Cuba's economic attributes. The equations were fitted both for aggregate trade and for trade in the selected commodities and sectors described in chapters 4 through 6.

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[5] For methods applying gravity models to technical barriers to trade, see Keith E. Maskus, John S. Wilson and Tsunehiro Otsuki (forthcoming), "An Empirical Framework for Analyzing Technical Regulations and Trade," in K.E. Maskus and J.E. Wilson, eds., *Quantifying Trade Effect of Technical Barriers: Can It Be Done?* (Ann Arbor: University of Michigan Press); for an application, see Tsunehiro Otsuki, John S. Wilson and Mirvat Sewadeh, "Saving Two in a Billion: A Case Study to Quantify the Trade Effect of European Food Safety Standards on African Exports," (Washington, D.C.: World Bank, 2000); for an application to government procurement, see Simon Evenett, "Liberalizing Government Procurement in APEC Nations," in USITC, *The Economic Implications of Liberalizing APEC Tariff and Non-Tariff Barriers to Trade*, publication No. 3101, April 1998, pp. 7-1 to 7-16.

[6] USITC, *Overview and Analysis of Current U.S. Economic Sanctions*, publication No. 3124, August 1998.

[7] Such models are capable of estimating changes in positively-valued trade flows, but not shifts from a zero-trade to a positive-trade situation.

[8] Gary Clyde Hufbauer, Kimberly Ann Elliott, Tess Cyrus, and Elizabeth Winston, "U.S. Economic Sanctions: Their Impact on Trade, Jobs, and Wages," *Institute for International Economics Working Paper*, 1997, at *http://www.iie.com/catalog/WP/1997/SANCTION/sanctnwp.htm*, retrieved Dec. 22, 2000.

[9] A partial list of these includes Oleg Hawrylyshyn and Lant Pritchett, "European Trade Patterns After the Transition," *Policy, Research, and External Affairs Working Paper Series*, 1991, No. 74; Zhen Kun Wang and L. Alan Winters, "The Trading Potential of Eastern Europe," Center for Economic Policy Research (CEPR) Discussion Paper No. 610, 1991; Carl Hamilton and L. Alan Winters, "Opening Up International Trade in Eastern Europe," *Economic Policy* vol. 14, April 1992, pp. 139-141; L. Alan Winters and Zhen Kun Wang, *Eastern Europe's International Trade* (Manchester: Manchester University Press, 1994); Richard Baldwin, *Towards an Integrated Europe* (London: CEPR 1994), and Paul Brenton, "External Liberalisation and Russian Trade" (Birmingham: CEPR, 1995).

The Commission's estimate of what Cuba's recent trade with the United States might have been in the absence of sanctions is not a pure econometric estimate, but one that reflects a synthesis of several sources of information, including the public hearing, written submissions in response to the *Federal Register* notice, staff travel, a telephone survey of U.S. industry participants, available published literature, and the gravity model estimates. The aggregate gravity model estimates for merchandise exports and imports are reported below, for illustrative purposes. The gravity model estimates for individual commodities and sectors are not reported because, as stated above, they were combined with estimates provided by other sources to produce the Commission's final estimates.

The Commission's estimates are best understood as an estimate of what average annual U.S.-Cuban trade flows during 1996-98 would have been in the absence of sanctions, with enough intervening time for market participants to have adapted to the absence of sanctions. In this sense they can be considered "long-run" estimates, benchmarked against a recent historical base period, and are thus analogous to estimates provided in other Commission studies which apply various modeling techniques to historical base data. As discussed in chapter 1, the estimates hold constant all factors other than the removal of U.S. economic sanctions; thus, no changes are assumed in the current Cuban Government and its economic policies.

The Commission's estimates of potential U.S.-Cuban trade in the absence of sanctions are based, in part, on the assumption that the value of Cuba's trade with the world would be the same with or without U.S. sanctions. Thus, any U.S.-Cuban trade would take the form of trade diversion from Cuba's trade with third countries—a valid assumption in the case of Cuba for the purposes of this report. The estimates also assume that Cuba is unlikely to be able to increase aggregate exports significantly in the near term. Despite its recent economic reforms and improved economic performance during 1999,[10] Cuba's centrally-planned economy is not well suited to respond to new market opportunities and remaining restrictions continue to impede foreign direct investment. It is probable that Cuba's foreign exchange shortage will continue to limit its ability to import.

Nonetheless, there are some reasons to believe that the absence of U.S. sanctions might cause Cuba's aggregate trade with the world to expand modestly. Cuba probably would earn some additional foreign exchange through such activities as tourism, payments for telephone connection services, and foreign direct investment in the absence of U.S. economic sanctions. A portion of such additional foreign exchange probably would be spent on imports. The Commission estimated the foreign exchange earnings Cuba might receive from such activities, and the extent to which Cuba might thereby afford to purchase additional foreign products. Other efficiencies potentially accruing to the Cuban economy as a result of the removal of U.S. sanctions include

[10] For an analysis of Cuban economic performance during 1999, see United Nations Economic Commission for Latin America and the Caribbean (ECLAC), *Cuba: Evolución Económica durante 1999*, LC/MEX/L.441, July 26, 2000.

lower shipping costs, increased competition among Cuba's suppliers, improved access to international credit, and availability of unique or higher-quality products from the United States. While realization of these efficiencies might also increase the total volume of potential U.S.-Cuban trade, such factors could not be quantified for use in the Commission's gravity model because of data limitations.

Estimates of aggregate potential U.S. trade with Cuba in the absence of sanctions, made with the gravity model alone, broadly corroborate the Commission's estimates incorporating expert opinion. Both sets of estimates indicate that the share of Cuban trade which would have taken place with the United States in the late 1990s, in the absence of sanctions, probably would be significantly lower than that prevailing in the late 1950s prior to sanctions. The aggregate model estimate is compared with the Commission's estimate at the end of this appendix.

Econometric Procedures

The Commission used the gravity model to develop two types of estimates for this study. First, estimates were made of potential foreign-exchange flows from the United States and Cuba, such as travel-related payments, foreign direct investment, and payments for telephone service connections. Second, estimates were made of potential merchandise trade flows between the United States and Cuba in the absence of sanctions. All estimates were made for a base year of 1997, unless otherwise specified.

For each potential foreign exchange flow, an equation was estimated over a sample of countries not including the United States, of the form:[11]

(1) $\ln(Y) = \beta_0 + \beta_1*\ln(GDP) + \beta_2*\ln(GDP/POP) + \beta_3*ENGLISH + \beta_4*COMM + \beta_5*\ln(DISTANCE) + \beta_6*FREE + \beta_7*NAFTA + \beta_8*\ln(FORBORN) + \varepsilon$

In equation (1), Y is a measure of foreign exchange flows, such as travel and tourism payments, foreign direct investment, or telecommunications service payments.[12] GDP

[11] The double-logarithmic specification is the most frequently encountered in work on the gravity model. It allows the coefficients of logged variables on the right-hand side to be interpreted as elasticities. The coefficients of dummy variables can be interpreted as shifting Y up or down by a constant of proportionality equal to the antilogarithm of the coefficient.

[12] Data on U.S. payments for travel payments, by country, are taken from U.S. Department of Commerce, *Survey of Current Business*, October 1999, table 3.3, p. 70. An alternate estimate was performed based on data on U.S. tourism arrivals, by destination, also taken from Commerce department sources. Data on total assets of U.S. non-bank affiliates abroad, by country, are from U.S. Department of Commerce, Bureau of Economic Analysis (BEA),*U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates, Preliminary 1997 Estimates*, table II.A.1. Data on international telephone traffic come from Federal Communications Commission (FCC), *1997 Section 43.61 International Traffic Report,* table A.1.

In the case of foreign direct investment, an estimate was made of equation (1) using total assets of U.S. non-bank affiliates abroad as the dependent variable. This estimate was converted to an estimate of direct investment capital inflows from the United States based on the historical average ratio of direct investment capital inflows for U.S. affiliates in Latin America during 1994-98, derived from BEA data

and GDP/POP indicate 1997 aggregate GDP and per capita GDP, respectively, as reported by the World Bank. ENGLISH is a dummy variable equaling 1 for countries with an English-speaking history (including colonial involvement), and 0 otherwise.[13]

COMM is a dummy variable equaling 1 for current and former Communist countries, and 0 otherwise. DISTANCE is the great-circle-route distance from the largest city in each country to New York City.[14] FREE is the country's economic freedom score for 1997.[15] This is an index which ranges from 1 for "most free" to 5 for "least free." NAFTA is a dummy variable equaling 1 for Canada and Mexico, and 0 for all other countries; it captures simultaneously the effect of a shared border with the United States and the effects of the North American Free Trade Agreement (NAFTA). FORBORN is the count of foreign-born persons in the United States from each country, according to the 1990 U.S. Census.

The general strategy for estimating the values for Y in the absence of sanctions is to run the regression, obtain estimates of the β's, and generate an estimate of ln(Y) using the values of the right-hand-side variables which describe Cuba.[16] This estimate is adjusted for logarithmic transformation bias.[17]

Estimates for merchandise trade flows were calculated for exports and imports on both aggregate and one-digit SITC level data, as well as for the individual commodities analyzed in this report. All trade data are from 1997, and taken from the *World Trade*

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[12]—*Continued*
(5.1 percent). In the case of telecommunications service payments, equation (1) was estimated twice, once using total minutes of traffic billed in the United States to various countries, and once using total minutes of traffic billed in foreign countries, and originating or terminating in the United States. Estimates of changes in payments to Cuban carriers (receipts from Cuban carriers) were generated by comparing the estimated to the actual number of minutes billed in the United States (Cuba), and multiplying the difference by the settlement rate of 60 cents per minute as reported by the FCC. The settlement rate was used as an additional regressor in the equations for telephone service payments, but proved to be insignificant or of the wrong sign (i.e. higher settlement rates were not associated with fewer minutes of traffic billed).

[13] More precisely, ENGLISH is defined as the members of the British Commonwealth and their possessions, plus Liberia, Panama and the Philippines because of their historical involvement with the United States.

[14] This is taken from G. Fitzpatrick and M. Modlin, *Direct Line Distances: International Edition* (Metuchen, NJ: Scarecrow Press, 1986).

[15] See Kim R. Holmes, Bryan T. Johnson, and Melanie Kirkpatrick, *Index of Economic Freedom* (Washington, D.C. and New York: The Heritage Foundation and the Wall Street Journal, 1997).

[16] The values for Cuba are as follows, taken from the same sources as for the regression except as indicated:

GDP in 1997 = $19.767 billion (Economist Intelligence Unit)
GDP/POP = $1,789 (calculated based on Economist Intelligence Unit)
ENGLISH = 0
COMM = 1
DISTANCE = 919 km. This is the trade-weighted average of the distance from Havana to the top 10 ports receiving imports under the Caribbean Basin Economic Recovery Act (CBERA) program in 1999. For geographic reasons, the ports used by U.S.-Cuban trade probably would be similar to those currently used by CBERA trade.
FREE = 4.85 (1 is most-free, 5 is least-free).
NAFTA = 0
FORBORN = 736,971 (third after Mexico and Canada)

[17] See William A. Donnelly, "Correcting for Logarithmic Transformation Bias in Predictions," *USITC Office of Economics Research Notes*, December 1996, No. 96-11-C,.

Analyzer database produced by Statistics Canada.[18] In the case of merchandise trade, the strategy was not to estimate levels of trade as in equation (1), but shares of Cuban exports (imports) which might be shipped to (sourced from) the United States in the absence of sanctions. That is, the strategy was to obtain estimates of θ[19] in the equation:

(2) U.S. exports to (imports from) Cuba = θ*Cuba's imports from (exports to) the world.

This strategy was adopted because estimates of ln(Y) generated from equation (1) could potentially exceed Cuba's entire export supply or import demand, while estimates based on equation (2) are constrained to equal no more than a share of Cuba's historical trade. The historical values for the right-hand side of equation (2) were obtained primarily from Cuban national data sources,[20] and averaged over 1996-98 to smooth volatility in the data.[21] Estimates of θ are obtained by measuring the values of θ calculated based on actual U.S. trade with third-country trading partners (i.e. the share of country i's imports which consist of U.S. exports, or the share of country i's exports which consist of U.S. imports). Equations of the following form are then fitted to these values:

(3) $$\theta = \frac{e^{X'\beta}}{1 + e^{X'\beta}}$$

in which $X'\beta$ is analogous to the left-hand side of (1), with the X's entered in levels and omitting the term for FORBORN.[22] The logistic functional form in (3) takes into account

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[18] This database is based on the United Nations' COMTRADE database, adjusted using an algorithm forcing exports from country i to country j to equal imports of country j from country i. This property is essential for the analysis described here. It does not necessarily hold in the COMTRADE data since the same trade flow is reported twice, by the exporter and by the importer.

[19] The present econometric approach should not be confused with an alternative, also found in the literature, which seeks to explain θ, defined either as the share of trade from country i in country j's total trade or the share of imports in country j's consumption, as a function of variables such as relative prices or exchange rates, based on principles deriving from consumption theory. See J.David Richardson, "Constant-Market-Shares Analysis of Export Growth," *Journal of International Economics*, 1971, vol. 1, No. 2, pp. 227-239; Eric V. Clifton, "Real Exchange Rates, Import Penetration and Protectionism in Industrial Countries," *IMF Staff Papers*, 1986, vol. 33 no. 3, pp. 513-36; Christine Chmura, "The Effect of Exchange Rate Variation on U.S. Textile and Apparel Imports," Federal Reserve Bank of Richmond *Economic Review*, 1987, vol. 73, No. 3, pp. 17-23; and Cathy L. Jabara, "Effects of Agricultural Protection on Food Manufacturing: The U.S. Sugar Program," *European Review of Agricultural Economics*, 1989, vol. 16, pp. 375-389.

[20] *Anuario Estadístico de Cuba 1998* (Havana: Oficina Nacional de Estadísticas, 1999), pp. 127-146. Alternate sources of Cuban trade data at the commodity level are generally based on reporting to COMTRADE by partner countries and systematically give lower values than those in official statistics, possibly due to the fact that Cuba is a small trading partner for many countries. Thus, it was decided to use Cuban national data. These data are reported in convertible Cuban pesos, which have the official Cuban exchange rate of 1 peso = 1 dollar.

[21] In a few cases, base data for Cuba's trade in some products were obtained from independent sources when these appeared to be more credible.

[22] While the estimates of the β's obtained from this equation are consistent, in principle more efficient estimates can be obtained by estimating (3) jointly by seemingly-unrelated regression (SUR) with equations for which the dependent variable θ represents the market shares for major participants in the market other than the United States, such that $\Sigma\ \theta$ represents most of the activity in the market.

the fact that the values of θ are bounded on [0,1]. Different estimates of (3) were generated for exports, for imports, and for each disaggregated commodity. Estimates for the potential trade shares of the United States in Cuban trade were generated by applying the estimated parameters of (3) to the values of X describing Cuba, as described previously, to provide estimates of θ. These, in turn, were used to generate estimates of potential U.S.-Cuban trade using (2).

Estimates were made of an alternate specification in which the sample of θ's consisted of observations on the shares of Cuba's actual trade with different countries, rather than on observations of U.S. trade. Using this method, estimates of potential U.S.-Cuban trade would have used values for the X's describing the United States, rather than Cuba. The problem with this procedure is that the United States is very different from any of Cuba's trading partners because of the large U.S. economic size, high income, etc.; thus, the procedure tended to produce estimates of θ unrealistically close to 0 or 1. Since there are more countries with attributes similar to Cuba's in a sample of U.S. trading partners than countries with attributes similar to the United States in a sample of Cuba's trading partners, the procedure actually followed was deemed to produce more reasonable results.

The estimates obtained at both the aggregate and commodity-specific levels confirmed the importance of certain variables more strongly than others. Both in aggregate, and for most commodities, the share of trade consisting of U.S. exports or imports is higher for countries close by, for poorer countries, and for the NAFTA partners, and lower for historically communist countries. The effect for poorer countries may be due to the difficulty such countries have in establishing trade networks. The distance and income effects tend to lead to higher predictions of U.S.-Cuba trade in the absence of sanctions, while the effects of NAFTA and historical communism tend to lead to lower predictions. The effects of an English-speaking heritage and of economic freedom showed greater variation from commodity to commodity, though economically unfree countries tended to have smaller U.S. trade shares in the aggregate.

Similar effects were observed in the equations for foreign exchange flows; in addition, such flows tended to be higher to or from countries with large economies (high GDP) and a high foreign-born population in the United States, and English-speaking countries. On the whole, for the foreign exchange flows the negative effects of being a historically communist country were stronger, and the positive effect of NAFTA weaker, than for merchandise trade flows. The effects of GDP and English-speaking tended to decrease, and the effect of foreign-born population to increase, estimates of potential flows of foreign exchange from the United States to Cuba.

Estimates for Aggregate Merchandise Trade

The estimates of the market-share gravity model for U.S. export market shares and U.S. import market shares are presented in table F-1 below.

Table F-1
Aggregate gravity model regressions

Dependent variables	Intercept	GDP	Per capita income	English-speaking	Historically communist	Distance from the United States	Economic freedom[1]	NAFTA	N	R^2
Market share of U.S. exports	1.60	4.94e-13	-7.14e-05	-16.5	-1.68	-3.22e-04	-0.229	1.57	93	0.82
	(1930.69)***	(1.62)*	(-3.78)***	(-0.86)	(-1.58)*	(-7.85)***	(-2.96)***	(2.72)***		
Market share of U.S. imports	1.02	1.42e-12	-1.28e-04	-0.667	-1.08	-4.20e04	0.215	1.05	109	0.51
	(22246.51)***	(2.10)**	(-1.94)**	(-1.25)	(-0.92)	(-4.24)***	(1.24)	(0.75)		

[1] A negative sign means that trade is greater for countries with more economic freedom.

Notes:

T-statistics in parentheses.

* is significant to 0.10 (one-tailed test).

** is significant to 0.05 (one-tailed test).

*** is significant to 0.01 (one-tailed test).

Inserting the values describing Cuba from the above footnote into the aggregate equation for U.S. export market shares gives an estimated market share of U.S. exports to Cuba amounting to 16.8 percent of Cuba's total imports. This compares to the Commission's synthesis estimate of 18 to 27 percent of Cuba's total imports. The corresponding estimated market share of U.S. imports from Cuba from a gravity equation alone is 22.7 percent of Cuba's total exports.[23] The Commission's estimate amounts to 9 to 17 percent of Cuba's non-sugar exports, or 5 to 9 percent of Cuba's total exports.

Both the Commission's estimate and the estimate made solely with an aggregated gravity model agree in finding that the likely U.S. share of Cuban trade in the absence of sanctions would be significantly lower than the corresponding share was in the late 1950s. The incorporation of expert opinion on selected commodities and sectors into the estimate tends to raise the Commission's estimate of U.S. exports to Cuba, and to lower the estimate of Cuban exports to the United States, relative to an estimate made solely by econometric means.

[23] The ranges used in the Commission's estimate of residual trade amount to plus or minus 5 percent of the estimated shares from the aggregate gravity model. This provides a range comparable with that of the commodity-by-commodity estimates.

APPENDIX G
Sectoral Statistics

Table G-1a
Air transportation services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Industry revenues (*billion dollars*)	68	71	79	88	([1])
Passengers transported on U.S. airlines (*millions*)	548	581	599	613	[2]635
International passenger traffic carried by U.S. airlines (b*illions of passenger kilometers*)	240	256	268	273	[2]288
International freight traffic carried by U.S. airlines (*billions of ton kilometers*)	11	12	15	16	[2]17
Domestic passenger traffic carried by U.S. airlines (*billions of passenger kilometers*)	618	664	697	712	[2]757
Domestic freight traffic carried by U.S. airlines (*billions of ton kilometers*)	9	9	10	10	[2]10
Ratio of total traffic (passengers, freight, and mail) carried by U.S. airlines to total world traffic (*percent*)	34	34	34	34	[2]34
Employment (*thousands*)	995	1,043	1,063	1,118	([1])
Number of airlines	[3]10	[3]10	[3]10	[3]10	[3]10

[1] Not available.

[2] 1999 figures are estimated.

[3] Denotes number of major U.S. passenger carriers.

Source: Information sources for this table are given at the end of this appendix.

Table G-1b
Air transportation services: U.S. sector characteristics

U.S. position in world market:

- 34 percent of world total traffic; 38 percent of world passenger traffic; 25 percent of world freight traffic (based on average 1995-99).

Factors affecting international competitiveness:

- U.S. industry highly competitive internationally, as a result of extensive route networks, quality of service, safety records, and frequent flyer programs.

Government programs & regulation:

- U.S. law restricts foreign investment in U.S. airlines to 25 percent voting stock and 49 percent nonvoting stock.
- U.S. cabotage restrictions prohibit foreign-owned airlines from serving the domestic market. (Cabotage is the transport of passengers between two points in the same country).

Trade measures:

- U.S. sanctions permit U.S. airlines to operate only charter flights to Cuba licensed by OFAC.
- The United States maintains a bilateral air service agreement with Cuba (established in 1953).
- U.S. charter flight operators to Cuba currently provide service under "extra-bilateral" authority (i.e., authority granted under mutual agreement of the U.S. and Cuban governments that lies outside the scope of the U.S.-Cuba bilateral air service agreement).

Special industry characteristics:

- Trend toward global air carrier alliances, allowing airlines to increase route networks and passenger flow.
- Nascent movement toward mergers and acquisitions among U.S. airlines.

Source: Information sources for this table are given at the end of this appendix.

Table G-1c
Air transportation services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999[1]
Passengers transported on Cuban airlines (*millions*)	1.0	1.2	1.5	1.5	1.7
International passenger traffic carried by Cuban airlines (*millions of passenger kilometers*)	1,702	2,340	3,228	4,470	3,643
International freight traffic carried by Cuban airlines (*millions of ton kilometers*)	32	43	55	72	62
Domestic passenger traffic carried by Cuban airlines (*millions of passenger kilometers*)	303	309	315	321	248
Domestic freight traffic carried by Cuban airlines(*millions of ton kilometers*)	1	1	1	1	1
Number of airlines	[2]1	[2]1	[2]1	[2]1	[2]1

[1] 1999 figures are estimated.

[2] Denotes number of major Cuban passenger carriers.

Source: Information sources for this table are given at the end of this appendix.

Table G-1d
Air transportation services: Cuban sector characteristics

Cuban position in world market:

- Less than 1 percent of world passenger and freight traffic (based on average 1995-99).

Government programs & regulation:

- All Cuban airlines are state-owned.
- Intercuba is a new joint venture airline formed by a consortium of Central American airlines and the Cuban Government.

Special industry characteristics:

- Many of the aircraft in Cuba's fleet are aging and need repair or replacement.
- A shortage of foreign exchange in Cuba has reportedly prevented Cuban airlines from purchasing fuel and spare parts for their aircraft.
- The Cuban Government has begun to renovate some of the country's seven airports that handle international flights, including Jose Martí International Airport in Havana.

Source: Information sources for this table are given at the end of this appendix.

Table G-2a
Maritime transportation services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Freight and passengers transported by U.S.-flag vessels[1] (*thousands of gross weight tons*)	10,600	[2]2,742	9,656	9,544	9,570
U.S. imports[3] (*million dollars*)	11,514	11,258	11,904	13,654	([4])
Japan (*million dollars*)	1,850	1,659	1,632	2,072	([4])
Germany (*million dollars*)	1,272	1,365	1,253	1,002	([4])
Korea (*million dollars*)	1,055	958	1,059	905	([4])
U.S. exports[3] (*million dollars*)	13,576	12,502	12,234	10,891	([4])
Japan (*million dollars*)	1,960	1,697	1,583	1,401	([4])
Germany (*million dollars*)	1,061	1,330	1,177	714	([4])
Korea (*million dollars*)	941	869	1,040	710	([4])
Industry revenues (*billion dollars*)	11.6	12.2	13.3	13.9	([4])
Foreign direct investment in the U.S. maritime transport industry (*million dollars*)	306	311	234	102	([4])
U.S. direct investment in maritime transport industries of foreign countries (*million dollars*)	1,445	1,604	2,165	2,559	([4])
Employment (*thousands*)	167	166	171	173	([4])
Number of U.S.-flag vessels[1]	319	[2]289	285	281	277

[1] Includes data for self-propelled oceangoing vessels of 1,000 tons and above that are privately owned.

[2] Data reported is as of July 1, 1997.

[3] Includes passenger transportation, freight transportation, and port services.

[4] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-2b
Maritime transportation services: U.S. sector characteristics

U.S. position in world market:

- In 1999, the U.S.-flagged merchant fleet ranked 11th in the world.[1]
- During 1993-97, U.S. waterborne exports and imports accounted for 21 percent of global waterborne trade.

Factors affecting international competitiveness:

- U.S. industry highly competitive internationally based on costs (especially labor costs).

Government programs & regulation:

- Under U.S. law (the Jones Act), U.S. citizens must own at least 75 percent of vessels transporting oceanborne cargo between U.S. ports. Jones Act vessels must be built in the U.S. and operated by U.S. citizens.

Special industry characteristics:

- Trend toward global vessel sharing agreements (alliances) and registering U.S. vessels in other countries.

[1] Ranking is based on oceangoing ships of 1,000 tons and above that are privately-owned, and is determined by the number of deadweight tons (dwt) carried by these vessels.

Source: Information sources for this table are given at the end of this appendix.

Table G-2c
Maritime transportation services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Freight transported by Cuban-flag vessels[1] (*thousands of gross weight tons)*	243	113	[2]118	111	66
Cuban imports *(1,000 metric tons*)	3,110	3,273	4,061	[3]4,918	[3]5,241
Cuban exports *(1,000 metric tons*)	1,513	1,437	1,658	[3]1,668	[3]1,699
Number of Cuban-flag vessels[1]	45	[2]21	23	22	17

[1] Includes data for self-propelled oceangoing vessels of 1,000 tons and above.

[2] Data reported as of July 1, 1997.

[3] Estimated data.

Source: Information sources for this table are given at the end of this appendix.

Table G-2d
Maritime transportation services: Cuban sector characteristics

Cuban position in world market:

- In 1999, the Cuban-flagged fleet ranked 95th in the world.[1]

Government programs & regulation:

- The Cuban fleet is managed by two entities: Navegaciòn Mambisa, which handles international shipping, and Navegaciòn Caribe, which oversees domestic and Caribbean shipping.
- In the mid 1990s, the Government began a program to upgrade port facilities, fuel terminals, agricultural products handling facilities, and container ports.
- The Government also increased spending on the merchant marine and invested in new ships.

Trade measures:

- Under the WTO General Agreement on Trade and Services (GATS), Cuba prohibits foreign companies from operating cargo-carrying vessels under the Cuban flag.

Special industry characteristics:

- Cuba has 10 major sea ports which can accommodate large vessels used for international trade.
- Cuba's merchant marine transports cargo between Cuba and northern Europe, the Baltic, the Mediterranean, Japan, Latin America, and other parts of the Caribbean.

[1] Ranking is based on oceangoing ships of 1,000 tons and above that are privately owned, and is determined by the number of deadweight tons (dwt) carried by these vessels.

Source: Information sources for this table are given at the end of this appendix.

Table G-3a
Banking services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Total assets (*million dollars*)	5,338	5,607	6,041	6,531	6,884
Total deposits (*million dollars*)	3,770	3,925	4,126	4,386	4,538
Foreign lending by U.S. banking industry (*billion dollars*)	254	314	334	367	([1])
Gross product of U.S. banking industry (*billion dollars*)	227	241	271	290	([1])
U.S. cross-border imports (*million dollars*)	2,472	2,907	3,347	3,561	3,574
U.S. cross-border exports (*million dollars*)	7,029	8,229	10,243	11,273	13,925
U.S. affiliate payments (*million dollars*)	7,096	10,736	13,907	([1])	([1])
Japan (*million dollars*)	1,661	3,744	4,572	([1])	([1])
United Kingdom (*million dollars*)	1,887	2,224	2,640	([1])	([1])
Switzerland (*million dollars*)	1,199	1,793	2,202	([1])	([1])
U.S. affiliate sales	([2])	([2])	([2])	([1])	([1])
Japan (*million dollars*)	2,153	2,641	2,438	([1])	([1])
Canada (*million dollars*)	2,297	2,768	2,810	([1])	([1])
United Kingdom (*million dollars*)	7,073	([2])	([2])	([1])	([1])
Employment (*thousands*)	1,935	1,920	1,924	1,929	([1])
Number of depository institutions (commercial banks and savings institutions)	11,970	11,452	10,922	10,463	10,221

[1] Not available.

[2] Data suppressed by the U.S. Department of Commerce to avoid disclosure of individual company data.

Source: Information sources for this table are given at the end of this appendix.

Table G-3b
Banking services: U.S. sector characteristics

U.S. position in world market:

- In 1998, U.S. banks comprised 20 percent of the world's 100 largest banks, including the two largest, Bank of America and Citigroup.

Factors affecting international competitiveness:

- U.S. industry is highly competitive internationally based on price, quality, and service.

Regulation:

- Banks in the United States may choose to be regulated by the individual states or by federal-level regulators. At the federal level, there are separate regulatory agencies for commercial banks, savings and loan institutions, thrifts, and credit unions.

U.S. trade barriers:

- Federal and state laws do not permit a credit union, savings bank, home loan or thrift business in the United States to be provided through branches of corporations organized under a foreign country's law.
- Foreign banks are required to register under the Investment Advisers Act of 1940 to engage in securities advisory and investment management services in the United States. The registration requirement covers record maintenance, inspections, submission of reports and fees.
- All directors of a national bank must be citizens unless a national bank is an affiliate or subsidiary of a foreign bank, in which case only a majority of the board need be citizens.

Source: Information sources for this table are given at the end of this appendix.

Table G-3c
Banking services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban imports (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban exports (*million dollars*)	([1])	([1])	([1])	([1])	([1])
GDP of Cuba's finance sector (finance, real estate, and business services) (*million pesos*)	447	488	498	547	([1])
GDP of finance sector as percent of total GDP (*percent*)	2.1	2.1	2.2	2.3	([1])
Total assets (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Total deposits (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of depository institutions	15	15	20	20	25
Cuban	3	3	8	8	8
Foreign banks' representative offices	12	12	12	12	17

[1] Not available, but Cuban trade in banking services is negligible.

Source: Information sources for this table are given at the end of this appendix.

Table G-3d
Banking services: Cuban sector characteristics

Cuban position in world market:

- Cuba is not an active participant in global banking markets.

Government programs & regulation:

- The banking industry is owned and operated by the Cuban Government.
- The state-owned banks provide all available financial services to Cuban businesses and individuals.
- There are approximately 17 representative offices of foreign banks, which provide services to foreign corporations and individuals in Cuba.

Source: Information sources for this table are given at the end of this appendix.

Table G-4a
Insurance services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. premiums (property/casualty) (*billion dollars*)	260	269	276	281	287
U.S. premiums (life) (*billion dollars*)	261	285	313	355	493
Total U.S. direct insurance premiums[1]	520	554	589	637	780
Gross product of U.S. insurance industry	167	172	193	197	([2])
Cross-border premium payments (imports) (*million dollars*)	15,284	14,522	15,233	18,581	21,242
Cross-border premium receipts (exports) *(million dollars)*	5,491	5,929	6,133	6,985	8,259
U.S. affiliate payments	51,562	56,820	58,958	([2])	([2])
United Kingdom (*million dollars*)	12,413	13,957	15,109	([2])	([2])
Canada (*million dollars*)	11,589	11,894	9,761	([2])	([2])
Switzerland (*million dollars*)	6,745	8,266	9,749	([2])	([2])
U.S. affiliate sales	38,630	41,000	47,240	([2])	([2])
Japan (*million dollars*)	9,420	8,698	8,984	([2])	([2])
Latin America (mostly Bermuda) (*million dollars*)	3,552	4,075	8,573	([2])	([2])
United Kingdom (*million dollars*)	7,742	8,050	8,478	([2])	([2])
Employment (*thousands*)	2,148	2,156	2,187	2,242	([2])
Number of insurance companies (total)	([2])	([2])	([2])	[3] 8,123	([2])

[1] Does not include reinsurance.

[2] Not available.

[3] Total consists of 1,826 in life/health, 3,319 in property/casualty, and 2,978 in other lines of insurance business.

Note.—U.S. Department of Commerce data include services provided by insurance carriers and insurance agents, brokers, and other service providers. National Association of Insurance Commissioners data includes services provided by insurance carriers.

Source: Information sources for this table are given at the end of this appendix.

Table G-4b
Insurance services: U.S. sector characteristics

U.S. position in world market:

- In 1998, U.S. insurance companies accounted for 34 percent of wold insurance premiums.
- The U.S. accounts for 43 percent of world non-life premiums and 28 percent of life insurance premiums.

Factors affecting international competitiveness:

- U.S. international competitiveness based on costs, price, and service.

Regulation:

- Each state has its own insurance commissioner, insurance laws, and licensing and product approval process.

U.S. trade barriers:

- For insurance of maritime vessels built under federally guaranteed mortgage funds and insured by a foreign company, the insured must show that risk was offered in the U.S. market before contracting a foreign insurer.
- Foreign insurance companies that specialize in the surplus lines market (large industrial, transport, or hard-to-place risks) must be "white-listed" by the National Association of Insurance Commissioners (NAIC) in order to operate on a cross-border basis.

Source: Information sources for this table are given at the end of this appendix.

Table G-4c
Insurance services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban direct insurance premiums[1] (*million dollars*)	([2])	([2])	([2])	165	([2])
Cuban insurance premiums as percent of GDP	([2])	([2])	([2])	0.81	([2])
Cuban imports (*million dollars*)	([2])	([2])	([2])	([2])	([2])
Cuban exports (*million dollars*)	([2])	([2])	([2])	([2])	([2])
GDP of Cuba's finance sector (finance, real estate, and business services) (*million pesos*)	447	488	498	547	([2])
GDP of finance sector as percent of total Cuban GDP (*percent*)	2.1	2.1	2.2	2.3	([2])
Number of insurance companies[3]	2	3	3	3	3

[1] Life and property/casualty insurance. Does not include reinsurance.

[2] Not available, but Cuban insurance trade is negligible.

[3] These are all state-owned. A 1997 law permits private insurance firms, but there is no information available as to how many firms have entered the market - see Table G-4d below).

Source: Information sources for this table are given at the end of this appendix.

Table G-4d
Insurance services: Cuban sector characteristics

Cuban position in world market:

- Cuba is not an active participant in world insurance markets.

Government programs & regulation:

- The three primary Cuban insurance companies are government-owned.
- In 1997, Cuba passed a law permitting the establishment of private insurance companies, but there is very little information available as to how many have become established.
- At least one British company has formed a joint venture with one of the Cuban state-owned insurance firms to provide insurance for foreigners and foreign companies in Cuba.

Trade measures:

- Most forms of insurance are only available from the government-owned insurance companies.
- Foreign insurers are legally permitted to provide insurance to foreign companies and foreign individuals in Cuba, although there is no data on how many are engaging in this business.

Source: Information sources for this table are given at the end of this appendix.

Table G-5a
Construction services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Gross product of U.S. construction industry (*billion dollars*)	290	316	343	373	([1])
U.S. cross-border imports (*million dollars*)[2]	345	465	461	699	([1])
United Kingdom (*million dollars*)[2]	25	24	129	45	([1])
Netherlands (*million dollars*)[2]	([1])	19	7	58	([1])
Japan (*million dollars*)[2]	5	3	57	42	([1])
Sales to U.S. persons by U.S. affiliates of foreign parent firms (*million dollars*)	889	961	[3]2,283	([1])	([1])
U.S. cross-border exports (*million dollars*)[2]	2,550	3,553	3,498	4,053	([1])
Indonesia (*million dollars*)[2]	134	248	602	627	([1])
United Kingdom (*million dollars*)[2]	94	58	286	355	([1])
China (*million dollars*)[2]	262	165	170	205	([1])
Sales to foreign persons by foreign affiliates of U.S. parent firms (*million dollars*)	271	716	269	([1])	([1])
Full-time employment (*thousands*)	5,180	5,444	5,752	6,074	([1])

[1] Not available.

[2] Receipts for engineering, architectural, construction, and mining services.

[3] Method of calculation changed from SIC to NAICS, thus comparison with earlier years is not valid.

Source: Information sources for this table are given at the end of this appendix.

Table G-5b
Construction services: U.S. sector characteristics

U.S. position in world market:

- The United States is the largest producer and consumer of construction services.
- U.S. exports of construction services are sold primarily cross-border, while U.S. imports are primarily sales by U.S. affiliates of foreign firms.

Factors affecting international competitiveness:

- U.S. construction industry is highly competitive on world markets, owing to company size, technical ability, project management ability, and ability to bring or package project financing.

Source: Information sources for this table are given at the end of this appendix.

Table G-5c
Construction services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Gross product in Cuban construction industry (*millon pesos*)	891	1,176	1,217	1,282	([1])
Cuban cross-border imports (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban cross-border exports (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	221	222	238	225	([1])

[1] Not available.

Note.—Using the 1998 EIU exchange rate of 22.3 pesos per dollar, the contribution of construction to GDP in 1998 was approximately $57.5 million.

Source: Information sources for this table are given at the end of this appendix.

Table G-5d
Construction services: Cuban sector characteristics

Cuban position in world market:
- Cuba has a very small industry; 1998 value was less than $100 million.
- Cuba has no reported exports; Cuban imports large scale and sophisticated construction services.

Factors affecting international competitiveness:
- Cuba is not competitive internationally, owing to shortages of construction materials and equipment.

Government programs & regulation:
- The Ministry of Construction regulates construction projects in Cuba.
- Cuban government targets sectors for expenditures of construction funds. In recent years, the travel and tourism services sector and related infrastructure facilities have received priority.

Special industry characteristics:
- Joint ventures have been the mechanism for foreign firms participating in the Cuban market.

Source: Information sources for this table are given at the end of this appendix.

Table G-6a
Telecommunications services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. revenue (*billion dollars*)	190	212	231	246	[1]270
U.S. imports (*million dollars*)	7,305	8,290	8,351	8,125	([2])
Mexico (*million dollars*)	1,067	1,162	1,104	1,082	([2])
Canada (*million dollars*)	381	356	333	333	([2])
China (*million dollars*)	276	350	325	325	([2])
U.S. exports (*million dollars*)	3,228	3,301	3,949	3,689	([2])
Mexico (*million dollars*)	306	350	452	441	([2])
Canada (*million dollars*)	299	294	353	293	([2])
United Kingdom (*million dollars*)	251	287	300	262	([2])
Main telephone lines *(millions)*	158	165	174	180	([2])
Main telephone lines per 100 inhabitants	61	64	([2])	66	([2])
Wireless subscribers (*millions*)	31	41	55	69	86
Telecommunication investment (*million dollars*)	23,570	23,570	([2])	24,218	([2])
Employment (*thousands*)	1,197	1,229	1,293	1,341	([2])

[1] Estimated.

[2] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-6b
Telecommunications services: U.S. sector characteristics

U.S. position in world market:

- U.S. telecommunication carriers are world leaders in terms of revenue (accounting for 34 percent of world revenue in 1998).
- U.S. companies are world leaders in the development and marketing of telecommunication services.

Factors affecting international competitiveness:

- U.S. telecommunication providers have considerable experience investing and operating in foreign markets.
- U.S. telecommunications providers remain competitive in foreign markets by using new technology to help lower costs and improve service quality
- Although the united States registers a net deficit in telecommunication service trade, this is mostly result of insufficient foreign market conditions and artificially high accounting rates, rather than the competitiveness of U.S. firms.

Government programs & regulation:

- In the last 2 years, accounting rate reform in the United States has resulted in an FCC-mandated policy that will result in a reduction in the rates U.S. carriers pay foreign carriers for completing an international call. As a result of this requirement, U.S. exports and imports will likely decline, but call volume should increase.

Trade measures:

- According to their WTO GATS Schedule of Commitments, foreign governments, non-U.S. citizens, corporations not organized under the laws of the United States, and U.S. corporations with 20 percent or more foreign ownership, may not directly own a common carrier radio license.
- In its GATS commitment the United States provided COMSAT Corporation with exclusive rights to the International Telecommunications Satellite Organization (Intelsat) and International Mobile Satellite Organization (Inmarsat).

Source: Information sources for this table are given at the end of this appendix.

Table G-6c
Telecommunications services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban revenue (*million dollars*)	405	434	([1])	525	([1])
Cuban settlement payments to US (*million dollars*)	([1])	([1])	([1])	1	([1])
Cuban settlement receipts from US (*million dollars*)	51	64	73	86	([1])
Main telephone lines (*thousands*)	353	356	([1])	388	([1])
Main telephone lines per 100 inhabitants	3.2	3.2	([1])	3.5	([1])
Wireless subscribers (*thousands*)	([1])	([1])	([1])	3,150	3,550
Telecommunication investment (*million dollars*)	38	33	([1])	74	([1])
Employment (*thousands*)	15	16	([1])	17	([1])

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-6d
Telecommunications services: Cuban sector characteristics

Cuban position in world market:

- The Cuban telecommunication industry generated revenue of $525 million in 1998, accounting for a relatively small portion of world telecommunication revenue.

Government programs & regulation:

- In 1994, the Cuban Government partially privatized monopoly telephone provider Etesca.
- Italy's STET International now owns 29 percent of Etesca, and the Cuban Government, through the Ministry of Communications, owns the remaining 71 percent of the company.
- Etesca maintains a 12-year exclusive concession to provide telecommunication services in Cuba.
- In 1992, the Cuban government permitted a joint venture between Telecomunicaciones de Mexico (TIMSA) and Cubacel, a new Cuban company vested to build and operate a cellular network in Cuba.

Source: Information sources for this table are given at the end of this appendix.

Table G-7a
Travel and tourism services: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Groos product of U.S. travel and tourism industry (*billion dollars*)[1]	318	330	344	362	(2)
U.S. gross domestic product: Lodging (*billion dollars*)	62	66	71	76	(2)
Full-time equivalent employment: Lodging (*thousands*)	1,522	1,561	1,603	1,649	(2)
U.S. room supply: Lodging (*million*)	1,221	1,250	1,295	1,349	1,405
U.S. room demand: Lodging (*million*)	795	812	835	861	889
Revenue per available room (*dollars*)	43	46	48	50	51
U.S. residents' visits abroad *(million)*	51	52	53	56	(2)
Visits to the United States from abroad (*million*)	43	46	48	46	48
U.S. cross-border imports (*billion dollars*)	45	48	52	56	59
Canada (*billion dollars*)	4	5	5	6	6
Mexico (*billion dollars*)	5	6	6	6	6
United Kingdom (*billion dollars*)	4	4	5	5	5
U.S. cross-border exports (*billion dollars*)	63	70	73	71	75
Japan (*billion dollars*)	12	12	11	9	10
United Kingdom (*billion dollars*)	7	6	7	8	8
Canada (*billion dollars*)	6	7	7	6	7

[1] Includes lodging, eating and drinking places, travel agencies, and tour operators.

[2] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-7b
Travel and tourism services: U.S. sector characteristics

U.S. position in world market:

- In 1999, the United States recorded the highest proportion for any country that reported travel receipts (cross-border exports) from non-resident visitors, at 16.5 percent.
- The U.S. was a leading market in terms of visits by non-residents in 1999, with 7.3 percent of the total reported.

Factors affecting international competitiveness:

- U.S. currency stability and favorable exchange rates, and operating efficiencies have improved recently.
- Consistent quality of travel product commensurate with each segment's price level.

Government programs & regulation:

- Visa waiver programs, expedited visa processing through INSPASS.

Trade measures:

- According to the United States' WTO GATS Schedule of Commitments, official tourism offices with diplomatic or official status are not permitted to operate on a commercial basis in the United States or to act as agents or principals in commercial transactions, with regard to travel agent and tour operator services.
- The number of concessions available for commercial operations of tour guide services in federal, state, and local facilities is limited, when services are to be provided through a commercial presence.

Special sector characteristic:

- Continuation of long-term trend of lodging properties affiliating with established companies that market through well-known chains, providing shared marketing and reservation services and greater access to financing.
- Marketing affiliations in the travel industry have increased, such as those through which consumers earn airline frequent flyer miles by staying at particular hotels.

Source: Information sources for this table are given at the end of this appendix.

Table G-7c
Travel and tourism services: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Tourism revenues (*million dollars*)	1,110	1,333	1,515	1,759	1,901
Daily expenditure per visitor (*dollars*)	169	182	117	113	115
Visitors to Cuba (*thousands*)	746	1004	1,170	1,416	1,603
From Canada	144	163	170	216	([1])
From Italy	115	192	200	187	([1])
From Germany	57	80	87	149	([1])
From Spain	90	118	117	140	([1])
Room supply (*thousands*)	24	27	27	29	33
Occupancy rate (*percent*)	53	56	54	64	67

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-7d
Travel and tourism services: Cuban sector characteristics

Cuban position in world market:

- Underdeveloped industry relative to Caribbean and other Latin American tourism markets.

Factors affecting international competitiveness:

- Proximity to United States.
- High operating costs relative to income generated, as tourism inputs are chiefly imported and management of supplies, equipment, and personnel are weak.
- Professionalism of tourism management and operations personnel is low, as tourism education and training are new and insufficient. Political considerations influence staffing decisions in government-run operations. Nevertheless, mixed-capital corporations with foreign administration have increased productivity.
- Variability of tourism products' quality is high within hotel amenity rating categories. Low supply of high quality tourism amenities and facilities.
- Construction industry unable to meet Ministry of Tourism's expansion and renovation goals for the sector.

Marketing:

- Cuban travel agencies, tourism bureaus, and designated broadcasting channels have been established to assist international visitors in numerous regions in Cuba.
- Cuba's Ministry of Tourism established representative offices in numerous countries, most notably in Brazil, Canada, the Dominican Republic, and Mexico, and at least six countries in Western Europe. Nevertheless, Cuba's international marketing budget is considered low and directed to the relatively low-priced package tour segment of visitors.
- Comparatively low incidence of revisiting Cuba.

Government programs & regulation:

- Ministry of Tourism has structured tourism largely in holding corporations with hotel and service chains operating as Government-owned and mixed-capital partnerships with foreign investors.
- Restrictions on the sources of procurement of food and types of food sold at various food-serving establishments.

Source: Information sources for this table are given at the end of this appendix.

Table G-8a
Beef: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	41,878	40,768	40,325	39,650	45,462
U.S. imports (*million dollars*)	1,435	1,337	1,607	1,839	2,132
Canada (*million dollars*)	358	461	611	*736*	*937*
Australia (*million dollars*)	386	282	354	468	*506*
New Zealand (*million dollars*)	360	272	330	329	336
U.S. exports (*million dollars*)	2,647	2,429	2,497	2,326	2,666
Japan (*million dollars*)	1,699	1,505	1,387	1,302	1,372
Mexico (*million dollars*)	86	163	300	398	454
Korea (*million dollars*)	321	244	292	142	331
Apparent U.S. consumption (*million dollars*)	40,666	39,676	39,435	39,163	44,928
Ratio of exports to production (*percent*)	6	6	6	6	6
Ratio of imports to apparent consumption (*percent*)	4	3	4	*5*	*5*
Employment (*thousands*)	82	84	87	[1]90	[1]90
Number of establishments (*hundreds*)	836	812	822	*795*	*759*

[1] Estimated by the Commission.

Note.—Sector covered under HTS 0201.10 - 0202.30; 0210.20; 1602.50.

Source: Information sources for this table are given at the end of this appendix.

Table G-8b
Beef: U.S. sector characteristics

U.S. position in world market:

- Share of world production (25%, stable), consumption (26%, stable), exports (19%, rising), imports (29% rising).
- U.S. is world's leading producer, consumer, and importer of beef, and 3rd leading exporter.

Factors affecting international competitiveness:

- Large supplies of low-cost grain; efficient cattle raising and processing sectors.
- Advanced technology including cow breeding and genetics, animal feeding and husbandry, marketing and distribution methods.
- Proximity to important Asian markets (Japan and Korea) in relation to major competitors (e.g., EU, Argentina, and Brazil).
- NAFTA increased U.S. trade with Canada and Mexico at expense of Australia, New Zealand, and the EU.

Government programs & regulations:

- USDA export promotion programs.
- Purchases under several programs (e.g., school lunch program) and purchases for U.S. military.

Trade measures:

- Beef imports subject to tariff-rate quotas with relatively low tariff on in-quota imports and high tariffs for over-quota imports.
- Extensive sanitary and phytosanitary measures on imported live animals and beef.

Special sector characteristics:

- U.S. produces and exports high-quality, grain-fed beef, and imports mostly lower-quality grass-fed beef for manufacturing into beef products, such as hamburgers.
- Must compete with exports from the EU that receive government assistance.

Source: Information sources for this table are given at the end of this appendix.

Table G-8c
Beef: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(1,000 metric tons)*	64.4	68.4	67.6	75.0	([1])
Cuban imports *(1,000 metric tons)*	0.1	0.1	0.1	0.1	([1])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([1])
Apparent Cuban consumption *(1,000 metric tons)*	64.5	68.5	67.8	75.1	([1])
Ratio of exports to production (*percent*)	0	0	0	0	([1])
Ratio of imports to apparent consumption (*percent*)	([2])	([2])	([2])	([2])	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

[2] Negligible or nil.

Note.—Sector covered under HTS 0201.10 - 0202.30; 0210.20; and 1602.50.

Source: Information sources for this table are given at the end of this appendix.

Table G-8d
Beef: Cuban sector characteristics

Cuban position in world market:
- Cuba accounts for less than 1 percent of world beef production, consumption, and trade.
- As world beef market grows Cuba is becoming even less important.

Factors affecting international competitiveness:
- Cuba lacks sufficient grain production or grassland to be internationally competitive in the production of beef.
- Most cattle are raised and most beef produced on inefficient state controlled operations.

Trade measures:
- Beef imports are administered by the government.
- Sanitary measures are applied to imported beef.

Special sector characteristics:
- Beef distribution is generally through government rationing.
- Most Cuban beef imports serve the hotel and tourist industry.

Source: Information sources for this table are given at the end of this appendix.

Table G-9a
Pork: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	17,635	20,061	21,264	18,498	19,115
U.S. imports (*million dollars*)	694	737	759	690	761
Canada (*million dollars*)	429	486	480	414	499
Denmark (*million dollars*)	184	168	175	169	160
Poland (*million dollars*)	18	16	21	24	28
U.S. exports (*million dollars*)	844	1,013	1,037	1,020	1,017
Japan (*million dollars*)	594	750	680	596	639
Mexico (*million dollars*)	38	46	68	99	110
Canada (*million dollars*)	43	71	102	90	87
Apparent U.S. consumption (*million dollars*)	17,485	19,785	20,986	18,168	18,859
Ratio of exports to production (*percent*)	5	5	5	6	5
Ratio of imports to apparent consumption (*percent*)	4	4	4	4	4
Employment (*thousands*)	62	63	61	174	176
Number of establishments (*hundreds*)	802	770	770	757	728

[1] Estimated by the Commission.

Note.—Sector covered under HTS 0203.11 - 0203.29; 0210.11 - 0210.19; and 1602.41 - 1602.49.

Source: Information sources for this table are given at the end of this appendix.

Table G-9b
Pork: U.S. sector characteristics

U.S. position in world market:
- Share of world production (11%, stable), consumption (11%, stable), exports (17%, unstable), imports (15% stable).
- U.S. is world's leading producer and consumer of pork, 3rd leading exporting country, and 2nd leading importing country.

Factors affecting international competitiveness:
- Large supplies of low-cost grain, the largest cost input; efficient swine raising and pork processing sectors.
- Advanced technology including hog breeding and genetics, animal feeding and husbandry, marketing and distribution methods.
- Proximity to important Asian markets (e.g., Japan, Korea, and Hong Kong) in relation to major competitors (e.g., EU and Brazil).
- Trend to consolidation and coordination throughout production, processing, and distribution.

Government programs & regulations:
- USDA export promotion programs.
- Purchases under several programs (e.g., school lunch program) and purchases for U.S. military.

Trade measures:
- Relatively low tariffs.
- Extensive sanitary and phytosanitary measures on imported live hogs and pork.

Special sector characteristics:
- Trade restricted by religious dietary laws.
- Must compete with exports from the EU that receive government assistance.
- Trend to further processed products at retail level.

Source: Information sources for this table are given at the end of this appendix.

Table G-9c
Pork: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(1,000 metric tons)*	71.6	74.4	73.4	73.4	([1])
Cuban imports *(1,000 metric tons)*	3.5	5.7	6.0	9.8	([1])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([1])
Apparent Cuban consumption *(1,000 metric tons)*	75.1	80.1	79.4	83.2	([1])
Ratio of exports to production (*percent*)	0	0	0	0	([1])
Ratio of imports to apparent consumption (*percent*)	5	7	8	12	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Note.—Sector covered under HTS 0203.11 - 0203.29; 0210.19; and 1602.41 - 1602.49.

Source: Information sources for this table are given at the end of this appendix.

Table G-9d
Pork: Cuban sector characteristics

Cuban position in world market:

- Cuba accounts for less than 1 percent of world pork production, consumption, and trade.
- Cuba is becoming even less important in the world market for pork.

Factors affecting international competitiveness:

- Cuba lacks sufficient grain production to be competitive in the production of pork.
- Cuba is dependent on imported feed, although some molasses (a by-product of sugar production) and food waste is fed to swine.
- Pork is produced on inefficient state processing plants from swine raised on state farms and cooperatives.

Trade measures:

- Pork imports are administered by the government.
- Sanitary measures are applied to imported pork.

Special sector characteristics:

- Historically, Cuba has been a major pork importing country.
- Pork has traditionally been a preferred meat for Cubans.
- Pork distribution is generally through government rationing.
- Most Cuban pork imports serve the hotel and tourist industry.

Source: Information sources for this table are given at the end of this appendix.

Table G-10a
Poultry: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	14,592	17,087	17,115	17,899	18,032
U.S. imports (*million dollars*)	13	16	21	26	39
Canada (*million dollars*)	10	13	17	21	33
France (*million dollars*)	2	1	1	2	4
Israel (*million dollars*)	1	1	2	2	2
U.S. exports (*million dollars*)	2,026	2,483	2,396	2,140	1,766
Hong Kong (*million dollars*)	403	419	430	361	397
Canada (*million dollars*)	169	169	202	230	216
Mexico (*million dollars*)	164	208	226	230	199
Apparent U.S. consumption (*million dollars*)	12,579	14,620	14,740	15,785	16,305
Ratio of exports to production (*percent*)	14	15	14	12	10
Ratio of imports to apparent consumption (*percent*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	235	238	239	2250	2252
Number of establishments (*hundreds*)	450	459	445	2450	2450

[1] Less than 0.5 percent.

[2] Estimated by the Commission.

Note.—Sector covered under HTS 0207.10 - 0207.50; and 1602.20 - 1602.39.

Source: Information sources for this table are given at the end of this appendix.

Table G-10b
Poultry: U.S. sector characteristics

U.S. position in world market:
- Share of world production (29%, stable), consumption (24%, stable), exports (42%, falling), imports (less than 0.5 % stable).
- U.S. is world's leading producer, consumer, and exporter of poultry.

Factors affecting international competitiveness:
- Large supplies of low-cost grain, the largest cost input; efficient poultry raising and processing sectors.
- Advanced technology including poultry breeding and genetics, animal feeding and husbandry, marketing and distribution methods.
- Proximity to Asian (e.g., Japan, Korea, and Hong Kong), Canada, and Mexico over international competitors (e.g., EU and Brazil).

Government programs & regulations:
- USDA export promotion programs.
- Purchases under several programs (e.g., school lunch program) and purchases for U.S. military.

Trade measures:
- Relatively low tariffs.
- Extensive sanitary and phytosanitary measures on imported poultry.

Special sector characteristics:
- Long term trend toward consolidation and vertical coordination.
- Poultry markets includes both relatively high-valued further processed products, such as cooked and ready-to-cook products, as well as relatively low-valued products, such as whole chicken and turkey wings.
- Large share of market consists of branded products.
- Must compete with exports from the EU that receive government assistance.

Source: Information sources for this table are given at the end of this appendix.

Table G-10c
Poultry: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(1,000 metric tons)*	67	62	64	64	([1])
Cuban imports *(1,000 metric tons)*	22	21	19	32	([1])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([1])
Apparent Cuban consumption *(1,000 metric tons)*	89	83	83	96	([1])
Ratio of exports to production (*percent*)	0	0	0	0	([1])
Ratio of imports to apparent consumption (*percent*)	25	25	23	33	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Note.—Sector covered under HTS 0207.10 - 0207.50; and 1602.39.

Source: Information sources for this table are given at the end of this appendix.

Table G-10d
Poultry: Cuban sector characteristics

Cuban position in world market:
- Cuba accounts for less than 1 percent of world poultry production, consumption, and trade.

Factors affecting international competitiveness:
- Cuba lacks sufficient grain production to be competitive in the production of poultry.
- Most poultry are raised on state farms and are processed in government facilities.

Trade measures:
- Poultry imports are administered by the government.

Special sector characteristics:
- Most Cuban poultry imports serve the hotel and tourist industry.
- Poultry distribution is generally through government rationing.

Source: Information sources for this table are given at the end of this appendix.

Table G-11a
Dairy products: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	55,800	58,100	60,500	62,000	63,000
U.S. imports (*million dollars*)	1,052	1,198	1,144	1,367	1,408
EU (*million dollars*)	624	714	629	661	721
New Zealand (*million dollars*)	193	253	276	385	331
Canada (*million dollars*)	22	32	38	62	87
U.S. exports (*million dollars*)	636	506	625	606	605
Mexico (*million dollars*)	114	97	153	163	159
Japan (*million dollars*)	83	85	83	87	90
Canada (*million dollars*)	45	58	57	57	70
Apparent U.S. consumption (*million dollars*)	56,216	58,792	61,019	62,761	63,803
Ratio of exports to production (*percent*)	1	1	1	1	1
Ratio of imports to apparent consumption (*percent*)	2	2	2	2	2
Employment (*thousands*)	662	650	640	630	620
Number of establishments (*thousands*)	143	135	130	140	130

Note.—Dairy products includes all dairy products in HTS chapter 4, ice cream (HTS chapter 21), and casein, caseinates, and milk proteins (HTS chapter 35).

Source: Information sources for this table are given at the end of this appendix.

Table G-11b
Dairy products: U.S. sector characteristics

U.S. position in world market:
- Share of world production (13%, stable), consumption (13%, stable), exports (2%, rising), imports (5% stable).
- The United States is world's leading producer and consumer of dairy products.

Factors affecting international competitiveness:
- Availability of low-cost feed and grassland.
- Advanced technology including cow breeding and genetics, animal feeding and husbandry, marketing and distribution methods.

Government programs & regulations:
- Extensive government intervention in pricing and marketing of all dairy products.
- Export assistance through the USDA Dairy Export Incentive Program.
- Purchases under several programs (e.g., school lunch program) and purchases for U.S. military.

Trade measures:
- Imports subject to TRQs with high tariffs for over-quota quantities.
- Extensive sanitary and phytosanitary measures on imported dairy products.

Special sector characteristics:
- Highly complex system of production, marketing, and distribution.
- Perishability of the products requires refrigeration and efficient transportation networks.

Source: Information sources for this table are given at the end of this appendix.

Table G-11c
Dairy products: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban milk production *(1,000 metric tons)*	611	640	651	655	610
Cuban imports *(1,000 metric tons)*	45	30	31	24	([1])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([1])
Apparent Cuban consumption *(1,000 metric tons)*	656	670	682	679	([1])
Ratio of exports to production (*percent*)	0	0	0	0	([1])
Ratio of imports to apparent consumption (*percent*)	7	4	5	4	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Note.—Dairy products includes all dairy products in HTS chapter 4, ice cream (HTS chapter 21), and casein, caseinates, and milk proteins (HTS chapter 35).

Source: Information sources for this table are given at the end of this appendix.

Table G-11d
Dairy products: Cuban sector characteristics

Cuban position in world market:

- Cuba has accounted for less than 1 percent of world dairy production, consumption, and trade.

Factors affecting international competitiveness:

- Cuba lacks grazing land and sufficient grain production to be international competitive in the production of dairy products.
- Most milk and dairy products produced on inefficient state controlled farms.
- Inadequate refrigeration facilities.

Trade measures:

- Dairy imports are administered by the government.
- Strict sanitary restrictions on dairy imports.

Special sector characteristics:

- Sales of dairy products is generally through government rationing.
- Dairy imports include milk powders, mainly from New Zealand under barter arrangements, and high-valued dairy products, such as milk and cheese, from Canada and the EU.
- Most high-valued dairy products are imported for the tourist industry.
- Sharp decline in cow numbers and production since 1989.

Source: Information sources for this table are given at the end of this appendix.

Table G-12a
Wheat: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars, farm value*) .	8,007	9,787	9,782	8,387	6,781
U.S. imports (*million dollars*)	236	242	356	281	272
Canada (*million dollars*)	234	242	356	279	272
U.S. exports (*million dollars*)	5,441	6,265	4,095	3,697	3,554
Egypt (*million dollars*)	760	775	502	514	479
Japan (*million dollars*)	511	637	554	472	453
Phillippines (*million dollars*)	299	325	308	223	235
Apparent U.S. consumption (*million dollars*) . .	2,802	3,764	6,043	4,971	3,499
Ratio of exports to production (*percent)*	68	64	42	44	52
Ratio of imports to apparent consumption (*percent*)	8	6	6	6	8
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of farms (*thousands*)[2]	355	339	322	298	282

[1] Not available.

[2] Number of farms with annual sales of $10,000 or more.

Note.—Sector covered under HTS 1001.10 - 1001.90, and 1101.00. Production is on a crop year basis ending in the year shown. Consumption does not include inventory changes. Data shown contain only wheat.

Source: Information sources for this table are given at the end of this appendix.

Table G-12b
Wheat: U.S. sector characteristics

U.S. position in world market:
- Share of world production (29%, stable), consumption (24%, stable), exports (28%, falling), imports (less than 0.5%, stable).
- U.S. is world's leading producer, consumer, and exporter of wheat.
- U.S. is a minor wheat flour exporter.

Factors affecting international competitiveness:
- U.S. wheat is highly competitive internationally based on price and quality.
- Highly efficient system of grain transportation and handling.
- Gulf ports have lower shipping costs to Caribbean markets than major competitors (e.g., Argentina, Canada, EU).

Government programs & regulations:
- USDA credit guarantee program aids considerably U.S. sales abroad.
- Wheat industry representative organizations use government funded market promotion to raise foreign demand for U.S. wheat.

Trade measures:
- U.S. tariffs are generally low.
- There are few phytosanitary barriers affecting trade as a result of a well established grading system.

Special sector characteristics:
- Wheat can be traded either as flour or unmilled wheat.
- Many importers prefer to import wheat rather than flour, allowing them to use domestic mills to produce flour.
- U.S. wheat must compete with EU wheat receiving export subsidies and official financing, and with Canadian wheat sold by a single seller, the Canadian Wheat Board.

Source: Information sources for this table are given at the end of this appendix.

Table G-12c
Wheat[1]: Cuban sector profile, 1995-99

Sector data	1995/96	1996/97	1997/98	1998/99	1999/00
Cuban production (*wheat only*)	0	0	0	0	0
Cuban imports *(1,000 metric tons)*	776	954	946	951	(2)
EU *(1,000 metric tons)*	615	714	810	876	(2)
Argentina *(1,000 metric tons)*	0	197	9	0	(2)
Canada *(1,000 metric tons)*	66	37	110	59	(2)
Cuban exports *(1,000 metric tons)*	0	0	0	0	0
Apparent Cuban consumption *(1,000 metric tons)*	776	954	946	951	(2)
Ratio of exports to production (*percent*)	(1)	(1)	(1)	(1)	(2)
Ratio of imports to apparent consumption (*percent*)	100	100	100	100	100
Employment (milling *employees*)	(2)	(2)	(2)	(2)	(2)
Number of establishments (*wheat mills*)	8	8	(2)	(2)	5

[1] Include wheat and wheat flour (wheat equivalent basis).
[2] Not available.
Source: Information sources for this table are given at the end of this appendix.

Table G-12d
Wheat: Cuban sector characteristics

Cuban position in world market:
- Cuba does not produce or export wheat.
- Cuba's share of world imports is negligible.

Government programs & regulation:
- As a basic foodstuff, Cubans receive a ration of subsidized bread.

Trade measures:
- There are few or no known wheat trade barriers.
- Most Cuban wheat imports coming from the EU (France) financed by credit from COFACE.
- France provides a barter program of wheat for sugar, valued at $180 million in 2000.

Special sector characteristics:
- A diminishing portion of Cuban wheat imports occur in the form of wheat flour rather than wheat.

Source: Information sources for this table are given at the end of this appendix.

Table G-13a
Rice: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	1,940	2,050	2,160	2,270	2,380
U.S. imports (*million dollars*)	121	156	201	188	187
Thailand (*million dollars*)	90	109	146	126	117
India (*million dollars*)	20	29	30	40	41
Pakistan (*million dollars*)	5	4	4	8	7
U.S. exports (*million dollars*)	996	1,029	932	1,208	944
Japan (*million dollars*)	31	98	114	116	144
EU (*million dollars*)	98	139	122	143	123
Mexico (*million dollars*)	74	95	93	91	88
Apparent U.S. consumption (*million dollars*)	1,065	1,177	1,429	1,250	1,623
Ratio of exports to production (*percent*)	51	50	43	53	40
Ratio of imports to apparent consumption (*percent*)	11	13	14	15	12
Employment (*thousands*)	4	4	4	4	4
Number of establishments	62	65	68	70	70

Note.—Sector covered under HTS 1006.00. Production and industry data refer to the rice milling industry (NAICS No. 3112.12).

Source: Information sources for this table are given at the end of this appendix.

Table G-13b
Rice: U.S. sector characteristics

U.S. position in world market:
- Share of world production (2%, stable), consumption (1%, rising), exports (11%, stable), and imports (1%, rising)
- The United States is the world's fourth leading rice exporter (behind Thailand, Vietnam, and China).

Factors affecting international competitiveness:
- U.S. rice tends to be higher priced than international competitors.
- U.S. competitiveness based on nonprice factors, such as quality, preference, and delivery factors.
- U.S. rice milling industry is centered mostly along the U.S. Gulf ports.
- Highly efficient system of rice handling and transportation (including port facilities).

Government programs & regulations:
- USDA credit guarantee program aids considerably U.S. sales abroad.
- U.S. rice industry representative organizations use government funded market promotion to raise foreign demand for U.S. rice.
- USDA domestic loan support program is tied to world export prices to encourage U.S. rice growers to export.

Trade measures:
- U.S. tariffs are generally low.
- There are few phytosanitary barriers affecting trade as a result of a well-established grading system.

Special sector characteristics:
- Although most rice traded internationally is milled rice, some rough rice exports occur that require further milling in an importing country.
- Most U.S. rice imports consist of specialty rice from Thailand, Pakistan, and India.

Source: Information sources for this table are given at the end of this appendix.

Table G-13c
Rice: Cuban sector profile, 1995-99

Sector data	1995/96	1996/97	1997/98	1998/99	1999/00
Cuban production *(1,000 metric tons)*	158	262	297	298	298
Cuban imports *(1,000 metric tons)*	318	389	267	336	([1])
Thailand *(1,000 metric tons)*	107	143	0	162	([1])
China *(1,000 metric tons)*	0	0	85	145	([1])
Viet Nam *(1,000 metric tons)*	200	232	180	24	([1])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([1])
Apparent Cuban consumption *(1,000 metric tons)*	476	651	564	634	([1])
Ratio of exports to production (*percent*)	([1])	([1])	([1])	([1])	([1])
Ratio of imports to apparent consumption (*percent*)	67	60	47	53	([1])
Harvested acreage *(1,000 hectares)*	87	150	146	145	145

[1] Not available.

Note.—Production and trade are on a milled rice equivalent basis using a conversion factor of 71 percent from rough rice basis.

Source: Information sources for this table are given at the end of this appendix.

Table G-13d
Rice: Cuban sector characteristics

Cuban position in world market:

- Cuba's share of world consumption, production, and imports are negligible. Cuba exports no rice.

Government programs & regulation:

- As a basic foodstuff, each Cuban is guaranteed a monthly ration of rice.
- Even prior to the U.S. sanctions, Cuba has long pursued a policy to promote domestic production of rice.

Trade measures:

- There are few or no known rice trade barriers.

Special sector characteristics:

- Although rice is rationed in Cuba and sold in state stores, it is also traded in the free markets.
- With rice a staple in the Cuban diet, Cuba is a major rice consumer, with a per capita consumption level at about four times the U.S. level.
- A large portion of Cuban rice imports from China or Vietnam are under barter or in-kind arrangements.
- Most rice is grown under irrigation in Cuba, and in the late 1980s, the irrigation facilities were improved.

Source: Information sources for this table are given at the end of this appendix.

Table G-14a
Feedgrain[1]: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	24,800	26,700	28,300	25,400	20,400
U.S. imports (*million dollars*)	365	458	500	424	399
Canada (*million dollars*)	321	397	383	250	229
Chile (*million dollars*)	17	31	36	55	59
EU (*million dollars*)	21	13	52	66	54
U.S. exports (*million dollars*)	8,428	9,633	6,277	5,288	5,805
Japan (*million dollars*)	2,194	2,776	2,224	1,664	1,599
Mexico (*million dollars*)	682	1,416	632	997	967
Korea (*million dollars*)	1,116	1,280	452	468	575
Apparent U.S. consumption (*million dollars*)	16,737	17,525	22,523	20,536	14,994
Ratio of exports to production (*percent*)	34	36	22	21	28
Ratio of imports to apparent consumption (*percent*)	2	3	2	2	3
Employment (*thousands*)	([2])	([2])	([2])	([2])	([2])
Number of farms (*thousands*)[3]	355	339	322	298	282

[1] Feedgrain includes corn, sorghum, barley, oats, rye, and other miscellaneous grains.

[2] Not available.

[3] Number of farms with annual sales of $10,000 or more.

Note.—Sector covered under HTS 1002.00, 1005.90, and 1007.00 - 1008.90. The value of production is estimated at the farm value.

Source: Information sources for this table are given at the end of this appendix.

Table G-14b
Feedgrain: U.S. sector characteristics

U.S. position in world market:
- Share of world production (30%, stable), consumption (24%, stable), exports (54-67%, rising), imports (3%).
- The United States is the world's largest exporter of corn and feed grain.

Factors affecting international competitiveness:
- The United States is highly internationally competitive, based on price and quality factors.
- Transportation costs and handling charges are also an important factors influencing U.S. competitiveness.
- Most U.S. corn exports transit through U.S. Gulf ports, and therefore have lower costs of shipping to Caribbean markets than major competitors (e.g., EU, Argentina, Canada, Australia).

Government programs & regulations:
- USDA credit guarantee program assist U.S. sales abroad.
- U.S. feedgrain groups also use government funded market promotion to raise foreign demand for U.S. feedgrains to promote foreign animal feed use.

Trade measures:
- U.S. tariffs are generally low.
- Few phytosanitary barriers affecting trade as a result of a well established grading system.

Special sector characteristics:
- Corn and feedgrain are integrated into a domestic feed operations, such as a poultry or hog operations, that also require sizable amounts of oilseed meal for a balanced feed ration.

Source: Information sources for this table are given at the end of this appendix.

Table G-14c
Feedgrain: Cuban sector profile, 1995-99

Sector data	1995/96	1996/97	1997/98	1998/99	1999/00
Cuban production *(1,000 metric tons)*	82	105	127	131	131
Cuban imports *(1,000 metric tons)*	275	230	38	65	([1])
Argentina *(1,000 metric tons)*	163	195	38	28	([1])
Canada *(1,000 metric tons)*	112	35	0	37	([1])
Cuban exports (*million dollars*)	0	0	0	0	0
Apparent Cuban consumption *(1,000 metric tons)*	357	335	165	196	([1])
Ratio of exports to production (*percent*)	0	0	0	0	0
Ratio of imports to apparent consumption (*percent*)	77	69	23	33	([1])
Harvested acreage (*1,000 hectares*)	78	90	100	101	101

[1] Not available.
Source: Information sources for this table are given at the end of this appendix.

Table G-14d
Feedgrain: Cuban sector characteristics

Cuban position in world market:
- Cuba's share of world feedgrain production, consumption, and trade is negligible.

Government programs & regulation:
- Feed mills are state owned in Cuba, as are the large poultry and hog operations.

Trade measures:
- There are few or no known corn and feedgrain trade barriers.

Special sector characteristics:
- Cuba has an extensive grain-fed livestock sector, mainly hogs and poultry, that consume sizable amounts of corn and feedgrain.
- Corn is the principal feedgrain grown and imported into Cuba.

Source: Information sources for this table are given at the end of this appendix.

Table G-15a
Animal feed: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	30,980	35,181	36,899	37,486	37,960
U.S. imports (*million dollars*)	510	689	717	661	604
Canada (*million dollars*)	361	507	527	488	430
Germany (*million dollars*)	40	42	36	34	38
Thailand (*million dollars*)	19	22	23	26	20
U.S. exports (*million dollars*)	3,815	4,370	4,831	4,307	3,621
Japan (*million dollars*)	649	643	706	624	617
Canada (*million dollars*)	506	551	598	576	530
Mexico (*million dollars*)	211	238	211	253	267
Apparent U.S. consumption (*million dollars*)	27,675	31,500	32,785	33,840	34,943
Ratio of exports to production (*percent*)	12	12	13	11	10
Ratio of imports to apparent consumption (*percent*)	2	2	2	2	2
Employment (*thousands*)	56	54	53	53	53
Number of establishments	1,875	1,850	1,825	1,800	1,800

Note.—Sector covered under HTS 1208, 1213, 1214, and 2301 - 2309.

Source: Information sources for this table are given at the end of this appendix.

Table G-15b
Animal feed: U.S. sector characteristics

U.S. position in world market:
- Share of world production (24%, stable), exports (22%, falling), and imports (3%, falling).
- The United States is the world's largest producer of animal feed ingredients and finished feed products.

Factors affecting international competitiveness:
- The United States is highly efficient internationally as a result of low costs of production, favorable climate, and significant investment in mills and processing plants.
- U.S. products benefit from efficient infrastructure (especially transportation), and high quality products.
- Trend toward consolidation in industry and toward integrated feed-livestock operations.

Government programs & regulations:
- Market promotion funds for certain ingredients and products.
- Strict government regulations on medicated feeds.
- Ban on feeding ruminant-based meat and bone meal to ruminants.

Trade measures:
- Low tariffs (generally under 5 percent).
- Current ban on meat and bone meal originated from BSE-affected countries (e.g., EU, Oman, Switzerland).

Special sector characteristics:
- Main focus of the animal feed industry is on regional U.S. markets.
- Most international trade is in ingredients (soybean meal, corn gluten) rather than mixed feeds and complete feeds.
- Most marketing regionally-oriented in mixed feeds; most procurement of ingredients also regional.
- Price and availability main drivers in procurement of ingredients for mixed and complete feeds.

Source: Information sources for this table are given at the end of this appendix.

Table G-15c
Animal feed: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production[1] *(1,000 metric tons)*	721	717	684	597	([2])
Cuban imports *(1,000 metric tons)*	273	277	236	273	([2])
Argentina *(1,000 metric tons)*	217	261	217	269	([2])
Chile *(1,000 metric tons)*	11	9	10	3	([2])
Cuban exports *(1,000 metric tons)*	0	0	0	0	0
Apparent Cuban consumption *(1,000 metric tons)*	994	994	920	870	([2])
Ratio of exports to production (*percent*)	0	0	0	0	([2])
Ratio of imports to apparent consumption (*percent*)	27	28	26	31	([2])
Employment (*thousands*)	([2])	([2])	([2])	([2])	([2])
Number of establishments	20	20	20	20	20

[1] Production figures include fish meal and mixed animal feeds only. Production data on molasses for feed use, forage, and edible garbage consumed by much of the livestock in Cuba is unreported. Feed ingredients used in mixed feeds, such as corn, vegetable meal, and other byproducts, are all imported.

[2] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-15d
Animal feed: Cuban sector characteristics

Cuban position in world market:
- Cuba's share of world animal feed production, consumption, and imports is less than 0.5 percent. Cuba exports no animal feed.

Government programs & regulation:
- All marketing and distribution controlled by the state.
- Feed mills state-owned and in process of being consolidated in order to increase production of livestock.

Trade measures:
- Uruguay Round bound tariffs for feed products are set at 40 percent.
- Applied tariff rates unknown.

Special sector characteristics:
- Much of the animal feed products manufactured in Cuba is used for meat production for tourist industry.
- Most livestock fed forage, edible garbage, and byproducts of sugar.

Source: Information sources for this table are given at the end of this appendix.

Table G-16a
Fats and oils: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	7,780	8,220	8,660	10,040	7,900
U.S. imports (*million dollars*)	1,263	1,479	1,514	1,472	1,346
Canada (*million dollars*)	332	398	376	419	375
EU (*million dollars*)	336	448	420	353	340
Malaysia (*million dollars*)	108	115	130	138	178
U.S. exports (*million dollars*)	2,507	1,805	2,151	2,738	1,917
Mexico (*million dollars*)	353	316	368	453	353
Canada (*million dollars*)	121	172	211	185	181
Korea (*million dollars*)	105	59	69	82	127
Apparent U.S. consumption (*million dollars*)	6,536	7,894	8,023	8,774	7,329
Ratio of exports to production (*percent*)	32	22	25	27	24
Ratio of imports to apparent consumption (*percent*)	19	19	19	17	18
Employment (*thousands*)	27	27	26	26	26
Number of establishments (*hundreds*)	527	523	519	515	510

Note.—Sector covered under HTS 1501.00 - 1517.90.

Source: Information sources for this table are given at the end of this appendix.

Table G-16b
Fats and oils: U.S. sector characteristics

U.S. position in world market:
- Share of world production (14%, stable), consumption (13%, rising), exports (9%, falling), and imports (5%, stable)
- The United States is the world's fourth leading fats and oils exporter (mostly soybean oil and beef tallow), behind Malaysia, Argentina, and Indonesia.

Factors affecting international competitiveness:
- The United States is internationally competitive based on price and quality factors.
- Low transportation costs and handling charges are important factors affecting U.S. competitiveness.
- Argentine soybean oil exports have aggressively continued to undercut U.S. soybean oil in price, but U.S. Gulf ports have lower costs of shipping to the Caribbean than most of these exporters.

Government programs & regulations:
- There are few phytosanitary barriers affecting trade in most fats and oils, as U.S. grades are generally well known and accepted in world trade.
- USDA credit guarantee program assists considerably U.S. sales abroad.
- U.S. fats and oils industry representative organizations use market promotion efforts to raise foreign demand for U.S. fats and oils.

Trade measures:
- U.S. tariffs are generally low.

Source: Information sources for this table are given at the end of this appendix.

Table G-16c
Fats and oils: Cuban sector profile, 1995-99

Sector data	1995/96	1996/97	1997/98	1998/99	1999/00
Cuban production *(1,000 metric tons)*	[1]100	[1]100	[1]100	[1]100	[1]100
Cuban imports *(1,000 metric tons)*	103	113	127	126	([2])
Argentina *(1,000 metric tons)*	314	329	27	30	([2])
Brazil *(1,000 metric tons)*	310	30	4	2	([2])
China *(1,000 metric tons)*	351	346	0	0	([2])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([2])
Apparent Cuban consumption *(1,000 metric tons)*	203	213	227	226	([2])
Ratio of exports to production (*percent*)	0	0	0	0	([2])
Ratio of imports to apparent consumption (*percent*)	51	53	56	56	([2])
Employment (*thousands*)	([2])	([2])	([2])	([2])	([2])
Number of establishments (*hundreds*)	([2])	([2])	([2])	([2])	([2])

[1] Estimated; production of lard and tallow.
[2] Not available.
[3] Calendar year imports.
Source: Information sources for this table are given at the end of this appendix.

Table G-16d
Fats and oils: Cuban sector characteristics

Cuban position in world market:
- Cuba's share of world animal feed production, consumption and imports is less than 0.5 percent. Cuba exports no fats and oils.

Government programs and regulations:
- The official Cuban trade agency, Alimport, imports all vegetable oil, either soybean or sunflowerseed oil, depending on prices.
- Some cooking oil is sold in the free markets as well as rationed.

Trade measures:
- There are few or no known fats and oils trade barriers.

Special sector characteristics:
- Cooking oil and lard are the main forms of Cuban consumption of fats and oils.

Source: Information sources for this table are given at the end of this appendix.

Table G-17a
Dry beans: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	634	652	576	567	588
U.S. imports (*million dollars*)	58	63	71	64	83
Canada (*million dollars*)	26	27	32	27	29
India (*million dollars*)	4	5	5	7	22
Mexico (*million dollars*)	10	10	11	8	9
U.S. exports (*million dollars*)	306	309	305	385	325
EU-15 (*million dollars*)	106	97	102	98	96
Mexico (*million dollars*)	14	80	45	121	54
Canada (*million dollars*)	16	17	18	22	46
Apparent U.S. consumption (*million dollars*)	386	406	342	246	346
Ratio of exports to production (*percent*)	48	47	53	68	55
Ratio of imports to apparent consumption (*percent*)	15	16	21	26	24
Number of farms (*thousands*)	12	11	11	11	11

Note.—Sector covered under HTS 0713.00.
Source: Information sources for this table are given at the end of this appendix.

Table G-17b
Dry beans: U.S. sector characteristics

U.S. position in world market:
- Share of world production (3%, stable), consumption (2%, rising), exports (9%, stable), and imports (1%, rising)
- The United States is the world's fourth leading dry bean exporter (behind Canada, China, and Australia).

Factors affecting international competitiveness:
- U.S. beans and lentils tend to be higher priced than international competitors.
- U.S. competitiveness based on non-price factors, such as quality, preference, and delivery factors
- U.S. growers are mostly along the Northern Tier States near Canada, the leading U.S. competitor, offering little transportation advantage over sales to Cuba.

Government programs & regulations:
- There are few phytosanitary barriers affecting trade in edible beans, peas, and lentils.
- U.S. grades are generally well known and accepted in world trade.

Source: Information sources for this table are given at the end of this appendix.

Table G-17c
Dry beans: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(1,000 metric tons)*	11	14	16	18	18
Cuban imports *(1,000 metric tons)*	98	156	189	131	([1])
Canada *(1,000 metric tons)*	26	82	88	129	([1])
China *(1,000 metric tons)*	70	93	99	0	([1])
Argentina *(1,000 metric tons)*	3	0	0	1	([1])
Cuban exports *(1,000 metric tons)*	0	0	0	0	([1])
Apparent Cuban consumption *(1,000 metric tons)*	111	170	205	149	([1])
Ratio of exports to shipments (*percent)*	0	0	0	0	([1])
Ratio of imports to apparent consumption (*percent*)	90	92	92	85	([1])
Harvested acreage *(1,000 hectares*)	44	47	50	45	45
Yield (*metric tons per hectare*)	2.6	3.0	3.1	4.0	4.0

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-17d
Dry beans: Cuban sector characteristics

Cuban position in world market:
- Cuba's share of world production, consumption, and trade is negligible.

Government programs & regulations:
- As a basic foodstuff, each Cuban is guaranteed a monthly ration of dry beans.

Trade measures:
- There are little or no known dry bean trade barriers.
- China supplied 60 percent of Cuban dry bean imports in 1995-97, and these may be barter or countertrade shipments.

Source: Information sources for this table are given at the end of this appendix.

Table G-18a
Cotton: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	6,575	6,524	5,976	4,120	3,836
U.S. imports (*million dollars*)	10	283	3	14	136
Greece (*million dollars*)	0	2	0	3	65
China (*million dollars*)	0	0	0	0	24
Syria (*million dollars*)	0	0	0	0	16
U.S. exports (*million dollars*)	3,681	2,715	2,682	2,545	968
Mexico (*million dollars*)	190	257	354	616	285
Japan (*million dollars*)	409	318	247	252	96
Indonesia (*million dollars*)	377	280	211	151	81
Apparent U.S. consumption (*million dollars*)	2,904	4,092	3,297	1,588	3,004
Ratio of exports to production (*percent*)	56	42	45	62	25
Ratio of imports to apparent consumption (*percent*)	0	7	0	1	5
Employment (*thousands*)	([1])	([1])	173	170	166
Number of establishments (*hundreds*)	328	321	315	308	301

[1] Not available.

Note.—Sector covered under HTS heading 5201.

Source: Information sources for this table are given at the end of this appendix.

Table G-18b
Cotton: U.S. sector characteristics

U.S. position in world market:

- U.S. share of world production is 16% (second only to China), 12% of world consumption, 18% of exports.

Factors affecting international competitiveness:

- The United States is a high-cost producer compared with China, India, Pakistan, and Uzbekistan.
- High U.S. production costs offset by higher productivity.
- U.S. cotton farms are consolidating over time to achieve greater efficiencies through economies of scale.

Government programs:

- U.S. government provides payments to domestic mills and exporters to keep higher-priced U.S. cotton competitive in domestic and world markets.

Special sector characteristics:

- Four farmer-owned cooperatives market approximately one-third of U.S. production.
- Independent merchants and shippers purchase and resell much of the rest.

Source: Information sources for this table are given at the end of this appendix.

Table G-18c
Cotton: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	([1])	([1])	([1])	([1])	([2])
Cuban imports (*million dollars*)	7	14	9	13	([2])
Spain (*million dollars*)	0	0	1	8	([2])
Mexico (*million dollars*)	7	14	8	5	([2])
Former Soviet Union (*million dollars*)	([3])	([3])	([3])	([3])	([2])
Cuban exports (*million dollars*)	0	0	0	0	([2])
Apparent Cuban consumption (*million dollars*)	7	14	9	13	([2])
Ratio of exports to production (*percent*)	0	0	0	0	([2])
Ratio of imports to apparent consumption (*percent*)	90	90	90	96	([2])
Employment (*thousands*)	([2])	([2])	([2])	([2])	([2])
Number of establishments (*hundreds*)	([2])	([2])	([2])	([2])	([2])

[1] Less than $0.5 million.

[2] Not available.

[3] Includes Uzbekistan. ICAC reported trade in quantities only, not value. Estimates show that countries of the former Soviet Union exported approximately 2,000 metric tons each year from 1995 to 1999. At $0.60 per pound, the value equals nearly $3 million.

Source: Information sources for this table are given at the end of this appendix.

Table G-18d
Cotton: Cuban sector characteristics

Cuban position in world market:
- Cuba has negligible cotton production.
- Cuban imports have declined significantly since the collapse and breakup of the Soviet Union.

Trade measures:
- Tariff applied to imported cotton are generally low (less than 10%).

Special sector characteristics:
- Natural suppliers of cotton to Cuba are the United States and Mexico, although Mexico is the second-largest importer in the world, with most of the additional supply coming from the United States.

Source: Information sources for this table are given at the end of this appendix.

Table G-19a
Winter vegetables: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	762	720	779	872	828
U.S. imports (*million dollars*)	672	894	866	1,060	959
Mexico (*million dollars*)	616	796	739	886	766
Canada (*million dollars*)	15	30	44	70	91
Netherlands (*million dollars*)	31	49	57	68	64
U.S. exports (*million dollars*)	83	52	55	59	58
Canada (*million dollars*)	78	51	54	58	57
Mexico (*million dollars*)	4	0	0	0	0
United Kingdom (*million dollars*)	0	0	0	0	0
Apparent U.S. consumption (*million dollars*)	1,352	1,561	1,590	1,873	1,728
Ratio of exports to production (*percent*)	11	7	7	7	7
Ratio of imports to apparent consumption (*percent*)	50	57	54	57	55
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of farms	([1])	([1])	1,159	([1])	([1])

[1] Not available.

Note.—Sector covered under HTS 0702.00, 0707.00, 0709.30, 0709.60.40, and 0709.90.20. Production data for Florida only. Trade data for the period Nov.-June.

Source: Information sources for this table are given at the end of this appendix.

Table G-19b
Winter vegetables: U.S. sector characteristics

U.S. position in world market:
- U.S. is a major producer, importer, and consumer of winter vegetables. (Shares not available owing to seasonal nature of market.)
- U.S. global market position is generally increasing as a producer, importer, and consumer.

Factors affecting international competitiveness:
- The United States is highly efficient owing to climate, land (availability and quality), water, labor (availability and cost), infrastructure (electricity, transportation, refrigeration), and proximity to markets.
- Trend toward consolidation throughout the supply and distribution chain.

Government programs & regulations:
- Marketing orders and market promotion programs.
- Research and agricultural extension programs.

Trade measures:
- Relatively low tariffs; seasonal tariffs, but extensive phytosanitary restrictions.
- Minimum price on imports of tomatoes from Mexico.
- Suspended preferential tariffs for imports of some items from Cuba.

Special sector characteristics:
- Domestic industry concentrated in South Florida, with a wide variation in scale and scope of domestic producers.
- Domestic industry characterized by a high degree of seasonality and perishable products.
- Movement to full-product line, year-round supply and distribution from a variety of domestic and foreign product sources channeled through a declining number of wholesale and retail distributors.

Source: Information sources for this table are given at the end of this appendix.

Table G-19c
Winter vegetables: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(1,000 metric tons)*	518	637	601	846	1,502
Cuban imports *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Canada *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Mexico *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Chile *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Cuban exports *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
EU *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Canada *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Russia *(1,000 metric tons)*	([1])	([1])	([1])	([1])	([1])
Apparent Cuban consumption *(1,000 metric tons)*	518	637	601	846	1,502
Ratio of exports to production (*percent*)	([2])	([2])	([2])	([2])	([2])
Ratio of imports to apparent consumption (*percent*)	([2])	([2])	([2])	([2])	([2])
Employment (*thousands*)	([3])	([3])	([3])	([3])	([3])
Number of establishments (*hundreds*)	([3])	([3])	([3])	([3])	([3])

[1] Less than 500 metric tons.

[2] Less than 0.5 percent.

[3] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-19d
Winter vegetables: Cuban sector characteristics

Cuban position in world market:
- Cuba is a minor global market for and trader of winter vegetables.

Factors affecting international competitiveness:
- Lack of inputs (fertilizer, pesticides) and infrastructure (transportation, cold storage) and low production yields.
- Close to U.S. market; low labor and land costs.

Marketing & distribution:
- State marketing quotas; private agricultural markets.

Government programs & regulation:
- State control of inputs, marketing, and prices.
- State ownership of most land.
- Restrictive government economic policies.

Trade measures:
- Relatively high tariffs (WTO bound 40% ad valorem; applied rate of 10-20% *ad valorem*).

Special sector characteristics:
- Cuba shares similar climate and growing and marketing season with Florida and Mexico.
- Consumption by tourist trade.

Source: Information sources for this table are given at the end of this appendix.

Table G-20a
Tropical fruit: U.S. sector profile, 1995-99

Industry data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	391	406	432	431	450
U.S. imports (*million dollars*)	1,337	1,391	1,466	1,495	1,574
Costa Rica (*million dollars*)	339	351	371	376	468
Ecuador (*million dollars*)	268	256	291	325	328
Colombia (*million dollars*)	160	141	176	172	224
U.S. exports (*million dollars*)	76	79	70	60	64
Canada (*million dollars*)	18	15	16	16	17
Japan (*million dollars*)	22	24	20	15	15
Belgium (*million dollars*)	7	14	18	13	11
Apparent U.S. consumption (*million dollars*)	1,652	1,718	1,828	1,866	1,960
Ratio of exports to production (*percent*)	19	19	16	14	14
Ratio of imports to apparent consumption (*percent*)	81	81	80	79	80
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*thousands*)	9	9	9	9	9

[1] Not available.

Note.—Sector covered under HTS 0803.00, 0804.30, 0804.40, 0804.50, and 0807.20.

Source: Information sources for this table are given at the end of this appendix.

Table G-20b
Tropical fruit: U.S. sector characteristics

U.S. position in world market:

- U.S. share of world: production (0.3%, falling), consumption (5%, steady), exports (4%, rising), imports (30%, rising).

Factors affecting international competitiveness:

- The United States is internationally competitive is some tropical fruit products owing to favorable climate, land (availability and quality), water, labor (availability and cost), infrastructure (electricity, transportation, refrigeration), and proximity to markets.

Government programs & regulation:

- Marketing orders and market promotion programs.
- Research and agricultural extension programs.

Trade measures:

- Relatively low tariffs, but extensive phytosanitary restrictions.
- Suspended preferential tariffs for imports of some items from Cuba.

Special industry characteristics:

- Trade and distribution dominated by a small number of large, multinational firms.
- Domestic industry characterized by a high degree of seasonality and perishable products.
- Trend toward consolidation throughout the supply and distribution chain.
- Movement to full-product line, year-round supply and distribution from a variety of domestic and foreign product sources channeled through a declining number of wholesale and retail distributors.

Source: Information sources for this table are given at the end of this appendix.

Table G-20c
Tropical fruit: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*1,000 metric tons*)	566	701	545	716	938
Cuban imports (*1,000 metric tons*)	([1])	0.2	0.1	([1])	0.1
EU (*1,000 metric tons*)	([2])	([2])	([2])	([2])	([2])
Chile (*1,000 metric tons*)	([2])	([2])	([2])	([2])	([2])
Thailand (*1,000 metric tons*)	([2])	([2])	([2])	([2])	([2])
Cuban exports (*1,000 metric tons*)	11	11	11	11	11
EU (*1,000 metric tons*)	([2])	([2])	([2])	([2])	([2])
Saudi Arabia (*1,000 metric tons*)	([2])	([2])	([2])	([2])	([2])
Russia (*1,000 metric tons*)	([2])	([2])	([2])	([2])	([2])
Apparent Cuban consumption (*1,000 metric tons*)	555	690	534	705	927
Ratio of exports to production (*percent*)	2.0	1.6	2.1	1.6	1.2
Ratio of imports to apparent consumption (*percent*)	([3])	([3])	([3])	([3])	([2])
Employment (*thousands*)	([2])	([2])	([2])	([2])	([2])
Number of establishments (*hundreds*)	([2])	([2])	([2])	([2])	([2])

[1] Less than 100 metric tons

[2] Not available.

[3] Less than 0.5 percent.

Source: Information sources for this table are given at the end of this appendix.

Table G-20d
Tropical fruit: Cuban sector characteristics

Cuban position in world market:
- Cuba is a minor global market for and trader of tropical fruits. Potential to be a major supplier to the U.S. market.

Factors affecting international competitiveness:
- Lack of inputs (fertilizer, pesticides) and infrastructure (transportation, cold storage) and low production yields.
- Close to U.S. market; low labor and land costs.

Government programs & regulation:
- State control of inputs, marketing, and prices.
- State ownership of most land.

Trade measures:
- Relatively high tariffs (WTO bound 40% ad valorem; applied rate of 10-20% ad valorem).

Special sector characteristics:
- Cuba shares similar climate and growing and marketing season with Florida and Mexico.
- Consumption by tourist trade.

Source: Information sources for this table are given at the end of this appendix.

Table G-21a
Citrus fruit: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	2,362	2,515	2,583	2,600	2,565
U.S. imports (*million dollars*)	245	377	327	395	539
Brazil (*million dollars*)	83	185	106	135	189
Mexico (*million dollars*)	101	97	89	113	140
Spain (*million dollars*)	16	27	47	50	114
U.S. exports (*million dollars*)	1,071	1,037	1,095	1,019	887
Japan (*million dollars*)	394	366	331	267	270
Canada (*million dollars*)	284	288	299	308	256
Belgium (*million dollars*)	24	25	36	63	76
Apparent U.S. consumption (*million dollars*)	1,536	1,855	1,815	1,976	2,217
Ratio of exports to production (*percent*)	45	41	42	39	35
Ratio of imports to apparent consumption (*percent*)	16	20	18	20	24
Employment (*thousands*)	94	93	93	92	92
Number of establishments (*hundreds*)	179	177	176	176	175

Note.—Sector covered under HTS 0805 and HTS 2009.11 - 2009.30.

Source: Information sources for this table are given at the end of this appendix.

Table G-21b
Citrus fruit: U.S. sector characteristics

U.S. position in world market:
- U.S. share of world: production (22%, rising); consumption (5%, rising); exports (12%, rising); imports (4%, falling).

Factors affecting international competitiveness:
- The United States is competitive internationally owing to capital availability, agricultural research and development, favorable climate and land, irrigation, infrastructure (such as roads, electricity, shipping ports, cold storage, and labor availability).
- Proximity to markets, particularly for fresh fruit.

Government programs & regulations:
- Marketing orders and market promotion programs.
- Research and agricultural extension programs.

Trade measures:
- Relatively low tariffs on fresh produce, high tariffs on citrus juices.
- Phytosanitary restrictions on fresh citrus from various countries.

Special sector characteristics:
- The sector is geographically limited to a few states, including Florida, California, Arizona, and Texas.
- There are a large number of citrus growers, but a small number of processors.
- Domestic citrus is seasonal, although the season can be extended by the use of early to late season varieties.
- Trend toward consolidation at growing and processing levels as well as supply and distribution chain.
- Year-round supply and distribution from a variety of domestic and foreign product sources.

Source: Information sources for this table are given at the end of this appendix.

Table G-21c
Citrus fruit: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(million dollars)*	60	60	60	60	60
Cuban imports (*million dollars*)	0	0	0	0	0
Cuban exports (*million dollars*)	35	40	47	50	55
Netherlands (*million dollars*)	23	25	26	26	([1])
Germany (*million dollars*)	7	8	10	6	([1])
France *(million dollars)*	3	5	8	8	([1])
Apparent Cuban consumption (*million dollars*)	25	20	13	10	4
Ratio of exports to production (*percent*)	58	67	78	83	92
Ratio of imports to apparent consumption (*percent*)	0	0	0	0	0
Employment (*thousands*)	44	44	44	44	44
Number of establishments (*hundreds*)	12	12	12	12	12

[1] Not available.
Source: Information sources for this table are given at the end of this appendix.

Table G-21d
Citrus fruit: Cuban sector characteristics

Cuban position in world market:
- Cuba share of world production, consumption, exports and imports is negligible.

Factors affecting international competitiveness:
- Favorable climate and land available to plant citrus trees, and absence of freezing weather.
- Low production costs, low labor wages and abundant labor force.
- Poor infrastructure (roads, ports, electricity, water, and storage and handling facilities) and shortages of fuel, pesticides, fertilizers, and management experience.
- Lack of Investment capital to develop high-quality fruit and processing facilities.

Government programs & regulation:
- Industry is centrally directed by Cubafruit, a Cuban government monopoly which oversees all aspects of production, marketing, and exports.
- All land is owned by the National Citrus Corporation, the Cuban government monopoly.
- Most citrus is grown on state farms and production cooperatives.

Trade measures:
- Cuba's applied MFN tariff on fresh citrus is 10 percent, and on processed 15 percent.

Special sector characteristics:
- Cuba is similar to Florida in its climate and fruit produced, although the season begins earlier.
- Cuban citrus growing is highly concentrated with about 60 percent coming from 1 plantation. There are extremely large-scale grove operations including the world's largest citrus grove.
- Joint ventures with foreign companies have helped improve Cuban fruit quality and marketing potential in world citrus markets.

Source: Information sources for this table are given at the end of this appendix.

Table G-22a
Sugar: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)[1]	3,608	3,317	3,170	3,543	3,696
U.S. imports (*million dollars*)[2]	561	774	728	529	306
Dominican Republic (*million dollars*)	79	100	102	71	35
Brazil (*million dollars*)	68	99	85	59	29
Philippines (*million dollars*)	49	70	70	52	25
U.S. exports (*million dollars*)[3]	187	126	61	44	45
Apparent U.S. consumption (*million dollars*)[1]	4,717	5,511	5,485	5,036	5,408
Ratio of exports to production (*percent*)	7	5	3	2	3
Ratio of imports to apparent consumption (*percent*)	20	29	28	22	18
Land in cane production (*thousand acres*)	962	954	907	932	952
Cane production yield (*tons per acre*)	32.5	32.5	32.7	34.9	36
Land in beet production (*thousand acres*)	1,445	1,368	1,459	1,498	1,563
Beet production yield (*tons per acre*)	20	20	21	22	22
Number of establishments[4]	86	79	79	76	75

[1] Valued at domestic price for raw sugar.

[2] Valued at the world price for raw sugar plus in-quota tariff plus transportation costs.

[3] Valued at world price for raw sugar.

[4] "Establishments" refers only to mills, refineries, and beet processing plants.

Note.—Sector covered under HTS 1701.11 - 1701.99.

Source: Information sources for this table are given at the end of this appendix.

Table G-22b
Sugar: U.S. sector characteristics

U.S. position in world market:
- Share of world production (6%, rising); consumption (7%, rising); exports (0%, stable); imports (5%, falling).
- The United States is a net importer of sugar and was the world's fourth largest importer in 1999.

Factors affecting international competitiveness:
- U.S. competitiveness impacted by climate, land cost and availability, water cost and availability, cane and beet quality, mechanization, and labor and environmental standards.
- Internal infrastructure (mills, refineries, processing plants, irrigation systems, transportation, storage facilities).

Government programs & regulations:
- Loan rate program; marketing assessments; information reporting.
- Refined sugar and sugar-containing product re-export program.

Trade measures:
- TRQ scheduled under WTO and NAFTA; sugar re-export program; polyhydric alcohol program.
- Low in-quota tariff rates (6% ad valorem); prohibitive over-quota tariff rates (242% ad valorem); special value-based safeguard tariffs.

Special sector characteristics:
- 100 percent mechanized harvesting; high yields; low cost of production; sugar cane share of total U.S. production, 47% and sugar beet share 53% in 1999.
- Refined sugar is marketed domestically to industrial users, wholesalers, hotels, restaurants, grocery stores.
- Refined sugar is not marketed internationally, except through the re-export program.

Source: Information sources for this table are given at the end of this appendix.

Table G-22c
Sugar: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)[1]	1,045	1,231	1,111	782	599
Cuban imports (*million dollars*)	0	0	0	0	0
Cuban exports (*million dollars*)[1]	844	1,043	925	612	485
Russia (*million dollars*)[1]	([2])	499	378	376	333
China (*million dollars*)[1]	([2])	118	99	78	45
Japan (*million dollars*)[1]	([2])	32	62	0	20
Apparent Cuban consumption (*million dollars*)[1]	170	165	200	178	107
Ratio of exports to production (*percent*)	81	85	83	78	81
Ratio of imports to apparent consumption (*percent*)	0	0	0	0	0
Employment (*thousands*)	500	500	500	500	500
Number of establishments[3]	172	172	172	172	172
Land in cane production (*thousand acres*)[4]	2,908	3,148	3,282	2,718	2,362
Cane production yield (*metric tons/acre*)	11.3	13.4	12.9	12.1	14.6

[1] Valued at world price for raw sugar.

2 Not available.

[3] Refers to 156 mills and 16 refineries. In 1999, approximately 110 of the 156 mills were in operation.

[4] Calculated from industry sources.

Source: Information sources for this table are given at the end of this appendix.

Table G-22d
Sugar: Cuban sector characteristics

Cuban position in world market:

- Cuban share of world: production (3%, unstable); consumption (1%, steady); exports (9%, steady).
- Cuba has fallen from first in world production and world exports in 1959 to tenth in production and fifth in exports in 1999. Cuba has lost 24 percent of its world export market share since 1959.

Factors affecting international competitiveness:

- International competitiveness weakened by obsolete mills and refineries; poorly maintained equipment; labor shortages; shortage of fertilizer, pesticides, and herbicides; and insufficient field irrigation.

Government programs & regulation:

- Ministry of Sugar controls production and processing of sugarcane for state farms and cooperatives.
- Government determined prices for sugar.
- All sugar is marketed to the state; consumer rationing; private sugar sales prohibited.
- State trading enterprise, CUBAZUCAR, controls all foreign sales of sugar.

Trade measures:

- Relatively low tariffs–40% bound with WTO, 15% applied on raw and refined sugar.
- Much sugar trade involves barter arrangements (e.g., oil with Russia, rice with China and Vietnam).

Special sector characteristics:

- Increase in plants producing derivatives from sugar, including alcohol, yeast, bagasse, animal feed, dextrose, pulp and paper.
- CUBAZUCAR currently refuses importation of foreign sugar.

Source: Information sources for this table are given at the end of this appendix.

Table G-23a
Distilled spirits: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	3,827	3,673	3,905	3,983	4,063
U.S. imports (*million dollars*)	1,629	1,843	1,968	2,086	2,383
United Kingdom (*million dollars*)	477	514	530	560	605
France (*million dollars*)	313	368	401	460	522
Canada (*million dollars*)	307	341	344	332	378
U.S. exports (*million dollars*)	390	392	390	395	440
Japan (*million dollars*)	94	75	72	84	77
Germany (*million dollars*)	49	54	57	50	70
Canada (*million dollars*)	29	34	43	40	38
Apparent U.S. consumption (*million dollars*)	5,066	5,124	5,483	5,674	6,006
Ratio of exports to production (*percent*)	10	11	10	10	11
Ratio of imports to apparent consumption (*percent*)	32	36	36	37	40
Employment (*thousands*)	7	6	6	6	6
Number of establishments	66	63	60	57	57

Note.—Sector covered under HTS 2208.

Source: Information sources for this table are given at the end of this appendix.

Table G-23b
Distilled spirits: U.S. sector characteristics

U.S. position in world market:

- The United States ranks among the world's leading producers and consumers of distilled spirits and is the world's leading importer of distilled spirits.

Factors affecting international competitiveness:

- U.S. competitiveness based on strongly branded, internationally-known products.
- U.S. industry closely integrated into global spirits industry, dominated by a few large multinational companies.

Government programs & regulations:

- The distilled spirit industry is highly regulated at the Federal, State and local levels on most aspects of the industry including production, sales, and distribution of products.

Trade measures:

- No tariffs on most distilled spirits except for certain categories of rum.

Special sector characteristics:

- U.S. producers are firmly integrated into the multinational distilled spirits industry which is dominated by large transnational companies.

Source: Information sources for this table are given at the end of this appendix.

Table G-23c
Distilled spirits: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*thousand hectoliters pure alcohol*)	206	206	206	206	206
Cuban imports (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban exports (*million dollars*)	([1])	([1])	([1])	100	([1])
Spain (*thousand cases*)	([1])	([1])	([1])	220	([1])
Italy (*thousand cases*)	([1])	([1])	([1])	150	([1])
Germany (*thousand cases*)	([1])	([1])	([1])	60	([1])
Per Capita Cuban consumption (*liters pure alcohol*)	2.5	2.7	2.7	2.3	([1])
Ratio of exports to production (*percent*)	([1])	([1])	([1])	50	([1])
Ratio of imports to apparent consumption (*percent*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-23d
Distilled spirits: Cuban sector characteristics

Cuban position in world market:
- Cuba ranks as the world's 22 largest producer of distilled spirits.

Factors affecting international competitiveness:
- Cuban exports are increasing to major European export markets, challenging dominant Puerto Rican world producer and exporter, Bacardi.
- Low cost inputs, especially sugar and labor.

Government programs & regulation:
- Production of rum is controlled by the State-owned entity Havana Rum and Liquors.

Special sector characteristics:
- Rum and *aguardiente*, both distilled from sugar cane, are the principal spirits produced by Cuba.
- Cuban rum has worldwide exposure and marketing access through global producer/supplier Pernod Ricard, the sole international distributor of Cuban rum.
- Domestic sales of rum and *aguardiente* to tourists and in dollar stores are rising rapidly.

Source: Information sources for this table are given at the end of this appendix.

Table G-24a
Cigars: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million units*)	13,469	4,033	3,800	4,461	23,892
U.S. imports (*million dollars*)	93	187	401	358	278
Dominican Republic (*million dollars*)	53	106	231	230	180
Honduras (*million dollars*)	21	41	75	54	48
Jamaica (*million dollars*)	8	9	12	32	11
U.S. exports (*million dollars*)	7	11	16	20	19
Canada (*million dollars*)	([3])	1	2	3	3
Turkey (*million dollars*)	1	([3])	1	1	2
Honduras (*million dollars*)	0	([3])	([3])	1	1
Apparent U.S. consumption (*million dollars*)	11,133	1,393	1,532	1,684	21,434
Ratio of exports to production (*percent*)	10.7	0.9	1.4	1.5	21.6
Ratio of imports to apparent consumption (*percent*)	18.2	13.4	26.2	21.3	219.4
Employment (*thousands*)	2.6	2.9	3.8	3.8	3.8
Number of establishments (*hundreds*)	38	38	38	38	38

[1] Fiscal year Oct. 1, 1994 - Sept. 31, 1995.

[2] Jan. 1- Sept. 31, 1999.

[3] Under $500,000.

Note.—Sector covered under HTS 2402.10.

Source: Information sources for this table are given at the end of this appendix.

Table G-24b
Cigars: U.S. sector characteristics

U.S. position in world market:
- U.S. share of world production (over 30% stable), consumption (40% stable).
- The United States is the world's largest producer, consumer, and importer of cigars.

Factors affecting international competitiveness:
- Over 98% of U.S. production is consumed in the domestic market.

Government programs & regulations:
- Federal and local taxes are increasing on cigars to match rates on cigarettes, labeling requirements are also required.

Trade measures:
- Relatively low tariffs.
- Highest tariffs are levied on small cigars, a major segment of U.S. production.

Special sector characteristics:
- Nearly all domestic production of cigars are machine-made, while imports comprise mainly premium hand-rolled cigars.
- Strong trend of consolidation of U.S. producers with two out of the top three U.S. manufacturers owned by European multinational producers.
- Most domestic production of cigars are consumed in the United States.

Source: Information sources for this table are given at the end of this appendix.

Table G-24c
Tobacco (cigars): Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban tobacco production (*million pounds*)	*59*	*59*	*59*	*59*	*59*
Cuban imports (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban cigar exports (*million units*)	*55*	*70*	100	126	150
Spain (*million dollars*)	31	27	33	39	([1])
France (*million dollars*)	8	10	12	15	([1])
United Kingdom (*million dollars*)	4	*5*	11	10	([1])
Apparent Cuban consumption (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Ratio of exports to production (*percent*)	90	90	90	90	90
Ratio of imports to apparent consumption (*percent*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	100	100	100	100	100
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-24d
Tobacco (cigars): Cuban sector characteristics

Cuban position in world market:

- Cuban tobacco production is a small fraction of world production, but Cuba is the second largest producer of premium hand-rolled cigars (after the Dominican Republic).
- Strong demand for Cuban cigars in Europe and other world markets and skyrocketing prices have fostered increased investment and triple-digit growth rates of production during 1995-1999.

Factors affecting international competitiveness:

- Temperate climate and ideal soil.
- Regarded as the highest quality cigars produced in the world.

Government programs & regulation:

- Habanos produces most of the major cigar brands manufactured in Cuba.

Special sector characteristics:

- As much as 87% of Cuba's tobacco crop is grown on small farms.
- The French/Spanish Tobacco conglomerate Altadis owns 50% of the Cuban state monopoly Habanos S.A.
- The high demand and market preference for Cuban cigars in major markets has led to a production of counterfeit products manufactured inside and outside Cuba that are major concern for the Cuban Government.

Source: Information sources for this table are given at the end of this appendix.

Table G-25a
Seafood: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	6,945	6,620	7,521	6,773	6,730
U.S. imports (*million dollars*)	6,682	6,598	7,616	8,015	8,850
Canada (*million dollars*)	1,118	1,149	1,302	1,402	1,709
Thailand (*million dollars*)	1,217	1,102	1,156	1,381	1,546
Ecuador (*million dollars*)	557	499	715	697	549
U.S. exports (*million dollars*)	3,137	2,892	2,589	2,145	2,720
Japan (*million dollars*)	1,908	1,610	1,290	904	1,164
Canada (*million dollars*)	438	447	426	435	566
Korea (*million dollars*)	123	144	124	93	176
Apparent U.S. consumption (*million dollars*)	10,490	10,326	12,548	12,643	12,860
Ratio of exports to production (*percent*)	45	44	34	32	40
Ratio of imports to apparent consumption (*percent*)	64	64	61	63	69
Employment (*thousands*)	84.8	85.1	83.2	280	([1])
Number of establishments (*thousands*)	10.1	8.5	8.0	[2]7.5	([1])

[1] Not available.

[2] Estimated by the Commission.

Note.—Sector covered under HTS 03 and 1604 - 1605.

Source: Information sources for this table are given at the end of this appendix.

Table G-25b
Seafood: U.S. sector characteristics

U.S. position in world market:

- U.S. share of world production and consumption (6%, stable); exports (6%, falling); imports (12%, falling).

Factors affecting international competitiveness:

- Significant resource abundance advantage.
- Modern technology in harvesting and processing; skilled labor; main market is domestic.
- Excellent infrastructure (storage, transport, distribution) eases marketing of high-value, fresh products; high quality standards boost consumer confidence and demand.

Government programs & regulations:

- Fishing regulated by trip limits, other restrictions.
- Expanding foreign market promotions by U.S. Departments of Commerce and Agriculture.
- No price controls or mandatory product inspection programs.

Trade measures:

- Fisheries covered under "industrial" provisions of multilateral trade agreements.
- Low tariff protection except for canned tuna; stringent food safety regulations.

Source: Information sources for this table are given at the end of this appendix.

Table G-25c
Seafood: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	175	162	133	100	([1])
Cuban imports (*million dollars*)	27	22	17	24	([1])
Cuban exports (*million dollars*)	127	130	98	98	([1])
Spain (*million dollars*)	27	44	41	([1])	([1])
Japan (*million dollars*)	38	37	27	([1])	([1])
France (*million dollars*)	33	17	15	([1])	([1])
Apparent Cuban consumption (*million dollars*)	76	53	52	26	([1])
Ratio of exports to production (*percent*)	72	81	73	98	([1])
Ratio of imports to apparent consumption (*percent*)	36	41	32	92	([1])
Employment (*thousands*)	34	34	34	34	34
Number of establishments (*hundreds*)	21	21	21	21	29

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-25d
Seafood: Cuban sector characteristics

Cuban position in world market:
- Cuban share of world production, consumption, and trade negligible.

Factors affecting international competitiveness:
- Favorable resource abundance and good management practices.
- Lack of economies of scale and modernization of harvesting and processing technology.
- Weak infrastructure inhibits wide consumption of fresh seafood (which is more valuable than cured or canned).
- Processing facilities are old but subject to recent improvements in health and safety regulation, which raises product quality.

Government programs & regulation:
- Cuba maintains strict control over fishing vessels, for security (emigration) reasons, as well as to effectively manage its marine and freshwater resources.
- Active encouragement of joint ventures, export promotion.

Trade measures:
- Relatively low tariffs.
- Strict health & safety-related standards applied to imported seafood.

Special sector characteristics:
- Sharp income disparity between large-scale harvesting/processing and local, artisan fishing.
- Offshore harvesters reduce fish availability for inshore fishermen, and enjoy great economies of scale.
- Freshwater fisheries (e.g., silver carp) are becoming very important supplies for domestic consumption.

Source: Information sources for this table are given at the end of this appendix.

Table G-26a
Fertilizers: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	9,480	9,670	9,865	9,900	10,000
U.S. imports (*million dollars*)	1,571	1,519	1,423	1,598	([1])
Canada (*million dollars*)	1,011	995	1,138	1,221	([1])
Former Soviet Union (*million dollars*)	85	155	48	71	([1])
Qatar (*million dollars*)	0	7	12	50	([1])
U.S. exports (*million dollars*)	3,501	3,349	3,303	3,515	([1])
China (*million dollars*)	1,316	1,071	1,124	1,125	([1])
India (*million dollars*)	266	93	277	322	([1])
Australia (*million dollars*)	216	284	252	269	([1])
Apparent U.S. consumption (*million dollars*)	7,550	7,840	7,985	7,983	10,000
Ratio of exports to production (*percent*)	37	35	33	35	([1])
Ratio of imports to apparent consumption (*percent*)	21	19	18	20	([1])
Employment (*thousands*)	37	37	37	37	37
Number of establishments (*hundreds*)	350	350	350	350	350

[1] Not available.

Note.—Sector covered under SITC 56.

Source: Information sources for this table are given at the end of this appendix.

Table G-26b
Fertilizers: U.S. sector characteristics

U.S. position in world market:

- The U.S. industry is the largest global producer and consumer of fertilizers.

Factors affecting international competitiveness:

- U.S. international competitiveness based on strong marketing capability for phosphate fertilizers, strong research and development, and quality control capability.
- Extensive national and international marketing capability using company representatives, distribution outlets, and trade associations.

Government programs & regulations:

- Environmental regulations are becoming increasingly important.

Trade measures:

- U.S. fertilizer imports enter at a duty rate of Free.

Special sector characteristics:

- U.S. firms are becoming more important in research and development, while progressively producing overseas.
- Requires large financial outlays for research and development, production, and marketing.

Source: Information sources for this table are given at the end of this appendix.

Table G-26c
Fertilizers: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban imports (*million dollars*)	*57*	*45*	*49*	24	([1])
Former Soviet Union (*million dollars*)	0	3	3	10	([1])
Tunisia *(million dollars)*	18	13	8	6	([1])
Canada (*million dollars*)	17	11	6	2	([1])
Cuban exports (*million dollars*)	0	0	0	0	([1])
Apparent Cuban consumption (*million dollars*)	*57*	*45*	*49*	24	([1])
Ratio of exports to production (*percent*)	([1])	([1])	([1])	([1])	([1])
Ratio of imports to apparent consumption (*percent*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Note.—Sector covered under SITC 56.

Source: Information sources for this table are given at the end of this appendix.

Table G-26d
Fertilizers: Cuban sector characteristics

Cuban position in world market:
- Cuban shares of world production and consumption are negligible. Imports are declining.

Factors affecting international competitiveness:
- Cuba is not internationally competitiveness in the production of fertilizers.

Government programs & regulation:
- The Cuban fertilizer industry is owned and operated by the state.

Special sector characteristics:
- The Cuban fertilizer industry is currently based on imported finished fertilizers and intermediate fertilizer materials.

Source: Information sources for this table are given at the end of this appendix.

Table G-27a
Pesticides: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	4,580	4,900	5,000	5,030	5,120
U.S. imports (*million dollars*)	1,028	1,159	1,194	1,288	1,179
Germany (*million dollars*)	162	209	172	285	203
United Kingdom (*million dollars*)	113	114	132	150	195
France (*million dollars*)	80	133	191	152	109
U.S. exports (*million dollars*)	2,436	3,134	3,524	3,550	3,370
Canada (*million dollars*)	532	521	620	683	630
Brazil (*million dollars*)	228	278	375	406	354
France (*million dollars*)	79	202	219	264	278
Apparent U.S. consumption (*million dollars*)	3,172	2,925	2,670	2,768	2,929
Ratio of exports to production (*percent*)	53	64	70	71	66
Ratio of imports to apparent consumption (*percent*)	32	40	45	46	40
Employment (*thousands*)	20	20	20	20	20
Number of establishments	59	59	59	59	59

Note.—Sector covered by HTS 1302.11.00 and selected HTS items in chapter 29 and chapter 30.

Source: Information sources for this table are given at the end of this appendix.

Table G-27b
Pesticides: U.S. sector characteristics

U.S. position in world market:
- The United States has large share of world pesticide production, consumption, and trade.
- U.S. firms are becoming more important in research and development, while producing more overseas.

Factors affecting international competitiveness:
- U.S. international competitiveness in the production of pesticides is based on advanced production technology and oversees production sites lower costs, strong marketing capability, strong research and development, and quality control capability.
- Extensive national and international marketing capability using company representatives.

Government programs & regulations:
- Sales of product on the U.S. market requires EPA approval.
- Environmental regulations becoming important.

Trade measures:
- Introducing zero for zero trade reductions on many finished products and chemical intermediates.
- EPA regulations considered by some as a trade barrier.

Special sector characteristics:
- Pesticide industry is characterized by a small number of large multinational firms.
- Large financial outlays required in the industry for research and development, production, and marketing.

Source: Information sources for this table are given at the end of this appendix.

Table G-27c
Pesticides: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban imports (*million dollars*)	53	48	46	30	([1])
Europe (*million dollars*)	24	14	12	20	([1])
Columbia (*million dollars*)	3	8	7	8	([1])
South Africa (*million dollars*)	14	16	16	0	([1])
Cuban exports (*million dollars*)	([2])	1	2	1	([1])
Brazil (*million dollars*)	([2])	([2])	1	1	([1])
Nicaragua (*million dollars*)	([2])	1	([2])	([2])	([1])
Bolivia (*million dollars*)	([2])	([2])	([2])	([2])	([1])
Apparent Cuban consumption (*million dollars*)	53	47	44	29	([1])
Ratio of exports to production (*percent*)	([1])	([1])	([1])	([1])	([1])
Ratio of imports to apparent consumption (*percent*)	100	102	104	103	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

[2] Less than $500,000.

Source: Information sources for this table are given at the end of this appendix.

Table G-27d
Pesticides: Cuban sector characteristics

Cuban position in world market:
- Cuban shares of world production and consumption are negligible.

Factors affecting international competitiveness:
- The Cuban pesticide industry is not internationally competitive.

Government programs & regulation:
- State control of sales and marketing of pesticides.

Source: Information sources for this table are given at the end of this appendix.

Table G-28a
Pharmaceutical products: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	60,300	63,000	67,400	74,140	81,576
U.S. imports (*million dollars*)	8,677	11,195	14,193	17,952	23,781
Ireland (*million dollars*)	633	1,373	1,885	3,222	5,183
United Kingdom (*million dollars*)	1,657	2,134	2,515	2,963	3,964
Germany (*million dollars*)	1,208	1,366	2,334	3,507	3,810
U.S. exports (*million dollars*)	8,092	8,548	10,345	11,956	13,681
Japan (*million dollars*)	562	683	756	635	681
Canada (*million dollars*)	387	469	560	685	649
Netherlands *(million dollars*)	148	189	417	637	616
Apparent U.S. consumption (*million dollars*)	60,885	65,647	71,248	80,136	91,676
Ratio of exports to production (*percent*)	13.4	13.6	15.3	16.1	16.9
Ratio of imports to apparent consumption (*percent*)	14.3	17.1	19.9	22.4	25.9
Employment (*thousands*)	174	203	205	208	208
Number of establishments (*hundreds*)	7	7	7	7	7

Note.—Sector covered by HTS 1302.11.00 and selected HTS items in chapter 29 and chapter 30.

Source: Information sources for this table are given at the end of this appendix.

Table G-28b
Pharmaceutical products: U.S. sector characteristics

U.S. position in world market:
- The United States has a large share of world production, consumption, and trade.

Factors affecting international competitiveness:
- U.S. international competitiveness in the production of pharmaceutical products is based on advanced production technology and oversees production sites lower costs, strong marketing, research, development, and quality control capability.
- Extensive national and international marketing capability using company representatives.

Government programs & regulations:
- Sales in the U.S. market requires FDA approval.
- Medicare and medicaid regulations becoming important.

Trade measures:
- Low U.S. tariffs on many imported pharmaceutical products.

Special sector characteristics:
- The world pharmaceutical industry is a multinational industry, with a small number of large producing firms.
- U.S. is becoming more important in research and development, while production is shifting away from the United States.
- Pharmaceutical products require large financial outlays for research and development, production, and marketing.
- Two separate sectors, patented products and generic products.

Source: Information sources for this table are given at the end of this appendix.

Table G-28c
Pharmaceutical products: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	50	50	50	50	50
Cuban imports (*million dollars*)	31	27	23	29	30
China (*million dollars*)	20	11	13	13	14
Canada (*million dollars*)	([1])	6	8	([1])	([1])
Italy (*million dollars*)	([1])	6	6	([1])	([1])
Cuban exports (*million dollars*)	32	39	37	33	35
Colombia (*million dollars*)	14	12	11	7	7
Argentina (*million dollars*)	4	7	2	5	5
Brazil (*million dollars*)	13	20	14	7	8
Apparent Cuban consumption (*million dollars*)	49	38	36	46	45
Ratio of exports to production (*percent*)	64	78	74	66	70
Ratio of imports to apparent consumption (*percent*)	63	71	64	63	67
Employment (*thousands*)	5	5	5	5	5
Number of establishments (*hundreds*)	2	2	2	2	2

[1] Less than $500,000.

Source: Information sources for this table are given at the end of this appendix.

Table G-28d
Pharmaceutical products: Cuban sector characteristics

Cuban position in world market:
- Cuban shares of world production and consumption are negligible.

Factors affecting international competitiveness:
- Proximity to major markets (in terms of cost reduction) is not crucial, relative to production, development, and marketing costs for any country.

Government programs & regulation:
- Cuba has a national health program that controls all aspects of health care, including pharmaceutical pricing, development and distribution.
- International marketing is conducted by a government agency.

Trade measures:
- Cuba reportedly has strict regulations for imported products.

Special sector characteristics:
- Cuban biotechnology industry is well developed.

Source: Information sources for this table are given at the end of this appendix.

Table G-29a
Textiles: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	([1])	([1])	([1])	([1])	([1])
U.S. imports (*million dollars*)	10,409	10,584	12,302	13,215	13,845
Canada (*million dollars*)	1,119	1,332	1,501	1,640	1,767
China (*million dollars*)	1,144	1,037	1,362	1,427	1,580
Mexico (*million dollars*)	827	952	1,188	1,257	1,383
U.S. exports (*million dollars*)	8,551	9,165	10,215	10,019	10,170
Mexico (*million dollars*)	1,012	1,320	1,607	2,051	2,965
Canada (*million dollars*)	2,169	2,356	2,708	2,810	2,756
United Kingdom (*million dollars*)	372	426	480	403	347
Apparent U.S. consumption (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	664	626	616	554	562
Number of establishments (*number*)	15,500	15,500	16,300	16,000	16,000

[1] Not available.

Note.—Sector covered under HTS 5002.0000 through 6002.9990; 6301.1000 through 6310.9020.

Source: Information sources for this table are given at the end of this appendix.

Table G-29b
Textiles: U.S. sector characteristics

U.S. position in world market:

- U.S. has 8% share of world imports, 7% of exports.

Factors affecting international competitiveness:

- Large-scale investment in technology has contributed to the industry's high productivity in producing high-volume commodity goods and in printing, dyeing, and finishing operations.
- Shrinking labor availability and rising production costs.
- Well-developed infrastructure (electricity, water availability).
- Rising investment in information technology has improved manufacturing flexibility.

Government programs & regulations:

- Environmental and workplace regulations.

Trade measures:

- Tariffs and quotas to be phased out by 2005.
- Preferential trade programs with Mexico and Caribbean Basin countries.

Special sector characteristics:

- The majority of exports go to Mexico and Caribbean Basin countries for apparel assembly.
- Some textile producers are establishing foreign manufacturing operations (fiber, yarn, and fabric production) to service apparel customers in Mexico and the Caribbean.
- Industry restructuring and consolidation.
- Increasing number of strategic alliances with apparel between retailers and manufacturers.

Source: Information sources for this table are given at the end of this appendix.

Table G-29c
Textiles: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban imports (*million dollars*)	43	42	46	28	16
China (*million dollars*)	9	5	9	8	14
Mexico (*million dollars*)	17	17	17	0	([1])
Spain (*million dollars*)	12	10	9	9	([1])
Cuban exports (*million dollars*)	1	2	2	2	1
Canada (*million dollars*)	([2])	([2])	([2])	1	1
Italy (*million dollars*)	([2])	([2])	([2])	1	([1])
Mexico (*million dollars*)	1	1	([2])	([2])	([1])
Apparent Cuban consumption (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments	25	25	25	25	25

[1] Not available.

[2] Less than $500,000.

Source: Information sources for this table are given at the end of this appendix.

Table G-29d
Textiles: Cuban sector characteristics

Cuban position in world market:
- Cuba's share of world production, consumption, and trade is less than 1%.

Factors affecting international competitiveness:
- Cuba competitiveness based on relatively low wages and an educated workforce.

Government programs & regulation:
- Subsidies for textiles and apparel production.
- Arbitrary government intervention/decision making.

Trade measures:
- Tariffs on imported textiles are generally high.

Special sector characteristics:
- More textile production capability than neighboring Caribbean countries, but much of the machinery is outdated or poorly maintained and capacity is greatly underutilized.
- Lack of hard currency and sufficient financing hamper production quality, efficiency, and cost-effectiveness.
- Highly dependent on imported raw materials for production.

Source: Information sources for this table are given at the end of this appendix.

Table G-30a
Apparel: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	55,300	54,660	54,990	58,000	58,400
U.S. imports (*million dollars*)	39,665	41,684	48,492	53,874	56,565
Mexico (*million dollars*)	2,876	3,850	5,350	6,812	7,846
China (*million dollars*)	5,895	6,340	7,450	7,180	7,399
Hong Kong (*million dollars*)	4,342	3,998	4,028	4,494	4,343
U.S. exports (million dollars)	6,659	7,521	8,679	8,801	8,274
Mexico (*million dollars*)	1,378	1,709	2,233	2,648	2,555
Dominican Republic (*million dollars*)	800	867	1,090	1,103	1,046
Honduras (*million dollars*)	405	633	807	1,004	1,039
Apparent U.S. consumption	88,306	88,823	94,803	103,073	106,691
Ratio of exports to production (*percent*)	12	14	16	15	14
Ratio of imports to apparent consumption (*percent*)	45	47	51	52	53
Employment (*thousands*)	936	868	824	763	685
Number of establishments	18,077	17,800	17,600	17,500	17,400

Note.—Sector covered under HTS 6101.1000 through 6217.9090

Source: Information sources for this table are given at the end of this appendix.

Table G-30b
Apparel: U.S. sector characteristics

U.S. position in world market:

- The United States is the world's leading individual country importer of apparel (20%, rising) and the world's 11th largest exporter of apparel (3%, falling).

Factors affecting international competitiveness:

- U.S. competitiveness based on quality (fabric durability, hand, design), pricing, styling, and design, and investment in information technology.
- Growing importance of quick response manufacturing and speed to market and of customer service.
- Strong appeal of U.S. goods and brand names.

Trade measures:

- Relatively high tariffs and quotas (to be eliminated by 2005 under the WTO Agreement on Textiles and Clothing).
- Preferential trade programs: NAFTA and the Caribbean Basin Trade Partnership Act.

Special sector characteristics:

- U. S. producers of apparel increasing assembly in Mexico and the Caribbean and Central American countries.
- Passage of the Caribbean Basin Trade Partnership Act seen as important to U.S. industry.
- Industry restructuring-growing industry consolidation.
- Strengthening of ties and growth of strategic alliances with major retailers.

Source: Information sources for this table are given at the end of this appendix.

Table G-30c
Apparel: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production[1] (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban imports (*million dollars*)	15	18	19	27	11
China (*million dollars*)	2	2	3	9	9
Spain (*million dollars*)	3	4	5	6	([2])
Italy (*million dollars*)	4	4	3	4	([2])
Cuban exports (*million dollars*)	2	2	1	3	1
Spain (*million dollars*)	1	1	1	2	([2])
Canada (*million dollars*)	1	1	.5	1	1
Apparent Cuban consumption (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Employment (*thousands*)	([2])	([2])	([2])	([2])	([2])
Number of establishments	190	190	190	190	190

[1] It is very difficult to estimate apparel production in Cuba. Cuba experts report that industry data collection is inconsistent and unreliable. No meaningful estimates of the dollar value of apparel production could be made.

[2] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-30d
Apparel: Cuban sector characteristics

Cuban position in world market:
- Small producer with greatly underutilized capacity.

Factors affecting international competitiveness:
- Cuban competitiveness is based on labor costs and consistent quality.

Government programs & regulation:
- Government subsidies on apparel and textile production.
- Industry restructuring to break up larger enterprises into smaller units to focus on high profit operations.

Trade measures:
- High tariffs.

Special sector characteristics:
- Significant spinning and weaving capacity that is larger than its Caribbean neighbors.
- Cuba has potential to expand production substantially in the future.

Source: Information sources for this table are given at the end of this appendix.

Table G-31a
Steel: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	66,300	66,300	68,700	65,900	62,600
U.S. imports (*million dollars*)	11,786	12,756	13,602	16,434	12,749
Canada (*million dollars*)	2,450	2,543	2,488	2,512	2,375
Japan (*million dollars*)	1,540	1,418	1,605	2,914	1,461
Mexico (*million dollars*)	865	1,029	1,206	1,143	1,099
Germany (*million dollars*)	901	1,175	1,158	1,029	864
U.S. exports (*million dollars*)	4,665	4,076	4,843	4,636	4,291
Canada (*million dollars*)	1,694	1,697	2,386	2,226	2,254
Mexico (*million dollars*)	647	833	967	1,019	1,019
United Kingdom (*million dollars*)	85	97	110	102	80
Korea (*million dollars*)	249	98	51	34	32
Apparent U.S. consumption (*million dollars*)	73,421	74,980	77,459	77,700	71,058
Ratio of exports to production (*percent*)	7.1	6.2	7.1	7.0	6.9
Ratio of imports to apparent consumption (*percent*)	16.1	17.0	17.6	21.2	17.9
Employment (*thousands*)	215	210	205	205	195
Number of establishments (*hundreds*)	9	9	9	9	9

Note.—Sector covered under HTS 7206.10 through 7306.90, excluding 7301.20 and 7303.00.

Source: Information sources for this table are given at the end of this appendix.

Table G-31b
Steel: U.S. sector characteristics

U.S. position in world market:

- The United States is the largest steel importing and consuming country in the world (17% of world consumption), and the second largest (after China) steel producing country (12% of world steel production.
- While steel production and consumption in the United States have been increasing, the U.S. position in the world has been slowly declining due to more rapid growth in other parts of the world.

Factors affecting international competitiveness:

- U.S. industry benefits from proximity to its domestic markets and those of its NAFTA partners, as well as its sources of major raw materials.
- Products are marketed through direct sales and through well established networks of steel distributors.
- U.S. steel industry has higher labor costs relative to most major steel exporting nations.

Government programs & regulations:

- Strict environmental control measures are vigorously enforced.

Trade measures:

- Anti-dumping and CVD duties apply to certain products from some countries.
- Duties are being phased out and will be eliminated 2004 (except for column 2 duties).

Source: Information sources for this table are given at the end of this appendix.

Table G-31c
Steel: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	53	59	87	72	77
Cuban imports (*million dollars*)	90	138	108	117	([1])
Spain (*million dollars*)	47	68	33	31	([1])
Russia (*million dollars*)	([1])	5	8	9	([1])
Mexico (*million dollars*)	9	15	8	0	([1])
Cuban exports (*million dollars*)	30	33	52	46	([1])
Colombia (*million dollars*)	3	5	13	8	1
Ecuador (*million dollars*)	8	6	0	1	([1])
Mexico (*million dollars*)	0	3	6	0	([1])
Apparent Cuban consumption (*million dollars*)	113	164	143	143	([1])
Ratio of exports to production (*percent*)	57	56	60	64	([1])
Ratio of imports to apparent consumption (*percent*)	80	84	76	82	([1])
Employment	500	500	500	500	500
Number of establishments	10	10	10	10	10

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-31d
Steel: Cuban sector characteristics

Cuban position in world market:
- Cuba's share of world production, consumption, and trade is negligible.

Factors affecting international competitiveness:
- Cuba has limited domestic raw material supply and power supply problems.
- Although equipment is fairly modern, Cuba lacks the technical capability to produce high quality steel products.

Government programs & regulation:
- Cuban steel industry is state-owned and controlled.

Trade measures:
- Cuban duties range from 2 to 10 percent ad valorem on steel products.

Special sector characteristics:
- Cuba produces a narrow range of commodity-grade steel bar products.
- Cuba's exports go to nearby Caribbean and Latin American countries.

Source: Information sources for this table are given at the end of this appendix.

Table G-32a
Primary nickel: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*metric tons*)	0	0	0	0	0
U.S. imports (*metric tons*)	120,696	115,388	121,700	122,013	111,506
Canada (*metric tons*)	43,582	47,737	47,046	52,492	45,590
Norway (*metric tons*)	19,100	24,229	23,976	21,003	22,577
Australia (*metric tons*)	12,712	14,525	14,059	15,001	14,355
Russia (*metric tons*)	31,975	17,185	25,514	22,154	12,645
U.S. exports *(metric tons)*[1]	6,116	6,677	6,144	7,376	10,490
France *(metric tons)*	1,728	1,422	1,937	3,316	7,471
Canada (*metric tons*)	2,408	2,568	1,655	464	725
Netherlands (*metric tons*)	109	171	127	892	73
Apparent U.S. consumption (*metric tons*)	114,580	108,711	115,556	114,637	101,016
Ratio of exports to production (*percent*)	(2)	(2)	(2)	(2)	(2)
Ratio of imports to apparent consumption (*percent*)	105	106	105	106	110
Employment	0	0	0	0	0
Number of establishments	0	0	0	0	0

[1] Believed to be reexports.

[2] Not applicable.

Note.—Sector covered in HTS Chapter 75.

Source: Information sources for this table are given at the end of this appendix.

Table G-32b
Primary cobalt: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*metric tons)*	0	0	0	0	0
U.S. imports (*metric tons*)	5,728	5,775	6,745	6,530	6,874
Norway (*metric tons*)	1,511	1,700	1,915	1,890	1,527
Finland (*metric tons*)	681	559	664	518	1,131
Zambia (*metric tons*)	574	1,125	1,101	1,022	877
Canada (*metric tons*)	1,008	930	924	1,042	780
U.S. exports (*metric tons*)[1]	1,142	1,472	1,054	1,100	1,126
Belgium (*metric tons*)	248	189	201	289	542
Canada (*metric tons*)	380	334	314	229	135
United Kingdom (*metric tons*)	110	119	112	28	116
Apparent U.S. consumption (*metric tons*)	4,586	4,303	5,691	5,430	5,748
Ratio of exports to production (*percent*)	(2)	(2)	(2)	(2)	(2)
Ratio of imports to apparent consumption (*percent*)	125	134	119	120	120

[1] Believed to be reexports.

[2] Not applicable.

Note.—Sector covered in HTS Chapter 81.

Source: Information sources for this table are given at the end of this appendix.

Table G-32c
Primary nickel and cobalt: U.S. sector characteristics

U.S. position in world market:

- The United States does not produce primary nickel and cobalt.
- U.S. share of world nickel and cobalt imports is 14 and 19 percent, respectively.

Trade measures:

- Because Cuban nickel and cobalt material are refined in and exported from Canada there are no U.S. tariffs and non-tariff trade barriers that would apply.

Source: Information sources for this table are given at the end of this appendix.

Table G-32d
Nickel-cobalt oxide, sinter, and sulfide: Cuban sector profile, 1995-99 (in net quantity of metal content)

Sector data	1995	1996	1997	1998	1999
Cuban production[1] (*metric tons*)	40,845	51,289	59,449	65,300	66,000
Cuban imports (*metric tons*)	0	0	0	0	0
Cuban exports[1] (*metric tons*)	37,955	55,157	59,460	68,313	67,181
North America (*metric tons*)	19,676	25,174	27,078	29,067	29,468
Europe (*metric tons*)	16,960	27,748	25,611	31,529	30,620
Asia (*net metric tons of metal*)	1,319	2,235	6,771	7,717	7,093
Apparent Cuban consumption (*metric tons*)	0	0	0	0	0
Ratio of exports to production (*percent*)	100	100	100	100	100
Ratio of imports to apparent consumption (*percent*)	([2])	([2])	([2])	([2])	([2])
Employment (*thousands*)	([3])	([3])	([3])	([3])	([3])
Number of establishments	3	3	3	3	3

[1] Because production and export data are taken from different sources, total exports do not sum exactly to total production.

[2] Not applicable.

[3] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-32e
Nickel and cobalt: Cuban sector characteristics

Cuban position in world market:

- Cuba has large reserves of high-grade nickel and cobalt for potential development.
- Cuba's large reserves of both metals are likely to become more important in both world markets.

Factors affecting international competitiveness:

- Cuban international competitiveness based on plentiful nickel and cobalt reserves, and low direct operating costs such as labor, extraction, and transportation costs.
- Cuban nickel and cobalt ore grades are considered to be high and deposits are accessible to transportation and port facilities.
- Skill level of local labor force is high due to long-time involvement by Cuba in mining.
- Labor costs in Cuba are lower than cost of labor in other major producing countries (such as New Caledonia and Western Australia).

Government programs & regulation:

- Cuba's health, safety, and environmental regulations are weak by international standards.
- Sherritt reportedly enjoys greater freedom regarding distribution and repatriation of profits of the enterprise.

Special sector characteristics:

- Nickel and cobalt produced from Cuban reserves is of a high quality that is acceptable for use in most end-use markets.
- Sherritt's mining operation in Cuba uses a high-pressure acid-leach (PAL) which is reported to achieve higher metal recoveries and to be less capital- and energy-intensive than other recovery processes.

Source: Information sources for this table are given at the end of this appendix.

Table G-33a
Machinery: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	283,595	308,629	324,460	337,438	352,961
U.S. imports (*million dollars*)	64,486	71,369	78,088	84,003	87,851
Japan (*million dollars*)	15,135	15,051	16,110	16,000	15,467
Mexico (*million dollars*)	5,449	7,285	9,176	9,834	11,228
Canada (*million dollars*)	7,991	8,805	9,406	10,116	10,605
U.S. exports (*million dollars*)	62,408	68,106	77,798	74,198	71,061
Canada (*million dollars*)	13,700	14,223	17,139	17,376	17,272
Mexico (*million dollars*)	4,943	5,706	7,583	8,642	9,447
Japan (*million dollars*)	3,512	4,066	3,979	3,263	3,424
Apparent U.S. consumption (*million dollars*)	285,673	311,892	325,350	347,243	369,750
Ratio of exports to production (*percent*)	22	22	24	22	20
Ratio of imports to apparent consumption (*percent*)	23	23	24	24	24
Employment (*thousands*)	2,067	2,115	2,168	2,206	2,140
Number of establishments (*thousands*)	5,400	5,400	5,400	5,400	5,400

Note.—Sector covered under HTS 7321, 8402(pt.), 8403-8404, 8413-8468, 8474-8485, 8501-8504(pt.), 8508-8509, 8514-8516, 8543, 8701(pt.), 8706(pt.), 8707(pt.), 8708(pt.), and 8716(pt.).

Source: Information sources for this table are given at the end of this appendix.

Table G-33b
Machinery: U.S. sector characteristics

U.S. position in world market:

- U.S. share of world production, consumption, exports, imports are significant.
- The United States is becoming less important in world markets as machinery production becomes globalized.

Factors affecting international competitiveness:

- U.S. costs of production inputs, such as engineering and assembly labor, may be higher than those of foreign competitors.
- Foreign tariff and nontariff barriers impede market access for U.S. exporters.

Government programs & regulations:

- Imports of selected products must comply with health and safety regulations.

Trade measures:

- Low tariffs on imported machinery.

Special sector characteristics:

- Machinery production requires large capital investments, long time horizons for profitability, skilled engineering labor, and proximity to inputs and customers.
- Mass produced products sold by producers; specialized machinery sold to distributors or direct to end-user.

Source: Information sources for this table are given at the end of this appendix.

Table G-33c
Machinery: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban imports (*million dollars*)	215	304	333	389	([1])
Spain (*million dollars*)	85	107	130	130	([1])
Italy (*million dollars*)	19	38	38	52	([1])
Canada (*million dollars*)	0	0	21	45	([1])
Cuban exports (*million dollars*)	([2])	([2])	([2])	1	([1])
Apparent Cuban consumption (*million dollars*)	([2])	([2])	([2])	([2])	([2])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

[2] Not applicable.

Source: Information sources for this table are given at the end of this appendix..

Table G-33d
Machinery: Cuban sector characteristics

Cuban position in world market:

- Cuban share of world production, consumption, and trade is negligible.
- Cuba has become slightly more important as a machinery consuming country, in part because of increased foreign investment.

Factors affecting international competitiveness:

- Cuba is not internationally competitive in machinery production owing to a lack of engineering expertise, limited domestic and export markets to sustain current capital investments for producing machinery, and lack of infrastructure necessary to provide customer support or financing.

Government programs & regulation:

- Policies exist to promote certain sectors/industries of the economy that will require foreign investment and/or imported machinery.
- Customers are generally enterprises owned and operated by the Cuban Government or joint ventures with foreign investors for specific projects.

Trade measures:

- Cuban tariffs on machinery range from 3-20 percent ad valorem, with many tariffs in the 10-15 percent range. Lower tariffs apply to machinery for promoted industries.

Special sector characteristics:

- Machinery manufacturing is concentrated in sugar cane combine harvesters and energy-efficient household appliances, such as refrigerators and gas stoves.

Source: Information sources for this table are given at the end of this appendix.

Table G-34a
Transportation equipment: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production *(billion dollars)*	372	371	408	444	490
U.S. imports *(billion dollars)*	114	118	127	140	167
Canada *(billion dollars)*	43	45	48	51	62
Japan *(billion dollars)*	35	33	34	36	40
Mexico *(billion dollars)*	11	15	16	17	21
U.S. exports *(billion dollars)*	76	85	99	109	106
Canada *(billion dollars)*	27	28	32	32	35
Mexico *(billion dollars)*	4	5	8	8	8
United Kingdom *(billion dollars)*	2	3	6	7	7
Apparent U.S. consumption *(billion dollars)*	409	404	437	475	551
Ratio of exports to production *(percent)*	20	23	24	25	22
Ratio of imports to apparent consumption *(percent)*	28	29	29	29	30
Employment *(thousands)*	1,790	1,785	1.845	1,892	1,884
Number of establishments *(thousands)*	3,000	3,000	3,000	3,000	3,000

Note.—Sector covered under HTS chapters 86 through 89.

Source: Information sources for this table are given at the end of this appendix.

Table G-34b
Transportation equipment: U.S. sector characteristics

U.S. position in world market:
- The U.S. shares of world production, consumption, exports, and imports are significant.
- The United States has become more important in world markets in recent years.

Factors affecting international competitiveness:
- U.S. international competitiveness is based on low production costs, and high levels of quality and certification required by motor vehicle and aircraft equipment manufacturers.

Government programs & regulations:
- Manufacturers must meet significant health and safety regulations established by Federal and State Governments.

Trade measures:
- U.S. tariffs on imported transportation equipment range from Free to 25 percent ad valorem.

Special sector characteristics:
- Transportation equipment has a significant role in the U.S. manufacturing sector.

Source: Information sources for this table are given at the end of this appendix.

Table G-34c
Transportation equipment: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(million dollars)*	([1])	([1])	([1])	([1])	([1])
Cuban imports *(million dollars)*	106	95	131	142	140
Spain *(million dollars)*	14	21	39	28	30
Canada *(million dollars)*	9	13	12	35	23
Brazil *(million dollars)*	1	1	9	17	22
Cuban exports *(million dollars)*	([1])	([1])	([1])	([1])	([1])
Apparent Cuban consumption *(million dollars)*	([1])	([1])	([1])	([1])	([1])
Employment *(thousands)*	([1])	([1])	([1])	([1])	([1])
Number of establishments *(hundreds)*	([1])	([1])	([1])	([1])	([1])

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-34d
Transportation equipment: Cuban sector characteristics

Cuban position in world market:

- Cuban shares of world production, consumption, and trade are negligible.

Factors affecting international competitiveness:

- Cuba in not internationally competitive in the production of transportation equipment.

Government programs & regulation:

- Policies exist to promote the importation of transportation equipment and assembly of transportation equipment parts (with emphasis on transportation equipment for train transport, public transportation, and automobiles and buses to support tourism).
- Customers are generally enterprises owned and operated by the Cuban Government or joint ventures with foreign investors for tourist projects.

Trade measures:

- Cuban tariffs on transportation equipment range from 5 to 25 percent ad valorem.

Special sector characteristics:

- Cuba is becoming slightly more important as a transportation equipment consuming country as Cuba seeks new transportation equipment to replace its aging public transportation equipment and also to support its growing tourist industry.
- Cuban domestic production limited to assembly of buses, motor vehicle and aircraft repair operations, and production of fishing vessels.
- Cuba's bus assembly operations are to support domestic employment, and rely on foreign designs and use imported manufactured components.

Source: Information sources for this table are given at the end of this appendix.

Table G-35a
Power generation machinery and equipment: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	7,896	8,070	8,357	8,764	9,000
U.S. imports (*million dollars*)	1,009	1,017	1,035	1,406	2,410
Canada *(million dollars)*	213	241	260	339	388
Germany (*million dollars*)	180	122	110	202	364
Japan (*million dollars*)	93	85	84	108	326
U.S. exports (*million dollars*)	3,856	3,811	4,909	4,176	4,060
Canada (*million dollars*)	170	273	341	440	492
Japan (*million dollars*)	669	363	473	359	446
United Kingdom (*million dollars*)	160	112	171	307	273
Apparent U.S. consumption (*million dollars*)	5,049	5,276	4,484	5,994	7,350
Ratio of exports to production (*percent*)	49	47	59	48	45
Ratio of imports to apparent consumption (*percent*)	20	19	23	23	33
Employment (*thousands*)	34	35	36	38	39
Number of establishments (*hundreds*)	50	50	50	50	50

Note.—Sector covered under HTS 8401(pt.), 8406(pt.), 8410, 8411(pt.), 8501(pt.), 8502(pt.), 8504(pt.), 8535(pt.), 8537(pt.), 8544(pt.), and 8546(pt.).

Source: Information sources for this table are given at the end of this appendix.

Table G-35b
Power generation machinery and equipment: U.S. sector characteristics

U.S. position in world market:
- U.S. shares of world production, consumption, and trade are significant.

Factors affecting international competitiveness:
- U.S. equipment suppliers are highly competitive worldwide and have established numerous offshore subsidiaries to increase their effectiveness in foreign markets.
- Skilled labor costs are relatively higher for the United States than key global competitors.

Government programs & regulations:
- The U.S. Government supports research and development programs aimed at increasing the energy efficiency of power generation machinery and equipment.

Trade measures:
- U.S. tariffs on imported power generation machinery are generally low (averaging below 3% in 1999).

Special sector characteristics:
- There are only a small number of global suppliers competing in markets for power generation equipment.
- Machinery and equipment is typically sold to utilities, merchant power companies, or to large companies that want to co-generate electric power as a secondary operation.

Source: Information sources for this table are given at the end of this appendix.

Table G-35c
Power generation machinery and equipment: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	(1)	(1)	(1)	(1)	(1)
Cuban imports (*million dollars*)	52	56	61	118	(2)
Spain (*million dollars*)	21	23	21	27	(2)
United Kingdom (*million dollars*)	1	1	1	26	(2)
France (*million dollars*)	5	4	6	16	(2)
Cuban exports (*million dollars*)	(1)	(1)	(1)	(1)	(1)
Apparent Cuban consumption (*million dollars*)	52	56	61	118	(2)
Ratio of exports to production (*percent*)	(1)	(1)	(1)	(1)	(1)
Ratio of imports to apparent consumption (*percent*)	100	100	100	100	100
Employment (*thousands*)	(1)	(1)	(1)	(1)	(1)
Number of establishments (*hundreds*)	(1)	(1)	(1)	(1)	(1)

[1] Negligible.

[2] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-35d
Power generation machinery and equipment: Cuban sector characteristics

Cuban position in world market:

- Cuba's production and exports of power generation machinery are negligible.
- Cuba is a minor importer and consumer in the world market.
- Cuba is becoming a more important consuming nation as domestic demand for electricity increases.

Government programs & regulation:

- The Cuban Government has been seeking modernization of its electricity generation and distribution systems, and foreign investment is being encouraged by the Cuban Government.

Trade measures:

- Cuban tariffs range from Free for nuclear reactors to 30 percent ad valorem for power transmission cable.
- Most products subject to duties of 10 percent ad valorem, steam and gas turbines subject to 5 percent duties.

Source: Information sources for this table are given at the end of this appendix.

Table G-36a
Electronics goods: U.S. sector profile, 1995-99s

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	351,113	405,811	435,361	468,581	507,747
U.S. imports (*million dollars*)	170,613	174,138	188,465	193,990	220,537
Japan (*million dollars*)	48,086	42,998	43,871	39,664	42,829
Mexico (*million dollars*)	13,478	15,833	18,920	22,371	27,823
China (*million dollars*)	9,526	10,940	13,793	16,983	20,547
U.S. exports (*million dollars*)	116,818	124,600	143,390	138,952	149,785
Canada (*million dollars*)	16,941	18,019	19,759	19,745	20,912
Mexico (*million dollars*)	9,632	12,312	15,902	16,468	19,049
Japan (*million dollars*)	12,414	14,451	14,860	12,838	12,871
Apparent U.S. consumption (*million dollars*)	404,908	455,349	480,436	523,619	578,499
Ratio of exports to production (*percent*)	33	31	33	30	29
Ratio of imports to apparent consumption (*percent*)	42	38	39	37	38
Employment (*thousands*)	1,774	1,839	1,899	1,966	2,015
Number of establishments (*thousands*)	2,409	2,443	2,453	2,490	2,528

Note.—Sector covered under HTS ch. 37, 8469-8473, 8517-8544, 9001-9017, 9023-9033, and ch. 91.

Source: Information sources for this table are given at the end of this appendix.

Table G-36b
Electronics goods: U.S. sector characteristics

U.S. position in world market:

- U.S. share of world production is approximately 40 percent and is concentrated in high technology products, such as computers, semiconductors, networking equipment, and fiber optics.

Factors affecting international competitiveness:

- U.S. international competitiveness in electronics goods is based on technological sophistication of products, reputation for quality and reliability, and after sale service and support.

Government programs & regulations:

- Government certification of all equipment connected to the public telecommunications network.
- High degree of intellectual property rights protection.

Trade measures:

- U.S. tariffs on electronics goods are generally Free except for some consumer electronics (column 2 duties range between 25 and 40 percent ad valorem).

Special sector characteristics:

- Domestic sector comprises a wide selection of products, producers, and locations.
- Most products have inputs from more than one country.
- Multinational companies that often contract out labor-intensive or assembly operations.
- Speed of delivery to customer is essential.

Source: Information sources for this table are given at the end of this appendix.

Table G-36c
Electronics goods: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	20	25	30	32	35
Cuban imports (*million dollars*)	107	130	174	202	225
Italy	8	6	14	25	35
Canada	13	39	24	38	38
Spain	28	37	46	30	34
Cuban exports (*million dollars*)	([1])	([1])	2	1	6
Apparent Cuban consumption (*million dollars*)	127	155	202	233	254
Ratio of exports to production (*percent*)	([2])	([2])	1	([3])	3
Ratio of imports to apparent consumption (*percent*)	84	84	86	87	89
Employment (*thousands*)	250	300	350	375	400
Number of establishments (*hundreds*)	1	1	2	2	2

[1] Less than $500,000.

[2] Not applicable.

[3] Less than 0.5 percent.

Source: Information sources for this table are given at the end of this appendix.

Table G-36d
Electronics goods: Cuban sector characteristics

Cuban position in world market:
- Cuban shares of world production, consumption, and trade are negligible.

Factors affecting international competitiveness:
- Cuba is not internationally competitive in the production of electronics goods, owing to antiquated production facilities and the lack of access to technology.
- Telecommunications and transportation infrastructure is inadequate.

Government programs & regulation:
- The Government still holds a majority stake in telecommunications services providers.

Trade measures:
- Tariffs range from 5 percent to 40 percent ad valorem.

Special sector characteristics:
- Cuban production is mainly for the domestic market; exports are low technology products such as cables.
- The main activities in the sector are assembly of television receivers, calculators, and personal computers and the manufacture of low technology components.
- Education of software programmers is a priority but computer infrastructure is limited.
- Protection for intellectual property rights is inadequate.

Source: Information sources for this table are given at the end of this appendix.

Table G-37a
Medical goods: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	27,000	28,900	30,200	30,800	31,500
U.S. imports (*million dollars*)	4,951	5,368	5,895	6,934	7,932
Germany (*million dollars*)	1,062	1,038	1,014	1,182	1,365
Japan (*million dollars*)	957	966	1,0521	1,145	1,189
Mexico (*million dollars*)	541	669	784	851	970
U.S. exports (*million dollars*)	8,966	10,217	11,226	11,582	12,455
Japan (*million dollars*)	1,592	1,948	1,975	1,914	2,050
Germany (*million dollars*)	1,004	1,166	1,126	1,111	1,258
Canada (*million dollars*)	820	846	910	1,039	1,145
Apparent U.S. consumption (*million dollars*)	22,985	24,051	24,869	26,152	26,977
Ratio of exports to production (*percent*)	33	35	37	38	40
Ratio of imports to apparent consumption (*percent*)	22	22	24	27	29
Employment (*thousands*)	180	181	182	182	183
Number of establishments	2,325	2,325	2,325	2,338	2,340

Note.—Sector covered under HTS 9018.00 through 9022.00.

Source: Information sources for this table are given at the end of this appendix.

Table G-37b
Medical goods: U.S. sector characteristics

U.S. position in world market:

- U.S. share of world production is 40%.

Factors affecting international competitiveness:

- The United States is internationally competitive in the production of certain types of medical goods based on price (labor costs, production costs, material costs), quality (technology, manufacturing capabilities, skilled workforce), and reputation (brand name, length of time in business).

Government programs & regulations:

- Food and Drug Administration health & safety regulations.
- Medicare, Medicaid expenditures and reimbursement policies.

Trade measures:

- FDA health & safety regulations sometimes cited by foreign firms.

Special sector characteristics:

- U.S. medical goods industry considered to be most advanced in world.
- U.S. medical goods market maturing; U.S. industry more dependent on exports.
- Trend toward consolidation, larger and longer-term contracts with large group purchasing organizations.
- U.S. producers of commodity medical goods increasing assembly in Mexico, Dominican Republic, and Costa Rica.

Source: Information sources for this table are given at the end of this appendix.

Table G-37c
Medical goods: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	2	2	2	3	3
Cuban imports (*million dollars*)	8	9	12	15	20
Germany (*million dollars*)	2	2	3	5	6
Spain (*million dollars*)	2	1	4	3	3
Japan (*million dollars*)	1	1	2	2	2
Cuban exports (*million dollars*)	0.1	0.1	0.1	0.1	0.1
Apparent Cuban consumption (*million dollars*)	10	11	14	18	22
Ratio of exports to production (*percent*)	5	5	5	3	3
Ratio of imports to apparent consumption (*percent*)	81	83	86	84	87
Employment	400	400	400	450	500
Number of establishments	20	20	20	22	22

Source: Information sources for this table are given at the end of this appendix.

Table G-37d
Medical goods: Cuban sector characteristics

Cuban position in world market:

- Cuban shares of world production, consumption, and trade are negligible.

Factors affecting international competitiveness:

- Cuba has low labor costs, skilled workforce, health care infrastructure.
- Cuba has an inadequate marketing and distribution system for medical goods.

Government programs & regulation:

- Extensive Ministry of Health policies, including health insurance, health and safety regulations, and pricing policies.

Trade measures:

- Imports of medical goods face licensing requirements and relatively high tariffs.

Special sector characteristics:

- Relatively well-educated physicians and other health care workers.
- Health system relatively advanced by developing country standards, but has worsened since loss of Soviet assistance.

Source: Information sources for this table are given at the end of this appendix.

Table G-38a
Cement: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*1,000 metric tons*)	73,500	75,000	77,000	82,000	81,500
U.S. imports (*1,000 metric tons*)	10,943	11,557	14,519	19,836	24,497
Canada (*1,000 metric tons)*	3,508	4,088	4,301	4,227	4,267
China (*1,000 metric tons*)	337	393	606	3,307	3,683
Thailand (*1,000 metric tons*)	0	0	0	253	3,169
U.S. exports (*1,000 metric tons*)	600	709	685	635	572
Canada (*1,000 metric tons*)	459	566	565	505	460
Mexico (*1,000 metric tons*)	7	11	29	30	28
Germany (*1,000 metric tons*)	13	22	23	11	10
Apparent U.S. consumption (*1,000 metric tons*)	83,843	85,848	90,834	101,201	105,425
Ratio of exports to production (*percent*)	1	1	1	1	1
Ratio of imports to apparent consumption (*percent*)	13	13	16	20	23
Employment (*thousands*)	18	18	18	18	18
Number of establishments (*hundreds*)	118	118	118	116	115

Note.—Sector covered under HTS 2523.10 through 2523.29.

Source: Information sources for this table are given at the end of this appendix.

Table G-38b
Cement: U.S. sector characteristics

U.S. position in world market:

- The United States is the world's second largest producing country (5 percent of global production).

Factors affecting international competitiveness:

- U.S. international competitiveness determined by production efficiency (primarily in terms of energy and power usage), availability of raw input materials, reliability of supply source, service, and proximity of major markets.

Government programs & regulations:

- Limited Government intervention in the U.S. cement industry.

Trade measures:

- NTR tariff on imported cement is at a rate of Free.

Special sector characteristics:

- High transportation costs relative to the low value-to-weight ratio of cement generally limit distribution to regional markets within a 200 mile radius of import terminals and production facilities.
- Over three-quarters of cement is distributed to ready-mixed concrete and concrete product manufacturers, many of which are owned by or related to U.S. producers and importers of cement.

Source: Information sources for this table are given at the end of this appendix.

Table G-38c
Cement: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*1,000 metric tons*)	1,470	1,453	1,713	1,720	1,801
Cuban imports (*1,000 metric tons*)	([1])	([1])	([1])	([1])	123
Venezuela (*1,000 metric tons*)	([1])	([1])	([2])	([2])	([1])
Chile (*1,000 metric tons*)	([1])	([1])	([2])	([2])	([1])
Mexico (*1,000 metric tons*)	([1])	([1])	599	([1])	([1])
Cuban exports (*1,000 metric tons*)	681	723	922	763	864
Dominican Republic (*1,000 metric tons*)	([1])	([1])	430	412	([1])
Haiti (*1,000 metric tons*)	([1])	([1])	401	292	([1])
Brazil (*1,000 metric tons*)	([1])	([1])	39	21	([1])
Apparent Cuban consumption (*1,000 metric tons*)	([1])	([1])	([1])	([1])	1,060
Ratio of exports to production (*percent*)	([1])	([1])	([1])	([1])	48
Ratio of imports to apparent consumption (*percent*)	([1])	([1])	([1])	([1])	12
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	6	6	6	6	6

[1] Not available.

[2] Less than 500 metric tons.

Source: Information sources for this table are given at the end of this appendix.

Table G-38d
Cement: Cuban sector characteristics

Cuban position in world market:

- Cuba's share of world production is negligible (about 0.1 percent).

Factors affecting international competitiveness:

- Abundant supply of raw materials for the production of cement.
- Transportation cost advantage to the U.S. market because of its geographic proximity.
- Plants are strategically located near ports as well as rail lines that connect the island's industrial centers that facilitate transportation to both domestic and international markets.
- But further increases in production constrained by operating inefficiencies and lack of financing to replace worn and outdated equipment.

Source: Information sources for this table are given at the end of this appendix.

Table G-39a
Plastics: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	75,000	76,000	79,000	81,000	83,000
U.S. imports (*million dollars*)	7,129	7,429	8,200	8,509	9,228
Canada (*million dollars*)	2,737	2,844	3,373	3,380	3,757
Japan (*million dollars*)	1,154	1,124	1,177	1,223	1,252
Germany (*million dollars*)	721	757	777	771	863
U.S. exports (*million dollars*)	14,950	15,467	17,311	16,616	16,846
Canada (*million dollars*)	3,368	3,766	4,217	4,278	4,666
Mexico (*million dollars*)	1,641	2,019	2,639	2,959	3,024
Belgium (*million dollars*)	821	810	899	872	813
Apparent U.S. consumption (*million dollars*)	67,179	67,962	69,889	72,893	75,382
Ratio of exports to production (*percent*)	20	20	22	21	20
Ratio of imports to apparent consumption (*percent*)	11	11	12	12	12
Employment (*thousands*)	131	131	131	130	130
Number of establishments (*hundreds*)	19	19	19	19	19

Note.—Sectors covered under SITC codes 57 and 58.

Source: Information sources for this table are given at the end of this appendix.

Table G-39b
Plastics: U.S. sector characteristics

U.S. position in world market:

- U.S. plastics industry has a large share of world production, consumption, and trade.
- U.S. becoming more important in world markets in selected areas of the industry.

Factors affecting international competitiveness:

- U.S. industry is highly competitive internationally owing to advanced production technology which lowers costs.
- Strong marketing capabilities.
- Quality of product is highly desired in specialized and critical applications.

Trade measures:

- Nearly all duty rates incorporate staged reductions to Free within 5 years.

Special sector characteristics:

- Capital-intensive industry, with highly automated production facilities geared toward low cost and high volume output.
- Extensive national and international marketing capability using company representatives.
- Companies often locate production facilities near where product will be further utilized or finished.

Source: Information sources for this table are given at the end of this appendix.

Table G-39c
Plastics: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production *(1,000 dollars)*	4,000	4,000	4,000	4,000	4,000
Cuban imports *(1,000 dollars)*	26,167	27,287	34,872	22,392	7,814
Canada *(1,000 dollars)*	1,275	1,470	2,140	2,582	1,929
France *(1,000 dollars)*	438	542	598	972	1,874
Germany *(1,000 dollars)*	1,199	1,553	2,276	1,899	1,416
Cuban exports *(1,000 dollars)*	337	42	138	110	16
Peru *(1,000 dollars)*	0	0	0	0	11
China *(1,000 dollars)*	2	0	0	0	5
Switzerland *(1,000 dollars)*	0	0	0	40	0
Apparent Cuban consumption *(1,000 dollars)*	29,830	31,245	38,734	26,282	11,798
Ratio of exports to production (*percent*)	8	1	3	3	0
Ratio of imports to apparent consumption (*percent*)	88	87	90	85	66
Employment	([1])	([1])	([1])	([1])	([1])
Number of establishments	2	2	2	2	2

Source: Information sources for this table are given at the end of this appendix.

Table G-39d
Plastics: Cuban sector characteristics

Cuban position in world market:
- Cuban share of world production, consumption, and trade is negligible.

Factors affecting international competitiveness:
- Cuba is not internationally competitive in plastics production.
- Cuba lacks sufficient petroleum for chemical feedstocks required for the production of plastics.

Government programs & regulation:
- Production, marketing and distribution of plastics are controlled by the Cuban government.

Trade measures:
- Cuba reportedly has strict regulations for imported products, including tariffs.

[1] Not available.

Source: Information sources for this table are given at the end of this appendix.

Table G-40a
Tires: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	12,750	13,200	13,600	14,000	14,400
U.S. imports (*million dollars*)	3,323	3,292	3,655	4,363	([1])
Canada (*million dollars*)	983	1,073	1,210	1,233	([1])
Japan (*million dollars*)	832	802	833	1,017	([1])
Korea, Republic (*million dollars*)	244	228	226	312	([1])
U.S. exports (*million dollars*)	2,036	2,163	2,643	2,794	([1])
Canada (*million dollars*)	787	773	890	952	([1])
Mexico (*million dollars*)	254	364	594	781	([1])
Japan (*million dollars*)	264	264	276	226	([1])
Apparent U.S. consumption (*million dollars*)	14,037	14,329	14,612	15,569	([1])
Ratio of exports to production (*percent*)	16	16	19	20	([1])
Ratio of imports to apparent consumption (*percent*)	24	23	25	28	100
Employment (*thousands*)	67	67	67	67	67
Number of establishments (*thousands*)	144	144	144	144	144

[1] Not available.

Note.—Sector covered under SITC 625.

Source: Information sources for this table are given at the end of this appendix.

Table G-40b
Tires: U.S. sector characteristics

U.S. position in world market:

- U.S. tire industry has a large share of world production, consumption, and trade.

Factors affecting international competitiveness:

- U.S. tire industry is competitive internationally, based on advanced production technology and overseas production sites with costs, strong marketing capability, strong research and development, and quality control capability.
- Extensive national and international marketing capability using company representatives, retail and other franchise outlets.

Government programs & regulations:

- Environmental regulations becoming important.

Special sector characteristics:

- Trend toward automated production is reducing production costs.

Source: Information sources for this table are given at the end of this appendix.

Table G-40c
Tires: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	([1])	([1])	([1])	([1])	([1])
Cuban imports (*million dollars*)	42	38	35	25	([1])
China (*million dollars*)	18	4	9	7	([1])
Former Soviet Union (*million dollars*)	0	5	7	5	([1])
Canada (*million dollars*)	2	3	1	2	([1])
Cuban exports (*million dollars*)	([2])	([2])	([2])	([2])	([1])
Uruguay (*million dollars*)	([2])	([2])	([2])	([2])	([1])
Nicaragua (*million dollars*)	([2])	([2])	([2])	7	([1])
Apparent Cuban consumption (*million dollars*)	42	38	35	25	([1])
Ratio of exports to production (*percent*)	([1])	([1])	([1])	([1])	([1])
Ratio of imports to apparent consumption (*percent*)	100	100	100	100	([1])
Employment (*thousands*)	([1])	([1])	([1])	([1])	([1])
Number of establishments (*hundreds*)	([1])	([1])	([1])	([1])	([1])

[1] Not available.

[2] Less than $500,000

Note.—Sector covered under SITC 625.

Source: Information sources for this table are given at the end of this appendix.

Table G-40d
Tires: Cuban sector characteristics

Cuban position in world market:
- Cuban share of world production is negligible.

Factors affecting international competitiveness:
- Cuba is not internationally competitive in the production of tires.

Government programs & regulation:
- Sales and marketing is conducted by a government agency.

Trade measures:
- Generally low tariffs on imported tires.

Special sector characteristics:
- Cuban market for tires includes truck, passenger car, farm equipment, and airplane tires.

Source: Information sources for this table are given at the end of this appendix.

Table G-41a
Sporting goods: U.S. sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
U.S. production (*million dollars*)	8,225	8,698	9,161	9,300	[1]9,260
U.S. imports (*million dollars*)	2,956	3,068	3,070	3,041	3,027
China (*million dollars*)	790	857	1,016	1,094	1,233
Taiwan (*million dollars*)	685	729	562	464	376
Canada (*million dollars*)	264	273	284	319	362
U.S. exports (*million dollars*)	1,731	1,900	1,934	1,688	1,621
Japan (*million dollars*)	553	555	431	345	349
Canada (*million dollars*)	303	291	340	344	325
United Kingdom (*million dollars*)	141	168	185	219	236
Apparent U.S. consumption (*million dollars*)	9,450	9,866	10,298	10,653	[1]10,667
Ratio of exports to production (*percent*)	21	22	21	18	[1]17
Ratio of imports to apparent consumption (*percent*)	31	31	30	28	[1]28
Employment (*thousands*)	58	60	62	62	[1]62
Number of establishments (*hundreds*)	2,135	2,138	2,142	2,144	[1]2,140

[1] Estimated by the Commission.

Note.—Sector covered under HTS 9506 through HTS 9507.

Source: Information sources for this table are given at the end of this appendix.

Table G-41b
Sporting goods: U.S. sector characteristics

U.S. position in world market:

- The United States is the world's largest market for sporting goods.
- The U.S. industry is a leading world supplier for only high-end, high technology products, such as certain golf clubs, exercise equipment, track and field equipment, and water skis.

Factors affecting international competitiveness:

- The U.S. sporting goods industry is mature, with capital-intensive products (such as golf and tennis balls, golf clubs shafts, and baseball bats) and products with a high ratio of weight to value (such as basketball backboards, football blocking sleds, sailboards, and equipment for gymnastics and track and field).

Government programs & regulations:

- U.S. producers and foreign suppliers to the U.S. market are affected by safety standards set by the Consumer Product Safety Commission and by product specifications set by various domestic and international bodies that govern competitive sports.

Trade measures:

- U.S. tariffs on several types of sporting goods were reduced to "Free" under the Uruguay Round of GATT.

Source: Information sources for this table are given at the end of this appendix.

Table G-41c
Sporting goods: Cuban sector profile, 1995-99

Sector data	1995	1996	1997	1998	1999
Cuban production (*million dollars*)	(1)	(1)	(1)	3.2	5.9
Cuban imports (*million dollars*)	(2)	(2)	(2)	(2)	(2)
Italy (*million dollars*)	0.2	0.6	0.6	0.5	(1)
Spain (*million dollars*)	0.1	0.2	0.2	0.5	(1)
Taiwan (*million dollars*)[3]	1	2	0	1	(1)
Cuban exports (*million dollars*)	(2)	(2)	(2)	(2)	(4)
Apparent Cuban consumption (*million dollars*)	(1)	(1)	(1)	(1)	(1)
Employment (*thousands*)	(1)	(1)	(1)	(1)	1.1
Number of establishments (*hundreds*)	(1)	(1)	(1)	(1)	(1)

[1] Not available.

[2] Not available, but believed to not exceed $5 million.

[3] Cuba's imports from Taiwan include games and toys, as well as sporting goods.

[4] Cuba's exports amounted to $45,000 in 1999.

Source: Information sources for this table are given at the end of this appendix.

Table G-41d
Sporting goods: Cuban sector characteristics

Cuban position in world market:

- Cuba is a negligible supplier of sporting goods to world markets.

Factors affecting international competitiveness:

- Cuba is not a competitive producer of most types of sporting goods.
- Cuba has high costs for inputs such as energy, capital, and imported materials and machinery.

Trade measures:

- 15% tariffs on most sporting goods items.

Special sector characteristics:

- Cuba has two categories of distribution; state and tourism.
- The state provides equipment to athletic teams and clubs. The tourism industry (hotels and resorts) serves as a primary importer of sporting goods for items such as water skis (from Italy) and exercise equipment (from Spain).

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Table G-32b. Compiled from data supplied by U.S. Geological Survey an*d* U.S. Bureau of Customs.

Table G-32c. Telephone interview by Commission staff with industry officials.

Table G-32d. U.S. Geological Survey.

Table G-32e. Telephone interview by Commission staff with industry representatives.

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Table G-39c. Industry sources, official statistics of the United Nations, and the Commission estimates.

Table G-39d. Industry sources, official statistics of the U.S. Department of Commerce, and the Commission estimates.

Table G-40a. Industry sources, official statistics of the United Nations, and the Commission estimates.

Table G-40b. Industry sources, official statistics of the U.S. Department of Commerce, and the Commission estimates.

Table G-40c. Industry sources, official statistics of the United Nations, and the Commission estimates.

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