United States International Trade Commission

U.S.-Chile Free Trade Agreement:

Potential Economywide and Selected Sectoral Effects

Investigation No. TA-2104-5
USITC Publication 3605
June 2003

U.S. International Trade Commission

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U.S.-Chile Free Trade Agreement: Potential Economywide and Selected Sectoral Effects

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Publication 3605 **June 2003**

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PREFACE

On February 28, 2003, the United States International Trade Commission (the Commission) instituted investigation No. TA-2104-5, *U.S.-Chile Free Trade Agreement: Potential Economywide and Selected Sectoral Effects.* The investigation, conducted under section 2104(f) of the Trade Act of 2002, was in response to a request from the United States Trade Representative (see appendix A).

The purpose of this investigation is to advise the President and the Congress as to the potential effects of the U.S.-Chile Free Trade Agreement (FTA). In particular, section 2104(f)(2) of the Trade Act provides that the Commission is to submit to the President and the Congress (not later than 90 calendar days after the President enters into the agreement) a report providing an assessment of the likely impact of the agreement on the United States economy as a whole and on specific U.S. industry sectors and the interests of U.S. consumers. Section 2104(f)(3) provides that the Commission, in preparing its assessment, review available economic assessments regarding the agreement.

The Commission solicited public comment for this investigation by publishing a notice in the *Federal Register* of March 19, 2003 (see appendix B). Interested party views are summarized in chapter 8 of this report.

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U.S.-Chile Free Trade Agreement: Potential
Economywide and Selected Sectoral Effects

EXECUTIVE SUMMARY

On January 21, 2003, the U.S. International Trade Commission (Commission) received a letter from the Office of the United States Trade Representative (USTR) requesting that the Commission prepare a report in accordance with section 2104(f)(2) of the Trade Act of 2002, to assess the likely impact of the U.S.-Chile Free Trade Agreement (FTA) on the United States economy as a whole, on specific industry sectors, and on the interests of U.S. consumers.[1] Section 2104(f)(3) also provides that the Commission, in preparing its assessment, review available economic assessments regarding any substantially equivalent proposed agreement and discuss areas of consensus and divergence between the various analyses and conclusions, including those of the Commission regarding the agreement.

Principal Findings

The United States and Chile both have open trade regimes with relatively low tariffs. Both countries also have open investment regimes and good protections in place for intellectual property rights. The FTA's most important benefits are not related to the reciprocal tariff elimination as much as the agreement's non-tariff provisions, and thus the effects are not easily quantified or observed. Among the hardest-to-quantify results of the FTA are those that might be described as effects on the general business climate between the United States and Chile. The FTA provides specific obligations in important areas such as intellectual property, services, investment, temporary entry of businesspersons, and telecommunications. This agreement may serve as a positive model for negotiations with other trading partners because it includes bilateral commitments in a wide range of non-tariff areas not covered in earlier trade agreements.

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[1] On Dec. 11, 2002, USTR announced that the United States and Chile had successfully concluded negotiations for the U.S.-Chile FTA (negotiations began in December 2000). On Jan. 29, 2003, President Bush signed a letter notifying Congress of the intent to enter into the U.S.-Chile FTA; the letter was received by Congress on Jan. 30, 2003, starting the countdown for when the agreement can be signed. On Feb. 28, 2003, USTR received reports from 31 trade advisory groups commenting on the proposed U.S.-Chile FTA. On Mar. 7, 2003, USTR released detailed summaries of each chapter of the U.S.-Chile FTA. On Apr. 3, 2003, the text of the U.S.-Chile FTA was made available to the general public. On May 27, 2003, USTR announced that the agreement would be signed on June 6, 2003. On May 30, 2003, the Commission received a letter from USTR providing the completed text of the agreement, and requesting that the Commission provide its report to the President and the Congress on June 9, 2003. Copies of the letters from USTR are in appendix A. U.S. Trade Representative Robert Zoellick and Chilean Foreign Minister Soledad Alvear signed the FTA on June 6, 2003. Office of the U.S. Trade Representative, "USTR Resources: Chile Free Trade Agreement," found at *http://www.ustr.gov/new/fta/chile.htm*, retrieved June 6, 2003.

The economywide effects on U.S. trade, production, and economic welfare of the U.S.-Chile FTA tariff reductions alone are likely to be negligible to very small. This is not an unexpected finding given the open trade relationship, small trade and bilateral investment flows relative to U.S. trade and investment worldwide, and Chile's small economy relative to that of the United States. This finding was based on a quantitative analysis that focused only on the impact of tariff removal, and did not account for the elimination or reduction of the non-tariff barriers (NTBs) related to such areas as services and investment, and better enforcement of intellectual property rights (IPR). While the economic impact of the reduction of NTBs may be significant, economic data generally are not available for NTBs and quantitative analysis for the most part is unable to reflect the full impact of their reduction. The economic literature reviewed for this report also generally estimates that U.S. economic welfare is not likely to be significantly changed by the elimination of tariffs in a U.S.-Chile FTA.

At the sectoral level, some sectors of the U.S. economy likely will experience increased import competition from Chile, and some sectors likely will experience increased export opportunities in Chile. However, any such increases would be from a very small base, given Chile's small economy and small market size, and thus have a minimal impact on production, prices, or employment in corresponding U.S. sectors. Based on a quantitative analysis of the impact of tariff cuts of the U.S.-Chile FTA in 2016, when staged tariff reduction was estimated to be complete, impacts most likely would be greater for those sectors with high initial trade barriers. For U.S. exports, this includes transportation equipment; textiles, apparel, and leather products; and coal, oil, and gas. For U.S. imports, this includes dairy products; textiles, apparel, and leather products; and other crops.

A qualitative analysis of a more disaggregated list of sectors showed that the reduction of both tariffs and NTBs under the U.S.-Chile FTA could result in increased U.S. exports of construction and mining machinery, motor vehicles, and telecommunications equipment, and increased U.S. imports of avocados, prepared and preserved fruit, and methanol. Bilateral trade in financial services and telecommunications services and U.S. investment flows are not likely to change significantly as a result of the U.S.-Chile FTA, given Chile's small market and the low U.S. and Chilean barriers that already prevail. Improved IPR protection and enforcement as a result of the agreement may lead to increased revenues for U.S. motion pictures, music recording, software, and publishing industries, but any increases would be from a very small base.

The U.S.-Chile Trade and Investment Relationship

Chile is a small economy about 1.5 percent the size of the U.S. economy. Chile has long been recognized for its liberal and transparent trade policy and foreign investment regime, although some controls, limitations, and restrictions remain. The Chilean economy is highly dependent on export earnings. Chile's total exports in 2002, valued at $21.9 billion, were the equivalent of nearly 36 percent of Chile's gross domestic

product (GDP). The United States is the single largest market for Chilean exports. Chilean merchandise exports to the United States were valued at nearly $3.7 billion in 2002, or one-fifth of Chile's 2002 export earnings. The United States is one of Chile's top import suppliers, ranking as the second largest supplier to Chile in 2002 behind Argentina.

Chile is a small trading partner of the United States, ranking as the 37th largest market for U.S. exports during 2002. U.S. exports to Chile totaled $2.3 billion in 2002. Leading U.S. exports to Chile were electronic products, transportation equipment, chemical products, and minerals and metals. U.S. imports from Chile totaled nearly $3.6 billion during 2002. Agricultural products were by far the largest category of U.S. imports from Chile, followed by minerals and metals. Approximately 14 percent of U.S. imports from Chile, valued at $513 million, entered duty free under the U.S. Generalized System of Preferences (GSP) program during 2002.[2] The U.S. trade deficit with Chile has expanded significantly in recent years, growing from $75 million in 2000 to a deficit of $1.2 billion in 2002. Trade in agricultural products, along with forest products and minerals and metals, accounts for most of the U.S. deficit with Chile.

The United States is the single largest investor in Chile, accounting for nearly one-third of actual foreign direct investment (FDI) in Chile since 1974, valued at $15.9 billion. In 2002, one-half of U.S. FDI in Chile was in transportation and communications, 18 percent in services, and nearly 15 percent in mining.

U.S.-Chile Free Trade Agreement

The agreement with Chile is largely modeled upon the North American Free Trade Agreement (NAFTA) and also includes commitments to observe certain WTO agreement obligations between the parties. Under the proposed agreement and its schedules of concessions,[3] Chile would immediately eliminate its own duties on many, if not most, eligible U.S. exports, while the United States would implement a more complex schedule of concessions involving several categories of duty elimination on goods originating in Chile. Many Chilean goods would be guaranteed existing duty-free access or be made immediately free of duty; sensitive agricultural products

[2] The Generalized System of Preferences program authorizes the President to grant duty-free access to the U.S. market for certain products that are imported from designated developing countries and countries in transition to market-based economies.References in this section to chapters and articles are made to the cited provisions found at USTR, "USTR Resources: Chile Free Trade Agreement," found at *http://www.ustr.gov/new/fta/chile.htm*, retrieved June 6, 2003.

[3] References in this section to chapters and articles are made to the cited provisions found at USTR, "USTR Resources: Chile Free Trade Agreement," found at *http://www.ustr.gov/new/fta/chile.htm*, retrieved June 6, 2003.

would be subject to U.S. tariff-rate quotas (TRQs); some apparel categories (mainly those goods of cotton or of man-made fibers) would receive reduced rates up to stated tariff preference levels; a few named rate lines would have stated commitments; and other products would receive staged duty reductions over 4, 8, 10 or 12 years (2 years for copper cathodes).

These tariff benefits are given only to "originating goods" under the terms of the agreement—i.e., those comprising inputs only from the two parties or containing only de minimis third-country content, those complying with rules of origin based largely on stated changes in tariff classification from foreign inputs to finished goods, and those made from originating materials under particular circumstances. However, because the FTA's rules of origin on goods containing non-party inputs are based on specified changes in tariff classification, it is difficult to predict what percentage of present or future trade would be considered eligible for tariff benefits under the U.S.-Chile FTA.

In addition to providing the schedules of tariff elimination and rules of origin for trade in goods, the agreement contains bilateral commitments in a wide range of non-tariff areas. It provides specific obligations in such areas as intellectual property rights (IPR), services, investment, temporary entry of business persons, and telecommunications, among others. The IPR provisions require Chile to adopt stronger protection and enforcement provisions for copyrights, trademarks, patents, and trade secrets than currently afforded. The commitments pertaining to service industries lift many of Chile's remaining restrictive regulatory barriers in place against U.S. service providers, particularly in the area of financial services, while investment provisions largely address and solidify the disciplines considered essential for stable business exchange, increased investment, and economic growth.

Review of Literature

Studying the economic impact of FTAs entails investigating static effects, such as trade creation and trade diversion, as well as terms of trade. In addition, issues related to scale effects and nonquantifiable effects have to be considered. The Commission reviewed three studies that provide qualitative assessments of a U.S.-Chile FTA.[4] These studies found that many U.S. imports from Chile already receive duty free entry into the United States either on a most-favored-nation basis or under GSP; that the lack of a U.S.-Chile FTA has caused U.S. exporters to lose market share in Chile to producers from countries that already have FTAs with Chile in force; and that U.S.-Chilean bilateral trade in fruits and vegetables is largely complementary in product and season, reducing potential displacement of U.S. producers.

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[4] J.F. Hornbeck, "The U.S.-Chile Free Trade Agreement: Economic and Trade Policy Issues," Congressional Research Service, Report for Congress No. RL31144, Feb. 3, 2003; National Association of Manufacturers, "Absence of Chilean Trade Agreement Costing U.S. Over $800 Million per Year," Oct. 2001; and Julie Stanton, "Potential Entry of Chile into NAFTA: Are There Lessons from U.S./Mexican Fruit and Vegetable Trade?" *Review of Agricultural Economics*, vol. 21, no. 1, spring/summer 1999, p. 122.

Table ES-1 shows the methodology and model assumptions of three selected economic analyses reviewed along with the current Commission report. One study (Brown et al., 2002), used a computable general equilibrium (CGE) model that incorporated full Uruguay Round implementation and liberalization of agricultural products, industrial products, and services. That study estimated the impact on the United States of a U.S.-Chile FTA to be small—the equivalent of 0.05 percent of U.S. gross national product (GNP), or $4.4 billion—with no sector experiencing contraction or expansion greater than 0.03 percent of sector employment. Harrison et al. and Brown et al. (1998) used CGE models to estimate the impact on the United States of various multilateral FTAs that include Chile as a member, such as Chilean accession to NAFTA, the Free Trade Area of the Americas, and the Asia Pacific Economic Cooperation. In general, these studies suggest that aggregate U.S. economic welfare is not likely to be significantly affected either by a U.S.-Chile FTA or by an FTA between Chile an NAFTA. Similarly, the current Commission analysis suggests that the U.S. welfare impact of complete tariff removal between the United States and Chile would range from negligble to very small (i.e., negative 0.0002 percent to 0.003 percent of U.S. GDP).

Impact of U.S.-Chile FTA Tariff Cuts on the U.S. Economy and Selected Sectors in 2016

The Commission used a CGE model and its corresponding data to estimate the possible effects of tariff cuts in the U.S.-Chile FTA on a number of economic measures. The model used in this study allowed the Commission to assess the likely effects of a multiple stage phase-in of tariff cuts, and to include an explicit time dimension in the assessment. The estimated impacts reflect only the tariff cuts and removal of TRQs for food and agricultural products, as lack of necessary data precluded the estimation of removal of NTBs such as liberalization with respect to trade in services and enhanced investment and IPR protection. Nevertheless, because U.S. and Chilean markets are relatively open and bilateral U.S. trade is very small relative to the size of the U.S. economy, the Commission estimates that the effects on the overall U.S. economy of the removal of Chilean NTBs generally would be very small.

The Commission found that after full phase-in of tariff cuts by 2016, U.S. exports to Chile would be 18 percent to 52 percent higher, while U.S. imports from Chile would be 6 percent to 14 percent higher. Relative to total U.S. trade, these changes are very small. At the sectoral level, the estimated impacts are relatively large for those sectors with high initial trade barriers. Given that Chile's tariffs are uniform, the impact of the tariff cuts on U.S. exports to Chile are expected to be uniform (in percentage terms), with the largest increases for transportation equipment (35 percent to 216 percent, or $240 million to $1,080 million); textiles, apparel, and leather products (29 percent to 101 percent or $30 million to $70 million); and coal, oil, gas, and other minerals (29 percent to 71 percent, or $10 million to $30 million). U.S. imports from Chile would increase by more than 100 percent, albeit from small bases, for dairy products

Table ES-1
Methodology and model assumptions: Selected economic literature on a U.S.-Chile FTA and a NAFTA-Chile FTA

Author	Database, base year	Returns to scale/ competition	Product differentiation	Type (static, dynamic, other)	Type of experiment	Welfare effect (percent of U.S. GDP or GNP)
USITC (2003) . . .	GTAP-5, 1997	Constant/Perfect	Armington	Sequential solutions	Tariffs	([1])
Harrison et al. (2002, 2001) . . .	GTAP-3, 1992	Constant/Perfect	Armington	Dynamic	Tariffs	[2]0.00
Brown et al. (2002)	GTAP-4, 1995	Increasing/Monopolistic (except Agriculture)	Product Variety	Static	Tariffs and services	0.05
Brown et al. (1998)	1990	Increasing/Monopolistic	Product Variety	Static	Tariffs	[2]0.09

[1] Welfare impact ranges from negative 0.0002 percent to 0.003 percent of U.S. GDP.
[2] Welfare impact reflects simulation of Chile accession to NAFTA.

Source: Glenn W. Harrison, Thomas F. Rutherford, and David G. Tarr, "Trade Policy Options for Chile: The Importance of Market Access," *The World Bank Economic Review*, vol. 16, no. 1, Jan. 2002; Harrison, Rutherford, and Tarr, "Chile's Regional Arrangements and the Free Trade Agreement of the Americas: The Importance of Market Access," World Bank, Working Paper No. 2634, July 17, 2001; Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," Research Seminar in International Economics, Discussion Paper No. 490, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, retrieved Dec. 16, 2002; and Brown, Deardorff, and Stern, "Computational Analysis of the Accession of Chile to the NAFTA and Western Hemispheric Integration," Research Seminar in International Economics, Discussion Paper No. 432, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, retrieved Oct. 16, 1998.

($10 million to $40 million); textiles, apparel, and leather products ($30 million to $230 million); and fruits, vegetables, and nuts ($120 million to $200 million). The estimated impacts for U.S. imports largely are driven by removal of relatively large tariffs and tariff equivalents: sugar manufacturing (43.8 percent); dairy products (34.8 percent); fruits, vegetables, and nuts (17.5 percent); and textiles, apparel, and leather products (13.9 percent).

Full preferential trade liberalization is likely to have a minimal impact on U.S. production. The fruits, vegetables, and nuts sector, the most affected U.S. sector, is estimated to shrink by 0.05 percent to 0.08 percent. U.S. output of other machinery and equipment is estimated to increase by 0.02 percent to 0.05 percent.

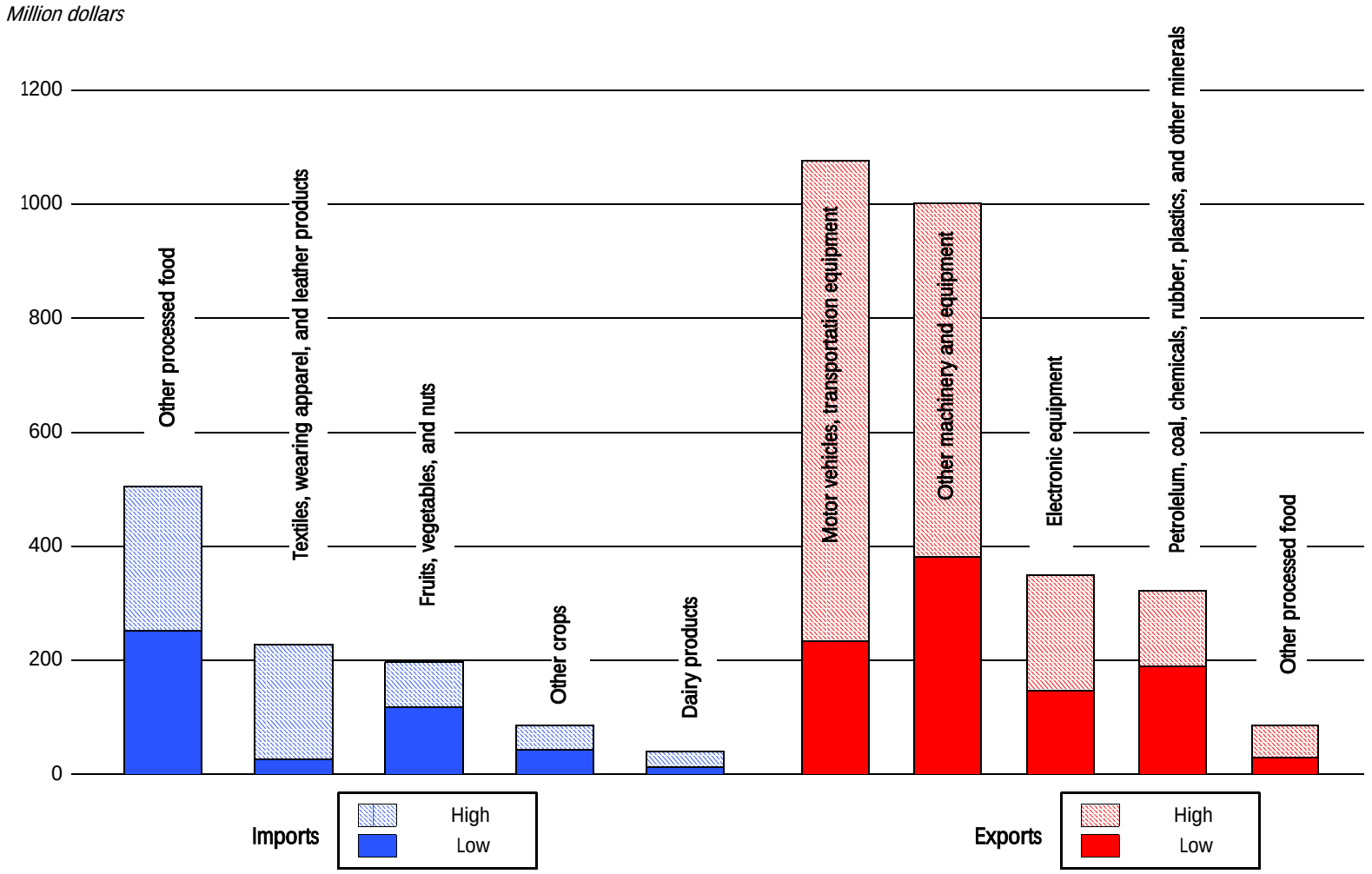
Figure ES-1 provides a range of estimates of the impact on selected U.S. exports to, and imports from Chile for the year 2016. In an effort to capture the different possibilities regarding the state of the world when the tariffs are to be eliminated, the Commission conducted a series of simulations using different assumptions regarding (1) the relative growth of the U.S. economy, and (2) the economies' responsiveness to changes in trade policies. The figure shows that the effects of tariff cuts in the U.S.-Chile FTA on U.S. exports to Chile are likely to be small and that the range of those impacts also is likely to be small, with the exception of transportation equipment and machinery exports, which are likely to increase by $240 million to $1,080 million and $380 million to $1,000 million, respectively. The figure also shows that FTA impacts on imports from Chile are likely to be smaller than those for exports for most sectors. Imports of other processed foods are likely to increase by $250 million to $480 million.

The small estimated sectoral impacts suggest that the effects of tariff removals under the U.S.-Chile FTA on U.S. economic welfare and GDP would be negligible to very small.[5] Welfare analysis confirms that following implementation of the tariff removals under the FTA in 2016, when bilateral trade would be fully liberalized, the welfare impact for the United States would range between less than a negative 0.001 percent of U.S. GDP to a positive 0.003 percent of U.S. GDP.

This is not an unexpected finding given the open trade relationship, small trade and bilateral investment flows relative to U.S. trade and investment worldwide, and Chile's small economy relative to that of the United States. The United States secured improved rules in a wide range of areas such as intellectual property, services, investment, temporary entry of businesspersons, and telecommunications. With regard to tariff elimination, Chile's tariff reductions are larger relative to U.S. tariff reductions, resulting in very small, but generally positive results.

[5] In this particular analysis, the term negligible refers to an absolute change of less than 0.001 percent of U.S. GDP.

Figure ES-1
Range of estimated impacts of tariff reductions on the United States from the U.S.-Chile FTA, selected sectors, 2016



Source: USITC estimates.

Impact on Selected U.S. Sectors: A Qualitative Assessment

Qualitative analysis of the effects of the U.S.-Chile FTA suggests that the agreement will have little or no impact in the short to medium term on bilateral trade, production, and employment in distinct industry sectors. This is not an unexpected finding, given Chile's small economy and small market size, as well as the low tariffs and few non-tariff measures affecting bilateral trade in the commodity sectors that are most prominent in the U.S.-Chile bilateral trade relationship. Likewise, while the U.S.-Chile FTA may foster trade facilitation in service industries and enhance investment and IPR protection, the impact on the U.S. economy is likely to be negligible given Chile's small market size.

For agricultural products, tariff cuts under the U.S.-Chile FTA likely will result in a measurable increase in U.S. imports of avocados. Chile already is a leading supplier of avocados to the United States and, while Chilean avocados are to be subject to a TRQ over the first 12 years of the agreement, the initial year in-quota amount eligible for duty free treatment is substantial compared to current trade levels. The agreement may create the potential for increased U.S. exports of beef through mutual recognition of health and inspection standards, as well as for increased U.S. exports of oilseeds and wheat flour through the elimination of prohibitive tariffs under Chile's price band mechanism. However, any increases are not likely to be significant because of differences between U.S. and Chilean consumer preferences for beef and the long (12 year) phaseout for prohibitive duties with respect to oilseeds and wheat flour.

In the longer term, the agreement likely will result in a measurable increase in U.S. imports of prepared and preserved fruit because Chile is a lower-cost producer than the United States. However, Chile is a minor supplier of prepared and preserved fruit to the U.S. market and any increase in imports from Chile could displace imports from other countries.

The U.S.-Chile FTA may result in increased U.S. imports of methanol from Chile. Methanol from Chile already may enter the United States duty free under the GSP program up to a certain quantity. Upon implementation of the agreement, Chilean producers would no longer be restricted by U.S. GSP competitive need limits, and Chilean excess methanol capacity could be directed to the U.S. market.

Tariff cuts as a result of the U.S.-Chile FTA may result in increased U.S. exports to Chile of telecommunications equipment, construction and mining machinery, and motor vehicles. U.S. exports of motor vehicles may be further enhanced by elimination of Chile's motor vehicle luxury tax under the FTA. However, given the small size of the Chilean market, any such increases are likely to be small and could be further constrained by factors such as regional sourcing decisions (in which production is done in or close to the intended export market) with respect to the motor vehicle sector.

The U.S.-Chile FTA is not expected to result in increases in overall U.S. imports or exports of financial services, primarily because that market is already open in both

countries and the Chilean market for such services is small. Similarly, the FTA commitments with respect to telecommunications services confirm transparency and market access for telecommunications service providers, but they are not likely to result in increased bilateral trade because of Chile's small domestic market.

Impact on Selected NTBs: A Qualitative Assessment

Qualitative analysis of the effects of the U.S.-Chile FTA further suggests that the agreement will have little or no impact in the short to medium term because of liberalization with respect to trade in services and enhanced investment and IPR protection. These effects are not unexpected given Chile's small market size, the small volume of bilateral trade and investment flows, and the fact that the United States and Chile both have few barriers in these areas.

Because the United States and Chile already have high standards for the treatment of foreign investors, the agreement is not likely to have a significant effect on investor confidence and related bilateral investment flows. The U.S.-Chile FTA potentially could increase revenues for U.S. industries dependent on copyrights, patents, trade secrets, and trademarks. However, any increases in revenues for the U.S. IPR industry would likely have negligible effects on the U.S. industry and economy.

Interested Party Views

In general, interested party views of the U.S.-Chile FTA are positive. The majority of the written statements submitted to the Commission praised the provisions of the agreement, particularly those from associations or companies involved in the services sector.

Concerns about that the agreement were raised by U.S. producers of import sensitive products—apricots, cling peaches, raspberry and blackberry growers and processors, dehydrated onion and garlic producers, and producers of ceramic tiles. Concerns about the rules of origin in the agreement were raised by leather tanners and distributors and other industries and associations. Concerns also were raised about the elimination of duty drawback provisions under the agreement as well as the need for further enhancements in the agreement for IPR protection.

Representatives of a number of manufacturing and commodity goods sectors—including forest, pulp, paper, and wood products; food industry producers; distilled spirits producers; producers of electronics goods; and wheat growers—praised the U.S.-Chile FTA, and stated that its implementation will improve U.S. commercial trade opportunities.

The associations and companies representing the interests of the services industry view the U.S.-Chile FTA favorably, and indicated that implementation of the agreement could benefit U.S. service providers. Specifically, interested parties indicated that the commitments in the U.S.-Chile FTA provide for enhanced market access, promote a stable business environment for service providers, facilitate bilateral trade in services, and offer a higher degree of IPR protection for firms.

CHAPTER 1
Introduction

Purpose of the Report

This report analyzes the likely impact of the proposed U.S.-Chile Free Trade Agreement (FTA) on the U.S. economy as a whole and on specific industry sectors and the interests of U.S. consumers. The U.S. International Trade Commission (USITC or "the Commission") initiated work on this fact-finding investigation in accordance with section 2104(f) of the Trade Act of 2002 following receipt of a letter of request from the United States Trade Representative (USTR) on January 21, 2003.[1] On May 30, 2003, the Commission received a letter from the USTR requesting that the report be provided to the President and the Congress on June 9, 2003.[2]

As specified in section 2104(f)(2)-(3) of the Trade Act, the Commission shall submit to the President and the Congress (not later than 90 calendar days after the President enters into the agreement[3]) a report including:

- an assessment the likely impact of the U.S.-Chile FTA on the U.S. economy as a whole and on specific industry sectors, including the impact the agreement will have on the gross domestic product, exports and imports, aggregate employment and employment opportunities, the production, employment, and competitive position of industries likely to be significantly affected by the agreement, and the interests of the U.S. consumers; and
- a review available economic assessments regarding the agreement, including literature regarding any substantially equivalent proposed agreement, and provide in its assessment a description of the analyses used

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[1] A copy of the request letter from USTR is in appendix A. The Commission's *Federal Register* notice of institution for this investigation is in appendix B.

[2] A copy of the letter from USTR is in appendix A.

[3] On Dec. 11, 2002, USTR announced that the United States and Chile had successfully concluded negotiations for the U.S.-Chile FTA (negotiations began in December 2000). On Jan. 29, 2003, President Bush signed a letter notifying Congress of the intent to enter into the U.S.-Chile FTA; the letter was received by Congress on Jan. 30, 2003, starting the countdown for when the agreement can be signed. On Feb. 28, 2003, USTR received reports from 31 trade advisory groups commenting on the proposed U.S.-Chile FTA. On March 7, 2003, USTR released detailed summaries of each chapter of the U.S.-Chile FTA. On April 3, 2003, the text of the U.S.-Chile FTA was made available to the general public. On May 27, 2003, USTR announced that the agreement would be signed on June 6, 2003. U.S. Department of Commerce, "U.S.-Chile Free Trade Agreement," found at *http://www.mac.doc.gov/chileFTA/whatsnew.html*, and "Countdown to FTA Implementation (Under TPA Guidelines)," found at *http://www.mac.doc.gov/chileFTA/timeline.html*, retrieved May 3, 2003.

and conclusions drawn in such literature and a discussion of areas of consensus and divergence between the various analyses and conclusions, including those of the Commission regarding the agreement.

Scope of the Report

This report provides an analysis of the likely impact of the proposed U.S.-Chile FTA on the U.S. economy as a whole and on specific sectors and the interests of U.S. consumers. It includes an overview of recent macroeconomic trends of the Chilean economy, Chile's current trade and investment policies, Chile's free trade agreements with other trading partners, and Chile's trade and investment flows with the United States and other countries. The report also includes a summary of the proposed U.S.-Chile FTA and a review of relevant economic literature on the agreement.

The quantitative analysis focuses on the impact of tariff removal and does not explicitly account for the elimination or reduction of nontariff barriers.[4] This computational analysis is supplemented with a qualitative analysis of the potential impact of the U.S.-Chile FTA on certain product and service sectors including beef; construction and mining equipment; copper; fruit; methanol; motor vehicles; oilseeds, oilseed products, and vegetable oils; prepared/preserved tomato products; telecommunications equipment; wheat and wheat flour; wood and wood products; financial services; and telecommunications services. Qualitative analysis also is provided regarding the potential economic effects on the United States of the investment and intellectual property provisions under the agreement.

Approach of the Report

The literature review for this investigation includes a description of analyses of the economic effects of FTAs substantially similar to the proposed U.S.-Chile FTAs, as well as the effects on the United States of actual or potential FTAs in which Chile is a member. The economic literature reviewed was drawn from relevant academic, public sector, and private sector institutions.

The study employs a multicountry model with economywide coverage of merchandise and service sectors (a global computable general equilibrium model). This model is the Global Trade Analysis Project (GTAP) model which is described more fully in appendix C. It was used to estimate the likely trade and economic impact of the U.S.-Chile FTA for

[4] Nontariff barriers include such factors as rules of origin, customs procedures, technical barriers to trade, and regulations and restrictions with respect to such areas as investment, telecommunications, electronic commerce, and intellectual property rights.

22 aggregated sectors. The commodity aggregation adopted here identifies sectors that have relatively high domestic-world price gaps due to tariffs and tariff-rate quotas (TRQs) and relatively large trade flows. The economies covered in the analysis included the United States and Chile, as well as 11 regional aggregates representing the rest of the world.

The GTAP database, which represents the global economy in 1997, was adjusted to reflect expected economic conditions in 2004, the the U.S.-Chile FTA is expected to enter into force. The adjusted database reflects the Uruguay Round Agreement implementation as well as Chile's FTAs with other countries. A baseline was established by simulating changes that are likely to occur from 2004 to 2016, the year it was estimated that liberalization under the U.S.-Chile FTA would be fully implemented. In particular, the CGE model was simulated sequentially to approximate a dynamic process in which the world's economies change over time. To build the projected baseline, data on population growth, capital growth, economic growth, and U.S. sectoral composition were applied to the model to describe economic conditions in 2004, 2008, 2012, and 2016. The impacts of the FTA on the U.S. economy were then simulated with respect to the baseline by gradually removing relevant tariffs and price gaps due to TRQs. In particular, a series of simulations were conducted to determine the sensitivity of impacts to selected model assumptions and parameters (for example, the parameters that determine the response to trade prices). The analysis and discussion of FTA impacts were based on the ranges obtained from the sensitivity analysis. The impacts of liberalizing trade subject to nontariff measures, where price gaps do not exist, were analyzed qualitatively.

The qualitative analysis includes an assessment of the potential impacts on U.S. imports, U.S. exports, and the U.S. industry as a whole of specific provisions of the proposed U.S.-Chile FTA. Product and service sectors identified for qualitative analysis were selected based upon a comprehensive examination and consideration of the following: examination of the trade liberalization schedules of the U.S.-Chile FTA to assess the relative liberalization of sectoral trade with respect to tariff and nontariff measures; U.S.-Chile bilateral trade flows; Chile's trade flows with the rest of the world; assessments of the apparent sensitivity of specific industries, commodities, and service sectors; and determinations made based on the expertise of Commission industry analysts.

Data for the study were obtained from industry reports, interviews with government and industry contacts, written submissions to the Commission,[5] and the GTAP database. Other data sources include the U.S. Department of Agriculture; the U.S. Department of Commerce; the U.S. Department of State; the U.S. Embassy in

[5] See chapter 8 for a summary of written submissions.

Santiago, Chile; the International Monetary Fund (IMF); the United Nations Economic Commission for Latin America and the Caribbean (ECLAC); the World Trade Organization (WTO); the Chilean Central Bank; and the Chilean Ministry of Foreign Affairs.

Organization of the Report

The remainder of this chapter presents a concise overview of the Chilean economy, Chile's trade and investment policies, and U.S.-Chile bilateral trade and investment flows. Chapter 2 presents an overview of the proposed U.S.-Chile FTA. Chapter 3 presents the literature review. Chapter 4 reports quantitative estimates of the likely trade and economywide effects of the tariff reduction and elimination of the U.S.-Chile FTA on a number of measures of economic activity, including exports, imports, production, and employment. Chapter 5 presents the results of a qualitative analysis of the likely impact of the U.S.-Chile FTA on selected sectors. The product sectors analyzed are—beef; construction and mining equipment; copper; fruit; methanol; motor vehicles; oilseeds, oil products, and vegetable oils; preserved and prepared tomato products; telecommunications equipment; wheat and wheat flour; wood and wood products; financial services; and telecommunication services. Chapter 6 discusses the investment provisions of the U.S.-Chile FTA and provides a qualitative assessment of the potential impact on the United States. Chapter 7 provides a survey of the intellectual property rights (IPR) provisions of the U.S.-Chile FTA and provides a qualitative assessment of the potential impact on the United States. Chapter 8 summarizes written submissions received in response to the *Federal Register* notice.

Overview of the Chilean Economy

Macroeconomic Trends

Chile's economy is very small relative to that of the United States. Chile's gross domestic product (GDP) of $153 billion in 2001 was about 1.5 percent the size U.S. GDP of $10.1 trillion.[6] Chile ranks as the fifth largest economy in Latin America, behind Brazil, Mexico, Argentina, and Colombia. The Chilean economy is approximately one-ninth the size of that of Brazil, and is less than one-sixth that of Mexico.[7] With a population of

[6] 2001 GDP on a purchasing power basis. Central Intelligence Agency, *The World Factbook*, 2002, found at *http://www.cia.gov/cia/publications/factbook/docs/notesanddefs.html*, retrieved May 1, 2003.

[7] Data are for the year 2000, based on constant 1995 prices. United Nations Economic Commission for Latin America and the Caribbean (ECLAC), *Statistical Yearbook for Latin America and the Caribbean*, 2001, table 135, pp. 196-197, found at *http://www.eclac.cl/publicaciones/Estadisticas/1/LCG2151PB/indice.pdf*, retrieved May 1, 2003.

15.5 million, the Chilean market is very small relative to the United States, Mexico, and Canada. However, Chile's per capita GDP of $10,000 in 2001 was slightly larger than that of Mexico. Chile's population and per capita GDP compared with those of selected Western Hemisphere countries is shown in table 1-1.

The Chilean economy continues to outperform that of most other Latin American countries. Chile's 1.8 percent GDP growth rate in 2002 outpaced growth in Brazil, Mexico, Argentina, and Colombia.[8] Chile's average annual GDP growth rate of 3.0 percent during 2000-02 was significantly higher than the overall Latin American average of 1.2 percent during the same period.[9]

Trade and Investment Policies

Chile is widely recognized for its liberal and transparent trade and investment regime and its policies of implementing unilateral reforms to deregulate the economy,[10] although some controls, limitations, and restrictions remain. Nearly all of Chile's tariffs generally are bound in the WTO at a maximum of 25 percent ad valorem, with the notable exceptions of tariffs for certain agricultural products, which are bound at 31.5 percent.[11] In addition to the higher bound tariffs, wheat, wheat flour, edible vegetable oils, and sugar, are subject to an additional variable rate—the so-called price band system.[12]

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[8] Real GDP growth rates in 2002 for the above-referenced countries were: Brazil (1.5 percent), Mexico (1.2 percent), Argentina (-11.0 percent), and Colombia (1.6 percent). ECLAC, *Preliminary Overview of the Economies of Latin America and the Caribbean*, December 2002, table A-1, p. 107.

[9] Ibid.

[10] World Trade Organization (WTO), "Chile: Trade Policy Review," press release, Sept. 10, 1997, PRESS/TPRB/60, found at *http://www.wto.org/english/tratop_e/tpr_e/tp60_e.htm*, retrieved May 1, 2003.

[11] Items bound at 31.5 percent include: dairy products, cereals, wheat gluten, oil seeds, animal and vegetable fats and oils, and animal feed. U.S. Department of Agriculture, FAS Online, "Chilean Tariff Schedule," found at *http://www.fas.usda.gov/scriptsw/wtopdf/wtopdf_frm.asp*, retrieved May 2, 2003. In August 2001, Chile formally registered with the WTO a new consolidated sugar import tariff, increasing from the existing level of 31.5 percent to 98 percent. In order to increase the tariff, Chile offered quotas in compensation to its three principal suppliers, Argentina, Guatemala, and Brazil. U.S. Trade Representative (USTR), "Chile," *2003 National Trade Estimate Report on Foreign Trade Barriers*, found at *http://www.ustr.gov/reports/nte/2003/index.htm*, retrieved May 1, 2003.

[12] Chile's price band system for wheat, flour, edible vegetable oils, and sugar covers approximately 33 tariff lines. Under this system, variable duties, which may be positive or negative, are imposed on top of ad valorem tariffs to keep domestic prices within a predetermined range. The effect of the price band system is to mitigate the impact of changes in global market prices on Chilean producers and consumers. The price band for oils was suspended in April 2001. In October 2002, based on a complaint filed by Argentina, the WTO ruled that Chile must modify its price band system to make it more transparent. Chile has until December 2003 to implement the WTO ruling. U.S. Department of State telegram, "The 2003 National Trade Estimate Report on Chile," message reference No. 3529, prepared by U.S. Embassy Santiago, Dec. 20, 2002; and WTO, *Appellate Body Report*, WT/DS207/AB/R, adopted Oct. 23, 2002; and *Panel Report*, WT/DS207/R, May 3, 2002, adopted Oct. 23, 2002, as modified by the Appellate Body Report, WT/DS207AB/R.

Table 1-1
Chile and selected Western Hemisphere countries: Population and GDP per capita as of July 2002

Country	Population	GDP per capita
	Millions	
United States *(2001)*	280.6	$36,300
Canada *(2002)*	31.9	29,400
Chile *(2001)*	15.5	10,000
Mexico *(2001)*	103.4	9,000
Brazil *(2000)*	176.0	7,400

Source: Central Intelligence Agency, *The World Factbook 2002*, found at *http://www.cia.gov/cia/publications/factbook/geos/ci.html*, retrieved May 9, 2003.

Chile applies a uniform ad valorem tariff lower than the WTO-bound rate to virtually all imports. Chile also has a network of preferential tariff regimes and free trade agreements, which are discussed in more detail below. Since 1999, the Chilean Government has unilaterally reduced its tariff rate by 1 percent annually with the goal of reaching a uniform tariff of 6 percent ad valorem;[13] on January 1, 2003, Chile's applied tariff was lowered from 7 percent to 6 percent ad valorem, concluding the unilateral tariff reduction program. A key exception to the 6 percent uniform tariff is for imports of used goods, which are subject to a tariff surcharge that brings the total tariff to 9 percent (imports of used automobiles are prohibited). Chile also applies a number of WTO safeguard measures.[14]

Certain Chilean taxes and sanitary and phytosanitary requirements impede the entry of certain U.S. products. In addition to the tariff, Chile imposes a luxury tax of 85 percent on imported motor vehicles above a certain price, placing U.S. automobiles at a competitive disadvantage relative to Chile's current FTA partners whose products are exempt from the Chilean duty and who either are exempt from or have negotiated reductions in the luxury tax.[15] Chilean animal health and phytosanitary requirements impede the entry of certain products. U.S. exports of certain fruits have been blocked by Chilean sanitary and phytosanitary requirements. U.S. exports of fresh and frozen uncooked poultry are effectively blocked from the Chilean market by salmonella inspection requirements. U.S. poultry and red meat exports are constrained by Chile's failure to recognize the U.S. meat and poultry inspection systems.[16]

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[13] Chile's schedule of annual unilateral tariff reductions began in January 1999, when the prevailing uniform tariff rate of 11 percent was lowered to 10 percent.

[14] USTR, "Chile," *2003 National Trade Estimate Report on Foreign Trade Barriers*.

[15] The luxury tax on motor vehicles is discussed in greater detail in chapter 5. U.S. Department of Commerce, International Trade Administration, "Frequently Asked Questions About Doing Business in Chile," found at *http://www.mac.doc.gov/chileFTA/faq.html*, retrieved May 2, 2003.

[16] Beef is discussed in greater detail in chapter 5. U.S. Department of State telegram, "The 2003 National Trade Estimate Report on Chile," message reference No. 3529.

Since 2001, the Central Bank of Chile removed many long-standing restrictions on capital flows in an effort to spur foreign investment and revitalize the domestic capital market.[17] As a result of those changes, the International Monetary Fund (IMF) recently reported that Chile "is now essentially free of capital account controls."[18] The Chilean foreign exchange was liberalized in September 1999, when the exchange rate band mechanism was eliminated and the Chilean peso was allowed to float freely in international currency markets.[19]

While Chile welcomes foreign investment, controls and restrictions exist. Foreign investment is subject to pro forma screening by the Government of Chile. The Foreign Investment Committee (FIC) of the Ministry of Economy is required to approve investments exceeding $5 million or investments made in certain sensitive sectors, including the media and the provision of public services, and investments made by foreign governments or by foreign public entities. The FIC also is the sole institution empowered to accept foreign investments covered by Decree Law (DL) 600, which affords certain benefits and guarantees for investments exceeding $1 million.[20]

Trade Agreements

In addition to being a WTO member, Chile is a member of the Asia Pacific Economic Cooperation (APEC) forum[21] and is participating in the ongoing negotiations for the Free Trade Area of the Americas (FTAA).[22] Chile also participates in a network of comprehensive market opening agreements with other Latin American countries as well as bilateral and multilateral free trade agreements with global trading partners. U.S. industry representatives have long expressed the concern that, without an FTA,

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[17] Chile's current investment regime is discussed in more detail in chapter 6.

[18] IMF, "Chile: 2001 Article IV Consultation," found at *http://www.imf.org/external/pubs/ft/scr/2001/cr0116.pdf*, retrieved Dec. 7, 2001.

[19] Under the former system, Chile's independent central bank intervened to maintain the value of the Chilean peso within a narrow band in terms of the U.S. dollar along a path of managed depreciation (a so-called crawling peg). The peso floats freely under the current system, although the central bank reserves the right to intervene in currency markets when it deems fit to influence market direction and expectations. U.S. Department of State telegram, "Chilean Economy Holds Its Own in 2001," message reference No. 0590, prepared by U.S. Embassy Santiago, March 7, 2002.

[20] U.S. Department of State telegram, "The 2003 National Trade Estimate Report on Chile," message reference No. 3529.

[21] APEC was established in 1989 in response to the growing interdependence among Asia-Pacific economies. Begun as an informal dialogue group, APEC has since become the primary regional vehicle for promoting open trade and practical economic cooperation. Other APEC members are: Australia, Brunei Darussalam, Canada, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Chinese Taipei, Thailand, United States, and Vietnam. APEC, found at *http://www.apecsec.org.sg/*, retrieved May 2, 2003.

[22] Chile is one of the 34 democracies in the Western Hemisphere negotiating to create a hemisphere-wide free trade area. The participating countries aim to complete negotiations for the agreement by 2005. FTAA Administrative Secretariat, "Overview of the FTAA Process," found at *http://www.ftaa-alca.org/View_e.asp*, retrieved May 2, 2003.

U.S. exports are at a competitive disadvantage in the Chilean market because U.S. products face higher duties in Chile than do products of countries with which Chile already has FTAs.[23]

Chile has trade-liberalizing "economic complementation" agreements with Bolivia (1993), Venezuela (1993), Colombia (1994), Ecuador (1995), and Peru (1998). All are members of the Latin American Integration Association, which has as its goal the eventual formation of a Latin American common market.[24] These bilateral agreements have as their objectives the creation of an economic space that permits the free movement of goods, services, and factors of production. Trade liberalization is accomplished through asymmetrical tariff reductions on a relatively narrow list of products, with the relatively less-developed economy allowed more time (as much as 18 years under the Chile-Peru agreement) to phase in tariff reductions and a longer list of exceptions.[25]

Chile joined the Southern Common Market (Mercosur)[26] as an associate member in 1996. As an associate member, Chile participates in the Mercosur free trade area, but not in the Mercosur customs union and common external tariff.[27] Chile also has operative FTAs with Canada (implemented in 1997), Mexico (1998), the Central America Common Market countries (2001),[28] and the European Union (February 2003). In addition to the United States, Chile concluded negotiations for FTAs, although the agreements are not yet in force, with South Korea (negotiations concluded in October 2002) and the European Free Trade Area (EFTA) countries (March 2003).[29]

Chile has signed bilateral investment treaties (BITs) with more than 50 countries (Chile's FTAs with Canada and Mexico have investment measures comparable with those of a BIT). Chile also has treaties to avoid double taxation in force with Argentina, Canada, and Mexico, as well as tax treaties with Ecuador and Poland pending implementation.[30] The United States and Chile do not currently have either a BIT or a

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[23] Omar Sánchez, associate, Western Hemisphere affairs, U.S. Chamber of Commerce, written submission received Dec. 11, 2001; and Frank Vargo, vice president, international economic affairs and Tim Richards, senior manager, international trade and investment, General Electric Company, on behalf of the National Association of Manufacturers, written submission received Dec. 12, 2001.

[24] The Latin American Integration Association, known by its Spanish acronym ALADI, was formed in 1980. Current members of ALADI are Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. ALADI, found at *http://www.aladi.org/NSFALADI/SITIO.NSF/INICIO*, retrieved Apr. 24, 2003.

[25] Government of Chile, Ministry of Foreign Affairs, found at *http://www.direcon.cl/frame/acuerdos_internacionales/f_tlcs.html*, retrieved May 2, 2003.

[26] Mercosur members are Argentina, Brazil, Paraguay, and Uruguay. The Mercosur customs union, which became operative Jan. 1, 1995, is a free trade area with common external tariffs.

[27] Bolivia also is an associate member of Mercosur.

[28] The Central American Common Market countries are: Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

[29] EFTA members are Iceland, Liechtenstein, Norway, and Sweden.

[30] Tax treaties with Denmark, Brazil, Norway, Peru, South Korea have been signed but not ratified; negotiations have been completed with Germany. Government of Chile, Ministry of Foreign Affairs, found at *http://www.direcon.cl/frame/acuerdos_internacionales/f_acuerdos.html*, retrieved May 2, 2003.

bilateral tax treaty; negotiations for a tax treaty are underway, and the U.S.-Chile FTA would provide investment measures comparable with those of a BIT.[31]

Trade Patterns

The Chilean economy is highly dependent on export earnings. With total exports of goods and services valued at $22.3 billion in 2001 and $21.9 billion in 2002,[32] exports were equivalent to 35 percent of Chile's GDP in 2001, and nearly 36 percent in 2002.[33]

The United States is the single largest market for Chilean exports. Chilean exports of merchandise to the United States were valued at nearly $3.7 billion in 2002, or one-fifth of Chile's 2002 export earnings (the equivalent of 5.5 percent of Chile's GDP). Japan, the second leading destination of Chilean exports, accounted for 10.6 percent of Chilean shipments—just over one-half the shipments sent to the United States. Other leading markets, including China and Mexico, each accounted for less than 7 percent of Chilean exports (figure 1-1).

The United States has long ranked as the largest import supplier to Chile, but for the second consecutive year, the United States ranked as the second largest supplier to Chile in 2002 behind Argentina.[34] Argentina, the United States, and Brazil accounted for 19.3 percent, 16.2 percent, and 10.2 percent, respectively, of Chile's imports. Other leading suppliers each accounted for less than 5 percent of Chilean purchases (figure 1-2).

Chile's trade is widely distributed among several regional trade groups. Those regional trade groups include the North American Free Trade Agreement (NAFTA) partners (United States, Canada, and Mexico), the European Union (EU), the Southern Common Market (Mercosur) countries (Argentina, Brazil, Paraguay, and Uruguay), and northeast Asian countries (China, Japan, and South Korea). The NAFTA partners were the largest market for Chilean exports in 2002 (more than three-fourth of which was represented by the United States), accounting for more than one-fourth of Chile's exports, followed closely by the EU; the EU ranked first, followed closely by the United States, in 2001. Northeast Asia was the second largest market for Chilean exports in

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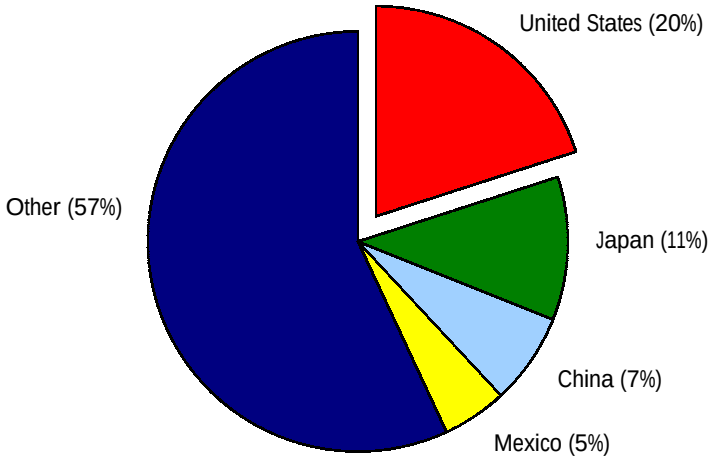
[31] Investment provisions of the U.S.-Chile FTA are discussed in chapter 2 and in chapter 6.

[32] ECLAC, "Chile," *Preliminary Overview of the Economies of Latin America and the Caribbean*, December 2002, p. 60.

[33] In comparison, exports of goods and services as a percent of GDP in 2001 was 37.4 percent for Canada, 28.7 percent for Mexico, and 8.0 percent for the United States. Government of Australia, "Chile: Fact Sheet," found at *http://www.dfat.gov.au/geo/fs/chle.pdf*, retrieved April 28, 2003; and Organization for Economic Cooperation and Development (OECD), "Basic Structural Statistics," p. 272, found at *http://www.oecd.org/pdf/M00009000/M00009091.pdf*, retrieved May 5, 2003.

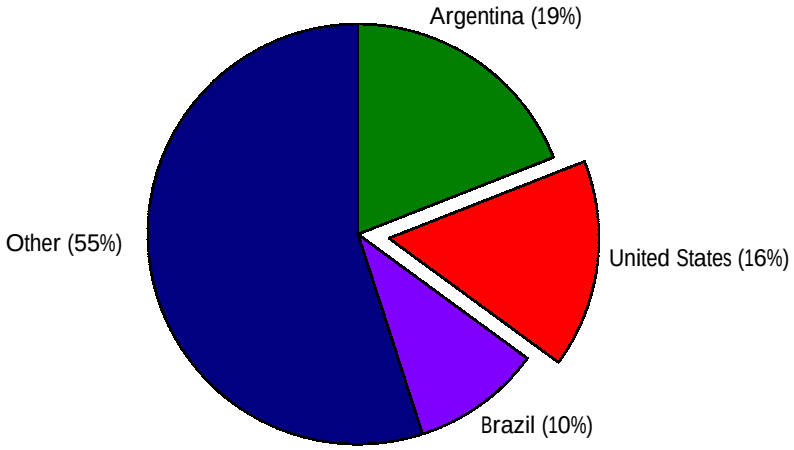
[34] The surge in imports from Argentina was a result of that country's sharp currency depreciation during 2001-2002, making Argentine exports more competitive in world markets. ECLAC, "Argentina," Preliminary Overview of the Economies of Latin America and the Caribbean, December 2002; p. 49, and Government of Chile, Ministry of Foreign Affairs, Commercio Exterior de Chile, Cuarto Trimestre 2002, February 2003, p. 36.

Figure 1-1
Chile: Exports to leading bilateral trade partners, by share, 2002



Source: Central Bank of Chile.

Figure 1-2
Chile: Imports from leading bilateral trade partners, by share, 2002



Source: Central Bank of Chile.

2002 nearly one-half of which was represented by Japan), and ranked third in 2001 (figure 1-3).

Figure 1-4 shows that the Mercosur countries were Chile's largest suppliers in 2001 and 2002, with Mercosur supplying about 30 percent of Chilean imports (nearly two-thirds of which from Argentina). The NAFTA countries and the EU supplied 21 percent (more than three-fourths of which was represented by the United States[35]) and 19 percent, respectively, of Chilean imports in 2002, with similar shares in 2001. Northeast Asia supplied more than 14 percent of Chilean imports in both 2002 and 2001 (nearly one-half of which was represented by China).

Merchandise Trade with the United States

Chile ranked as the 37th largest market for U.S. exports during 2002, behind Indonesia, Honduras, and South Africa but ahead of Russia, Austria, and Guatemala. Chile ranked as the 36th largest U.S. supplier of imports during 2002, behind South Africa, the Dominican Republic, and Austria but ahead of Turkey, Finland, and Honduras.

As shown in table 1-2, U.S. exports to Chile totaled $2.3 billion in 2002, down from $2.8 billion in 2001, and from $3.2 billion in 2000—a period decline of 26.3 percent. Sharply lower U.S. exports to Chile during 2000-2002 reflect several trends, including lower overall Chilean imports (down 6.5 percent), increased Chilean imports from the Mercosur countries (up 11.2 percent), and increased imports from the EU (up 5.0 percent). Electronic products and transportation equipment ranked as the leading U.S. exports to Chile (in reverse order from 2001), followed by chemical products, and machinery.

U.S. imports from Chile totaled nearly $3.6 billion during 2002, versus $3.3 billion during both 2001 and 2000. As in prior years, agricultural products were by far the largest category of U.S. imports from Chile, more than double the value of imports of Chilean minerals and metals (table 1-2). Chile is a beneficiary of the U.S. Generalized System of Preferences (GSP) program, which affords duty-free entry to eligible products of Chile and other designated countries.[36] Approximately 14 percent of U.S. imports from Chile, valued at $513 million, entered duty free under GSP during 2002, representing a 22.3-percent increase from GSP duty-free imports during 2000 (table 1-3).

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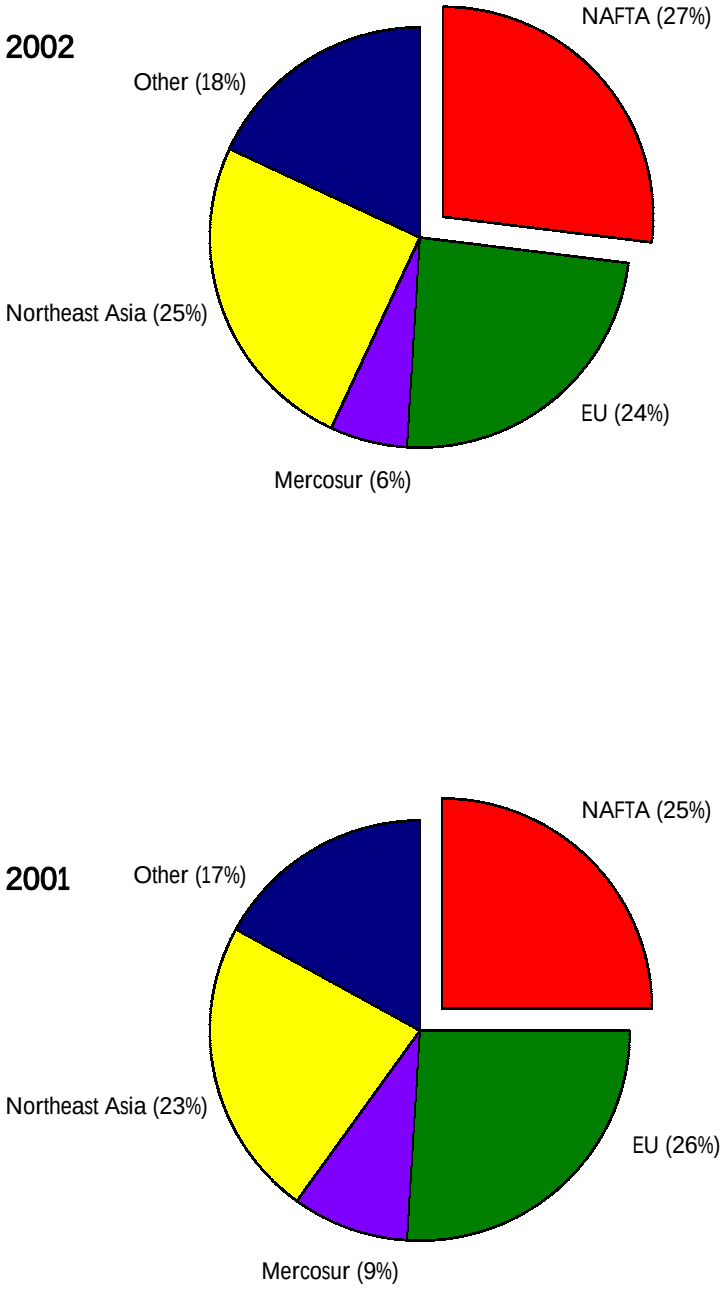
[35] Chilean imports from Canada and Mexico have decreased since Chile's FTAs with those countries have been operative. Chilean imports from Canada declined from 512 million in 2000 to $321 million in 2002. Chilean imports from Mexico declined from $1 billion in 1997 to $616 million in 2000 to $475 in 2002. Government of Chile, Ministry of Foreign Affairs, *Commercio Exterior de Chile, Cuarto Trimestre 2002*, February 2003, Annex 3.

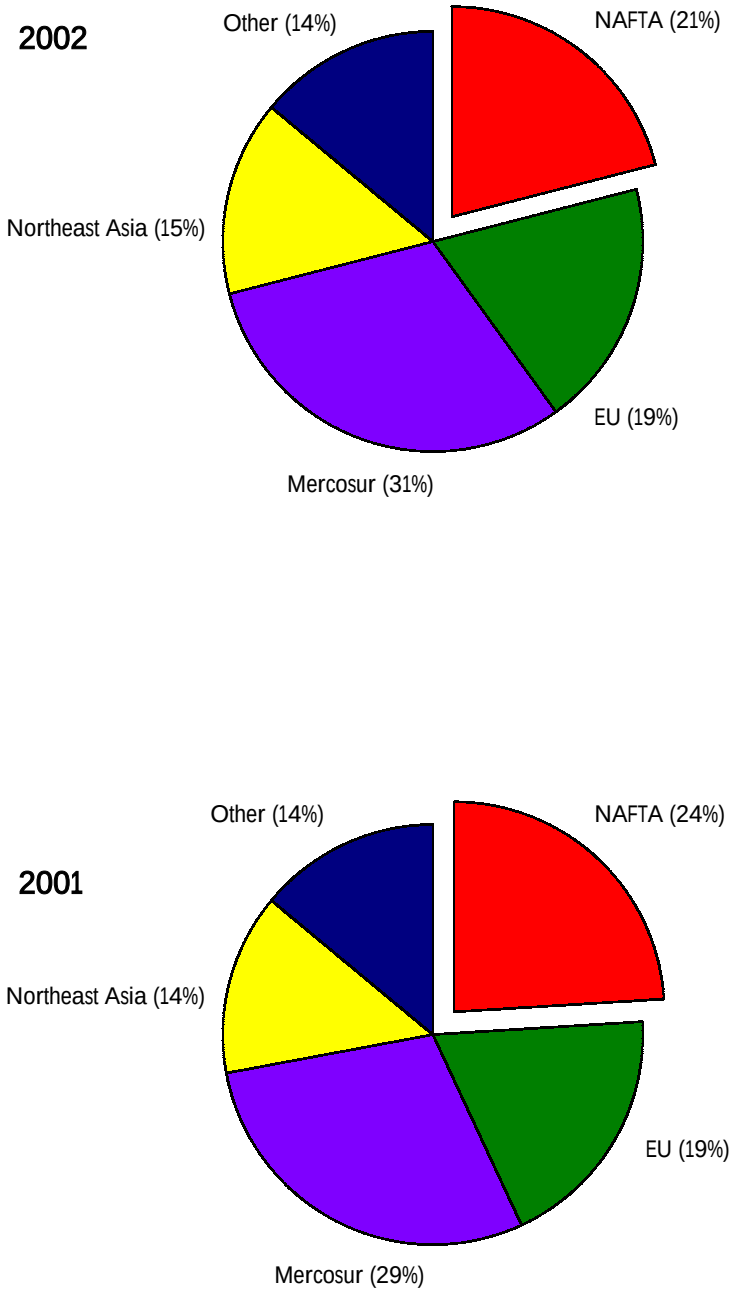
[36] The GSP program authorizes the President to grant duty-free access to the U.S. market for certain products that are imported from designated developing countries and countries in transition to market-based economies. For further discussion of the U.S. GSP program, see USITC, *The Year in Trade 2001: Operation of the Trade Agreements Program, 53rd Report*, publication No. 3510, May 2002, p. 5-18.

Figure 1-3
Chile: Exports to leading trade groups, by share, 2001 and 2002



Source: Central Bank of Chile.

Figure 1-4
Chile: Imports from leading trade groups, by share, 2001 and 2002



Source: Central Bank of Chile.

Table 1-2
U.S. trade with Chile: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2000-02[1]

Item	2000	2001	2002	Change, 2002 from 2000	
				Absolute	Percent
			Million dollars		
U.S. export of domestic merchandise:					
Agriculture products	116	105	118	2	2.0
Forest products	82	75	51	-31	-38.3
Chemicals and related products	455	468	426	-28	-6.2
Energy-related products	103	73	60	-13	-41.8
Textiles and apparel	97	69	46	-5	-52.4
Footwear	4	3	4	(2)	1.9
Minerals and metals	100	99	95	-5	-5.4
Machinery	328	345	299	-28	-8.5
Transportation equipment	819	709	548	-270	-33.0
Electronic products	847	675	557	-290	-34.2
Miscellaneous manufactures	73	41	36	-36	-50.0
Subtotal (Chapters 1-97)	3,022	2,661	2,240	-782	-25.9
Special provision	160	161	105	-54	-34.0
Total	3,182	2,823	2,344	-836	-26.3
U.S. imports for consumption:					
Agriculture products	1,527	1,513	1,665	137	9.0
Forest products	415	468	568	152	36.7
Chemicals and related products	263	321	341	78	29.7
Energy-related products	75	109	65	-10	-13.8
Textiles and apparel	9	14	12	3	29.4
Footwear	(2)	(2)	(2)	(2)	-72.6
Minerals and metals	781	670	675	-106	-13.6
Machinery	10	11	13	4	37.2
Transportation equipment	11	10	12	(2)	2.0
Electronic products	3	3	5	2	76.0
Miscellaneous manufactures	68	50	57	-11	-16.3
Subtotal (Chapters 1-97)	3,164	3,168	3,414	249	7.9
Special provision	93	111	143	50	54.1
Total	3,258	3,279	3,557	299	9.2
U.S. merchandise trade balance:					
Agriculture products	-1,412	-1,408	-1,547	-135	-9.6
Forest products	-333	-392	-517	-184	-55.2
Chemicals and related products	192	148	85	-106	-55.5
Energy-related products	28	-36	-5	-33	(3)
Textiles and apparel	88	55	33	-55	-61.2
Footwear	3	3	4	(2)	7.1
Minerals and metals	-681	-571	-580	101	14.8
Machinery	318	334	286	-32	-9.9
Transportation equipment	807	700	537	-271	-33.5
Electronic products	844	675	551	-292	-34.6
Miscellaneous manufactures	5	-10	-21	-25	(3)
Subtotal (Chapters 1-97)	-142	-507	-1,173	-1,031	-723.7
Special provision	67	51	-38	-105	(3)
Total	-76	-456	-1,211	-1,135	-1,500.9

[1] Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export.

[2] Less than $500,000.

[3] Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

Table 1-3
U.S. merchandise trade: U.S. imports for consumption from Chile, total imports and imports under GSP, 2000-02[1]

Item	2000	2001	2002	Change, 2002 from 2000	
				Absolute	Percent
Total	3,258	3,279	3,557	299	9.2
Entered under GSP	419	483	513	94	22.3
GSP *(percent of total)*	12.9	14.7	14.4	-	-

[1] Import values are based on customs value.

Note.—Calculations based on unrounded data.

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

The U.S. trade deficit with Chile has expanded significantly in recent years, growing from $76 million in 2000 to $1.2 billion in 2002. Trade in agricultural products, along with forest products and minerals and metals, accounts for most of the U.S. deficit with Chile (table 1-2).

There were three outstanding U.S. antidumping duty orders with respect to Chile in effect as of April 7, 2003. They were for individually quick-frozen red raspberries (effective date of original action July 9, 2002), preserved mushrooms (December 2, 1998), and fresh Atlantic salmon (July 30, 1998).[37]

Investment Patterns

The United States is the single largest investor in Chile, accounting for nearly one-third of actual foreign direct investment (FDI) in Chile since 1974 (figure 1-5),[38] valued at $15.9 billion.[39] Most FDI in Chile since 1974 has been in mining, services including banking and financial services, and public utilities; one-half of total FDI in Chile in 2002 was in mining (figure 1-6). In 2002, one-half of U.S. FDI in Chile was in transportation and communications, 18 percent in services, and nearly 15 percent in mining (figure 1-7).

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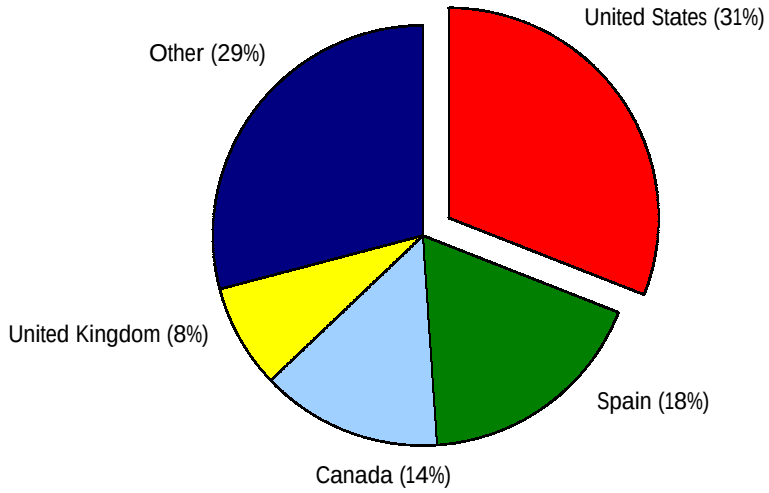
[37] USITC, "Antidumping and Countervailing Duty Orders, found at, *http://www.usitc.gov/7ops/ad_cvd_orders.htm*, retrieved May 5, 2003.

[38] Chile's current foreign investment code, Decree Law (DL) 600, was implemented in 1974. Consequently, cumulative investment data series provided by the Chilean Government begin with 1974.

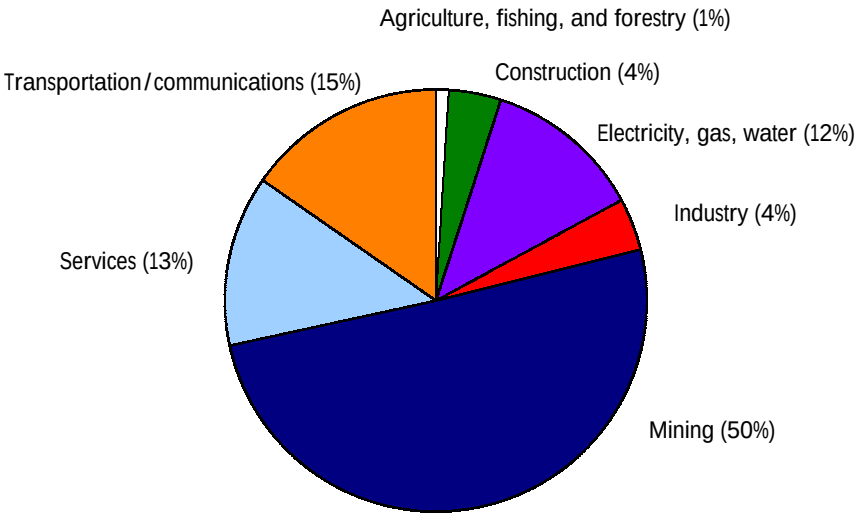
[39] As discussed above, FDI in Chile is subject to a pro forma screening process. Consequently, actual FDI may be lower than the amount authorized by the Chilean Government. In contrast to the actual 1974-2002 FDI data cited above, U.S. investment authorized by the Chilean Government under DL 600 during 1974-2002 totaled $28.7 billion, or 33.1 percent of the total. Government of Chile, Foreign Investment Committee, "Regulations, Policies, and Procedures," found at *http://www.foreigninvestment.cl/*, retrieved May 5, 2003.

Figure 1-5
Chile: Leading sources of FDI, by country, 1974-2002



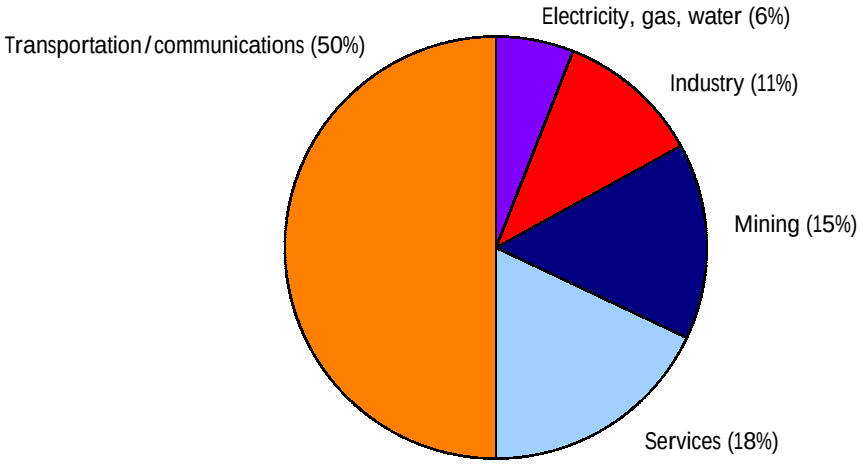
Source: Government of Chile, Foreign Investment Committee.

Figure 1-6
Chile: Distribution of FDI, by sector, 2002



Source: Government of Chile, Foreign Investment Committee.

Figure 1-7
Chile: Distribution of U.S. FDI, by sector, 2002



Source: Government of Chile, Foreign Investment Committee.

The U.S. direct investment position in Chile measured $11.7 billion in 2001 on a historical cost basis.[40] Chile historically has had a very small direct investment position in the United States. Chile's direct investment position in the United States has been less than $60 million since 1997.[41]

[40] The direct investment position is the value of direct investors' equity in, and net outstanding loans to, their foreign affiliates. For further information, see U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Detail for Historical-Cost Position and Related Capital and Income Flows, 2001," *Survey of Current Business*, Sept. 2002, p. 69; and table 16, pp. 93-94.

[41] U.S. Department of Commerce, Bureau of Economic Analysis, "Foreign Direct Investment in the U.S.," found at *http://www.bea.gov/bea/di/fdi-ctry.htm*, retrieved May 1, 2003.

CHAPTER 2
Overview of the U.S.-Chile FTA

Scope of the Chapter

This chapter provides a chapter-by-chapter summary of the agreement text,[1] as signed by the parties on June 6, 2003. Its particular focus is on market access, primarily the tariff commitments and rules of origin and their implications for this analysis. The nontariff provisions of the agreement are discussed in greater detail in subsequent chapters of the report. It should be noted that this summation of commitments is not an official interpretation by the U.S. Government of any part of the text of the agreement, and that the language of the FTA itself conveys the commitments of the parties.

Brief Summary of Treaty Provisions

Introduction

The U.S.-Chile FTA is largely modeled upon the North American Free Trade Agreement (NAFTA) and also includes commitments to observe certain WTO agreement obligations between the parties;[2] these bilateral obligations would exist separately even if the WTO agreement provision somehow ceased to apply. Other FTA commitments appear to be intended to deal with specific aspects of U.S. trade relations with Chile. The agreement indicates that provisions are still undergoing final legal review.

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[1] References in this section to chapters and articles are made to the cited provisions found at USTR, *http://www.ustr.gov/new/fta/Chile/text/index.htm* as signed June 6, 2003.

[2] To date the United States has implemented FTAs with Israel, Canada, Mexico and Jordan. In general, these agreements each establish a preferential regime to accord a precise range of tariff and trade benefits to particular goods or services of mutual interest or benefit to the parties and do not cover every possible product or commercial situation (as is the case with a multilateral agreement). Each of the agreements contains schedules of concessions, rules of origin, and other legal provisions tailored in scope to apply to qualifying trade between the parties. Commitments on services, investment, intellectual property, free movement of business persons, and similar matters are also included, insofar as they apply to trade between the parties.

Summary of Tariff Commitments

Under the proposed agreement[3] and its schedules of concessions, Chile would immediately eliminate its own duties on most originating U.S. exports and would eliminate such duties on other goods in stages, while the United States would implement a more complex schedule of concessions involving several categories of duty elimination on goods originating in Chile. Many Chilean goods would be guaranteed existing duty-free access or be made immediately free of duty; sensitive agricultural products would be subject to tariff-rate quotas, or TRQs[4] (there are mutual TRQs on beef, as a sensitive product); some apparel categories (mainly those goods of cotton or of man-made fibers) would receive reduced rates up to stated tariff preference levels; a few named rate lines would have stated commitments; and other products would receive staged duty reductions over 2, 4, 8, 10, or 12 years.

These tariff benefits will be given only to "originating goods" under the terms and rules of the agreement–namely, those comprising inputs *only* from the two parties or containing only de minimis third-country content, and those complying with rules of origin based largely on stated changes in tariff classification from foreign inputs to finished goods. Thus, not every "product of" a party or good shipped from one party to the other would receive preferential tariff treatment, even at the end of the transition period. Because of the complexity of the rules, and the need to know input sourcing and processing patterns for every product, FTA rules of origin are difficult to analyze, as discussed below.

Provisions on Matters of Primary Interest[5]

Chapter 3: National Treatment and Market Access for Goods

The agreement includes schedules of the duty treatment to be given by the parties, with related legal notes and staging timetables, which can be very briefly summarized. Industrial goods are primarily covered by the schedules themselves, other than certain computer-related and multimedia products (as to which somewhat different rules of

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[3] References in this section to chapters and articles are made to the cited provisions found at U.S. Trade Representative (USTR), "Chile Free Trade Agreement Consolidated Texts," found at *http://www.ustr.gov/new/fta/Chile/text/index.htm*, retrieved May 1, 2003.

[4] Two rate lines are minimally required in a TRQ, with one according a lower duty rate to imports up to a specified trigger quantity, and a second one according higher duty rates to all other shipments. It should be noted that an importer may choose to enter a shipment under either rate line, until the trigger quantity is filled, and that this might occur where unit values of the good in question vary by country, quality, time of entry, etc. In the Uruguay Round, as of Jan. 1, 1995, TRQs replaced prior absolute quotas imposed under section 22 of the Agricultural Adjustment Act (7 U.S.C. 624) or other measures. The over-TRQ duty rate is intended to be economically prohibitive, thus restricting imports to the in-quota or trigger quantity.

[5] References to chapters in this section are to the corresponding provisions of the agreement text.

origin and shipment apply), and most have relatively short duty elimination schedules. Chile also agrees that it would end its luxury tax on certain originating goods of the United States.

Agricultural goods

While some goods in this sector are affected only by ordinary duty staging and rules of origin, others are covered by tariff-rate quotas that would apply separately from Uruguay Round commitments of market access (that is to say, without changing the existing concessions).[6] Thus, with respect to imports from Chile into the United States, the previously agreed duty treatment under the Uruguay Round would continue and an additional quantity of certain goods would be accorded a measure of preferential access during the transition period. Both parties would provide specific treatment for particular goods such as sugar, dairy products, and meat.[7] In addition, the differing periods of harvesting certain products are taken into account in their scheduled treatment. Nonetheless, many goods would be accorded duty-free entry immediately, and others would be accorded staged reductions without limitation on quantity.

Textiles

In the agreement, most basic textile products would be accorded duty-free treatment by both parties, with a few products given staged reductions and with shipments of some apparel goods, notably those of cotton or of man-made fibers, controlled by tariff preference levels. This sector has a separate annex indicating rules of origin for the sector and setting out, for textile goods in chapters 42, 50 through 63, 70 and 94, the specific changes of tariff subheadings at the 6-digit international Harmonized System (HS) level that will be deemed to confer origin, along with chapter rules for some of the chapters. These tariff shifts are accomplished by means of processing or assembly operations in the country attempting to claim origin and involving third-country inputs or materials. The rule is applied by noting the classification of those inputs or materials and also the classification of the advanced or finished good that is shipped from one FTA party to the other, and verifying that the rules for the heading applicable to the latter good were demonstrated, as discussed below.

Chapter 4: Rules of Origin and Origin Procedures

The following two sections discuss two intrinsically linked topics for ease of general understanding; it also contains some explanation of the general definitions set forth in chapter 2 of the agreement text. The proposed definitions (whether general in coverage or related to origin) are relatively standard and are comparable to those of

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[6] These products were formerly the subject of import fees or quotas under section 22 of the Agricultural Adjustment Act (7 U.S.C. 624) prior to the Uruguay Round conversion of absolute quotas to tariff-rate quotas.

[7] Treatment of Chile's price bands with respect to certain agricultural products is discussed in chapter 1 in the context of Chile's trade policies, and in the sector analysis in chapter 5.

the NAFTA. To summarize, the duty benefits of the FTA would apply to originating goods, unless otherwise provided. Such goods are those wholly obtained or produced entirely in one or both parties, those meeting the requirements of the origin rules in the related annex, and those produced entirely in one or both parties from originating materials. Thus, as with the NAFTA, goods that contain only inputs attributable to the parties would be considered eligible without regard to tariff shifts or other criteria, and the rules of the annex apply to goods that contain inputs sourced from nonparties. Certain goods are considered to be originating materials for purposes of meeting the stated requirements. The origin chapter sets forth the rules and formulas for computing regional value content, with two types of computations, the build-down method and the build-up method, provided for some manufactured goods; these methods start at different points in the processing of the goods in question and either add or subtract particular inputs or components.

The chapter likewise deals with the verification and documentation of origin needed under the agreement. In essence, an importer can claim FTA benefits if he knows the good qualifies or if information in his possession so indicates, and he can be required to submit statements to establish qualification if asked by customs authorities. With such claims, the parties agree to give benefits to goods covered by such claims unless they learn the goods do not qualify, and agree not to punish importers who act in good faith or who correct the entry documents and pay necessary duties in one year or a longer period set by a party. Records must be kept for five years after entry to establish the origin of goods. Verification of origin may be based on requests for information, visits, and other methods; no certification would be required for goods with a customs value below $2,500. There are stated obligations relating to importations and to exportations to assist in enforcement of the overall rules framework. The parties must determine and publish common guidelines prior to implementation of the agreement, and these guidelines can be reviewed over time as the agreement operates.

Rules of Origin

The agreement deals with various aspects of the origin determination process and sets tests that relate to common commercial practices. First, a good that otherwise originates under agreement rules will not be disqualified because its accessories, spare parts or tools delivered with it do not originate, if the latter are in customary quantities, are invoiced with the good, and the good still meets any regional value test (treating the accessories, parts, or tools as non-originating). Second, the treatment of fungible materials is covered in a flexible manner, so that either physical segregation or inventory management (averaging, LIFO or FIFO) can be used to track them. Third, goods that contain de minimis foreign content that does not undergo the requisite tariff shifts (limited in the aggregate for all such materials to 10 percent of the adjusted value of the good, or higher than the 7 percent NAFTA standard, except for textiles and apparel where the 7 percent limit is applied) can also qualify as originating, though the value of such foreign content is still counted as non-originating when a regional value content test applies. A limited number of exceptions–all in the agricultural sector and relating primarily to commodities covered by U.S. tariff-rate quotas (such as dairy or sugar products)–cover goods not allowed to be entered under the de minimis rule. Fourth, goods of section XI of the tariff schedule are covered by the textile annex to the Market Access chapter, given the particular problems of multicountry assembly and processing as well as multicountry sourcing arising with goods of this sector. Fifth, indirect materials are treated as originating, and packaging materials and containers are generally to be disregarded in terms of their origin and thus do not affect the treatment of the goods concerned. Last, goods undergoing subsequent production in a non-party are ineligible for benefits of the agreement, though non-substantive handling (such as mere transfers between vessels) or operations to preserve the goods are generally ignored.

Annex II to the origin chapter contains product-specific rules at an HS heading or subheading basis, relying in part on the draft harmonized rules of origin being developed under the WTO Agreement on Rules of Origin (ROO). The notes to this annex provide that the most specific rule prevails over more general ones, so that if a subheading rule exists and the good meets it that good will be deemed originating. Originating materials are not covered by tariff shift rules. The annex then contains the heading-by-heading tariff shift and subsidiary rules. The rules must be examined in conjunction with the related tariff provisions in order to assess their effects, and some specific knowledge of the industries in each party, the types of processing they perform, and their sources of inputs is needed. Using normal trade relations (NTR) trade (goods considered to be "products of" Chile in the ordinary customs sense) overstates the likely volume of goods that would qualify for benefits under the FTA. Given that an FTA's intent is to eliminate duties on qualifying goods between the parties, the rules of origin come to play a significant part in determining which goods, and in what quantity, will receive such benefits.

Chapter 5: Customs Administration

The chapter on customs administration rests on the principle of cooperation and would establish a Free Trade Commission and a related Committee on Trade in Goods to administer the agreement. The parties commit to the publication and notification of rulings and other customs actions; to the administration of the agreement in a uniform, impartial, and reasonable manner; to provide advance rulings, review and appeal; and to set up contact points to facilitate communication. Provisions on customs issues such as confidentiality, penalties, release and security, risk analysis or targeting, and efficient customs clearance procedures and express shipments are likewise indicated Such regular review by customs administrations is also done with regard to NAFTA, as officials of the three governments (and especially their customs agencies) review existing procedures and new problems. In addition, the provisions deal with trade in used goods (wherein Chile would commit to eliminating its 50 percent surcharge on imports of used originating goods of the other party), duty waiver and refund programs, temporary admission of goods, duty drawback and deferral (with provisions apparently modeled upon those of NAFTA and intended to "equalize" advantages otherwise available due to differing external / NTR duty rates), and other customs matters. The United States would also agree to end its "user fee" on imports of originating goods of Chile. Other provisions cover "distinctive products" and their labeling, with specified distilled spirits given protected access. Agricultural export subsidies and marketing and grading standards are discussed, without substantive new commitments other than beef grading. Textiles and apparel are covered by specific provisions allowing bilateral emergency actions in response to agreement-related trade surges.

Chapter 6: Sanitary and Phytosanitary Measures

This chapter is intended to conform to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures. The parties agree to establish a bilateral committee to provide a forum for consultation and cooperation. In addition to reiterating the applicability of WTO commitments, the chapter provides that no dispute settlement actions can be taken under the FTA regarding these measures.

Chapter 7: Technical Barriers to Trade

This chapter covers technical barriers to trade, and is intended to conform to the WTO agreement on the same subject. It rests on enhanced cooperation and consultations, and establishes a bilateral committee to address issues of this subject. One particular provision of note is the listing of various conformity assessment mechanisms the parties agree to recognize in their bilateral trade. Transparency obligations specific to these measures are enumerated, including access by persons of each party in proceedings or reviews by bodies in the other; however, non-governmental standards bodies cannot be mandated to comply. The chapter establishes a Committee on Technical Barriers to Trade with responsibilities for implementing and administering the chapter and facilitating consultations between the parties. Such consultations are to be

considered as meeting requirements under the dispute settlement chapter where that set of procedures is invoked.

Chapter 8: Trade Remedies

Under this set of provisions, a party is authorized to impose a bilateral safeguard measure (by suspending staging or increasing a duty rate, not to exceed the most-favored-nation (MFN) level) when imports of an originating good of the other party constitute a substantial cause of serious injury or threat thereof to a domestic industry producing a like or directly competitive product. Notification of the other party and of the WTO is required, and parties must supply copies of public documents relevant to the investigations in such situations. A safeguard can be imposed for no more than three years, including extensions, and only one safeguard can ever be imposed on a particular originating good. At the end of the safeguard, the party must return the rate of duty to the level that would have applied without the safeguard. Notification and transparency are required, and compensation is mandated. Further, each party retains all rights and obligations of the WTO Agreement on Safeguards.

Separate provisions on special textile safeguards provide for bilateral emergency actions that would involve consultations, concessions, and compensation, on a basis subordinate to the WTO Agreement on Safeguards and WTO Agreement on Textiles and Clothing. As noted above, preferential tariff treatment (up to stated tariff preference levels) is accorded for non-originating cotton and man-made-fiber fabric goods and apparel provided for in chapters 52, 54, 55, 58, 60, 61, and 62 of the Harmonized Tariff Schedule of the United States (HTS). Verification procedures set out in the agreement will be implemented by Chile within two years of the agreement's entry into force.

Chapter 9: Government Procurement

Each party would be obliged to accord national treatment to goods, services, and suppliers of the other party. Advance notice would need to be given of intended procurement. The treaty provides for time periods, technical requirements, conditions and tendering procedures. Each party would provide for domestic review of supplier challenges and at the request of either party, a bilateral working group on government procurement shall be convened. The Agreement does not cover noncontractual agreements or any form of governmental assistance not specifically covered under this chapter, but does cover build-operate-transfer contracts and public works concession contracts and provides for monetary thresholds for coverage. Both parties have annexes of reservations and exceptions by government entity, goods and/or services. The provisions of this chapter are not limited to originating goods with regard to bilateral trade; origin would be determined on an NTR basis.

Chapter 10: Investment

Each party would be obliged to accord to investors of the other party and covered investments treatment no less favorable than that it accords to its own investors and

investments, i.e., national and MFN (known here as normal trade relations) treatment. The chapter provides that treatment of investors must be in accordance with customary international law, including fair and equitable treatment and full protection and security. Neither party could impose or enforce performance requirements to: export a given level or percentage of goods; achieve a given level or percentage of domestic content; purchase, use, or accord preference to goods produced or sold in its territory; relate the volume or value of imports to the volume or value of exports or to the amount of foreign exchange associated with such investment; transfer a technology or proprietary knowledge to someone within its territory; or control distribution from its territory. Likewise, neither party could require that the senior management of an enterprise of that party be of a particular nationality, but may require that a majority of the board of directors be nationals or residents. Each party must permit all transfers relating to a covered investment to be made freely and without delay.[8] Expropriation can occur only for a public purpose and must be non-discriminatory upon payment of prompt, adequate compensation in accordance with due process of law. In the event of an investment dispute, the claimant and respondent should initially seek to resolve the dispute by consultation and negotiation, which may include the use of non-binding third party procedures. Investment disputes may be submitted to arbitration. (The chapter has several subsections on dispute resolution and arbitration procedure and references the International Centre for Settlement of Investment Disputes.)

Chapter 11: Cross-Border Trade in Services

This chapter deals with cross-border trade in services and begins with an enumeration of the types of services covered by the agreement and the measures to which the chapter applies. Significantly, the measures covered by the agreement include those by national and subnational governments and also by non-government bodies, but not measures dealing with financial services, air services in most cases, government procurement, subsidies and grants. No obligation of employment is created, and the provisions do not apply to "services supplied in the exercise of governmental authority" (non-commercial and noncompetitive services). National and MFN treatment on covered services are guaranteed. Among the rules is the prohibition on any limit on the number of service suppliers, value, operations, or output. The agreement provides that the parties cannot require a local presence by a service provider. However, existing nonconforming measures are exempt from certain requirements.[9] The chapter

[8] Exceptions to this provision are possible for the application of laws relating to bankruptcy, securities, criminal offenses, financial reporting, and ensuring compliance with orders or judgments in judicial or administrative proceedings. An additional exception is contained in an annex concerning the application of the investment chapter to the provisions of DL 600, which specifies that transfers of proceeds from the sale of an investment made pursuant to a contract under DL 600 may still be subject to the requirement that one year must have elapsed from the date of initial investment. Chile's investment regime is discussed in more detail in chapter 6.

[9] Nonconforming measures are discussed in greater detail in chapter 6.

provides that regulations shall be developed and applied in a transparent manner, and that mutual recognition of authorization licensing or certification must not be applied in a discriminatory manner. There are provisions applicable to certain professions, notably to lawyers and engineers.

Chapter 12: Financial Services

The agreement would impose several specific obligations on the parties. It provides that each party will accord national treatment and MFN treatment to investors of the other party and grant market access for financial institutions without limitations on the number of financial institutions, value of transactions, number of service operations, or number of persons employed. Moreover, each party must permit cross-border trade in financial services and permit a financial institution of the other party to provide new financial services that it would permit its own institutions to provide without additional legislative action. Neither party is required to furnish or allow access to information related to individual customers or confidential information the disclosure of which would impede law enforcement, be contrary to the public interest, or prejudice legitimate commercial concerns. A party may not require financial institutions of the other party to hire individuals of a particular nationality or require more than a minority of the board of directors to be nationals or residents of the party. Existing nonconforming measures and exceptions are addressed. The parties agree that transparent regulations and policies are important and agree to publish in advance regulations of general application and to maintain or establish mechanisms to respond to inquiries from interested persons. Consultations and dispute resolution are discussed and cross referenced to the chapters on Investment and Dispute Settlement, but special dispute settlement provisions are provided for matters arising under this chapter; the agreement establishes a financial services committee to oversee this substantive area. There are annexes dealing with banking and other financial services, and with insurance and insurance-related services; branching and allowable activities are among the matters covered by these annexes.

Chapter 13: Telecommunications

The parties agree to ensure that enterprises of the other party would have access to and use of any public telecommunications transport network and service offered in its territory or across its borders. Such enterprises would be permitted to provide services to individual or multiple end users, connect leased or owned circuits with public communication networks, purchase or lease equipment, use public communication transport networks, and have access to network elements on a unbundled basis. Under the chapter, each party's telecommunications regulatory body must determine which network elements to make available in accordance with national law. Each party agrees to ensure that major suppliers in its territory provide interconnection for suppliers of the other party under non-discriminatory terms, at any technically feasible point, in a timely fashion, and of no less favorable quality than that provided by such major supplier for its own services. The agreement would apply to submarine cable systems and landing stations where provided under national law and regulation. Each

party must make licensing criteria, procedures, terms and conditions, and normal time frames publically available; each must also ensure that its national telecommunications regulatory body maintains appropriate procedures and authority to enforce domestic measures relating to the obligations set out in this chapter and provide for dispute resolution. The provisions provide clearly that the parties are not agreeing to compel enterprises to provide certain services, and the parties retain their right to prohibit persons from operating private networks. In addition, the parties agree to try to avoid restricting suppliers of these services in their choice of technologies.

Chapter 14: Temporary Entry for Business Persons

In this chapter, each party agrees to grant temporary entry to business persons (including visitors, traders and investors, intra-company transferees and professionals) who are otherwise qualified for entry under applicable measures relating to public health and safety and national security and maintain or establish points of contact or other mechanisms to respond to interested persons regarding regulations. The agreement establishes a subcommittee on temporary entry to review the operation of this chapter. Under these provisions, the United States would grant up to 1,400 applications per year for temporary business entry for persons from Chile. An appendix to the chapter sets out minimal education standards for certain professions and other criteria for evaluating which persons are covered and on what basis.

Chapter 15: Electronic Commerce

Under this chapter, a party cannot apply customs duties or other duties, fees or charges on or in connection with the importation or exportation of digital products by electronic transmission. Also, a party must not accord less favorable treatment to some digital products that it accords to other like digital products on the basis on the nationality of the author, performer, producer, developer or distributor of the products or the grounds that the digital products were created, stored, transmitted or published outside its territory. Nonconforming measures have a one-year phase-out period. Again, provisions for additional cooperation between the parties are included.

Chapter 16: Competition Policy, Designated Monopolies, and State Enterprises

Under the chapter, each party must adopt or maintain competition laws to proscribe anticompetitive business conduct and also take appropriate action with respect to such conduct. The parties must establish or maintain an authority responsible for the enforcement of such measures. A party may designate a monopoly or establish or maintain a government enterprise. The agreement provides for transparency, information requests and consultations, but bars access to FTA dispute settlement as to many of the chapter's provisions in favor of mechanisms under the WTO or perhaps an arbitration treaty.

Chapter 17: Intellectual Property Rights

Under this chapter each party agrees to ratify or accede to the Patent Cooperation Treaty (1984), the International Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite; the International Convention for the Protection of New Varieties of Plants (1991); and the Trademark Law Treaty (1994). Each party further agrees to undertake reasonable efforts to ratify or accede to the Patent Law Treaty, the Hague Agreement Concerning the International Deposit of Industrial Designs (1999), and the Protocol relating to the Madrid Agreement Concerning the International Registration of Marks (1989). National treatment and transparency are required.

Trademarks, for purposes of this agreement, are defined as including sound marks, collective marks, and certification marks and may include geographical marks and scent marks. Parties agree to provide that trademark applications can be opposed. Article 20 of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is cited for use in dealing with common names of products. The owner of a registered mark is given the exclusive right to prevent third parties not having the owner's consent from using identical or similar signs where such use would result in a likelihood of confusion, with limited exceptions such as fair use of descriptive terms. The parties must establish procedures to prevent or cancel registration of a mark that is identical or similar to a well-known trademark. The Paris Convention is cited for the protection of marks not identified with well-known trademarks. In addition, the parties must adopt procedures for settling disputes involving domain names on the internet. The agreement sets out procedures for the application/petition for geographical indications.

Specific provisions of the Berne Convention are cited for the protection of copyrights and related rights. Authors, performers, and producers have exclusive rights to authorize or prohibit all reproductions and all communications to the public of their works. The term of protection of a work must be not less than the life of the author and 70 years after the author's death or not less than 70 years from the end of the calendar year of the first authorized publication of the work, if the term in not based on the life of a natural person. Related rights are extended to performers and producers of phonograms as regards physical copies of their works. The knowing circumvention of effective technological measures to protect works, and trafficking in devices intended to circumvent such measures will result in criminal and civil liability. Certain noninfringing good faith activities are exempt from sanctions. Removing or altering rights management information or trafficking in works from which the rights management information has been removed or altered will likewise result in criminal and civil liability. Encrypted program-carrying satellite signals are protected by criminal and civil sanctions.

Each party would make patents available for any invention, whether a product or process, in all fields of technology. The parties agree to undertake reasonable efforts, through a transparent and participatory process, to propose legislation for patent protection of plants within four years of entry into force of the agreement. Limited

exceptions to exclusive patent rights are allowed but may not unreasonably prejudice the legitimate rights of the patent owner. Use of a subsisting patent of a pharmaceutical product by a third party must be limited to meeting requirements for marketing approval or sanitary permit. Export of such pharmaceutical products would be limited to meeting marketing approval or sanitary permit requirements. Each party agrees to adjust patent terms to allow for unreasonable delays encountered in granting the patent. The parties cannot use public disclosure by the applicant within 12 months of application to bar patentability. Special provisions apply to patents for pharmaceutical or agricultural products if a party requires the submission of undisclosed information as part of the application process.

Laws and regulations pertaining to the enforcement of intellectual property rights must be published and made publicly available. Each party is directed to publicize information on its efforts to provided effective enforcement. In civil, administrative, and criminal proceedings each party must provide for a presumption that the natural person or entity indicated as the author is the designation rights holder. In civil judicial proceedings, the rights holder may request destruction of goods that have been found to be pirated or bear counterfeit marks, except in exceptional cases. Donation to charity is only allowed with the permission of the right holder and in the case of trademark goods, with the removal of the trademark. Judicial authorities must be given the authority to order the infringer to identify third parties involved in the production or distribution of the infringing goods or services and may fine or imprison persons who fail to abide by valid court orders. The applicant for any provisional measure may be required to provide evidence security to protect the defendant.

In dealing with border authorities, the applicant must provide adequate evidence to show prima facie infringement and may be required to provide security. The competent authorities may initiate border measures ex officio and take action against goods passing in transit. Goods determined to be pirated or bearing counterfeit marks must be destroyed. The simple removal of a counterfeit trademark will not be considered sufficient to permit release of goods into channels of commerce. Parties cannot allow the export of goods bearing counterfeit marks or pirated goods.

Each party must provide criminal procedures and penalties at least to cases of willful trademark counterfeiting or copyright or related rights piracy on a commercial scale. Further, the parties must provide legal incentives for internet service providers to cooperate with rights holders and limitations on liability. The parties must also establish appropriate procedures through open and transparent processes for effective notifications of claimed infringement and counter-notification.

The time frames established for full implementation of the obligations of this chapter are two years from entry into force for trademarks, geographical indications, patents, and some aspects of copyright protection; 4 years from entry into force for enforcement, border measures, related rights; and five years from entry into force for effective technological measures.

Chapter 18: Labor

The parties reaffirm their obligations as members of the International Labor Organization and shall strive to ensure that their respective domestic laws are consistent with international standards and will strive to improve those standards. They would commit to effective enforcement of labor laws "in a manner affecting trade between the parties"; that is, no broader obligation in this respect would be created. Each party agrees to ensure access to entities charged with enforcement and promote public awareness of labor laws. The chapter establishes a Labor Affairs Council to review issues raised under the agreement and to facilitate consultations. Either party may request consultations; application of the chapter on dispute resolution is limited to the effective enforcement of labor laws by a party, insofar as that affects trade between the parties, and can occur only after consultations under the auspices of the Labor Affairs Council. No other dispute settlement on this subject can be pursued under the agreement. An annex to this agreement establishes a labor cooperation mechanism to address, among other issues, child labor.

Chapter 19: Environment

Each party is obliged to ensure that its environmental protection laws provide for high levels of protection and strive to improve those laws, provide appropriate and effective remedies and sanctions for violations of environmental protection laws, and provide opportunities for public participation. However, the obligation of effective enforcement is linked, as with those on labor, to trade between the parties rather than being broad new commitments. The chapter creates an Environmental Affairs Council to pursue cooperative environmental activities, assist in information sharing, and provide for environmental consultations. Environmental disputes relating to the parties' enforcement of environmental laws, insofar as it affects trade between the parties, must first be addressed in consultations under this chapter prior to any action under the chapter on dispute settlement; no other dispute settlement on this subject can be pursued under the agreement. The chapter is notable for the many provisions dealing with increased cooperation in environmental matters.

Chapters 20 and 21: Transparency and Administration

To reiterate the parties' commitment to transparency, advance notice, and access to both information and review, separate obligations are included on interparty communication, publication, and notification. Both administrative proceedings and review and repeal rights are provided. As noted above, the parties agree to establish a Free Trade Commission to handle all matters arising under the agreement. Issues of "transparency" are addressed, starting with the official contact points in each government and the publication of laws, regulations, procedures, and administrative rulings. Each party is required to provide for review and appellate processes. General provisions on taxation, disclosure of information, and definitions of terms used in the agreement are set forth in this chapter. The FTA would enter into force 60 days after the exchange of written notifications that all respective internal arrangements have been fulfilled, unless otherwise agreed.

Chapter 22: Dispute Settlement

In a dispute which arises under this agreement, another FTA or the WTO agreement, unless otherwise provided, the complaining party would be entitled to select the forum, which must then be used to the exclusion of all others. Either party may request consultations, and alternative dispute resolution provisions are included. The Free Trade Commission can intervene in matters arising under the chapter, and procedures to request an arbitral panel, panel selection and rules of procedure for the selected panel are provided. If the final report of a panel is not implemented, a suspension of benefits under the agreement may result. Remedies for failure to enforce domestic labor laws or domestic environmental laws are provided for in a separate article. The Free Trade Commission must review the operation of certain provisions of this agreement not later that five years after the agreement enters into force or within six months after benefits have been suspended or monetary assessments have been imposed in five proceedings, whichever occurs first. Specific provisions deal with allegations of nullification and impairment of rights under certain agreement chapters and the express availability of dispute settlement.

Chapter 23: General Exceptions

The chapter contains provisions exempting matters dealing with essential national security; health and welfare for humans, plants, and animals; taxation; and balance of payments measures on trade in goods.

Chapter 24: Final Provisions

The text includes mechanisms for amendments, adjustment to WTO amendments, entry into force, and termination. The agreement would enter into force 60 days after the exchange of notifications of signature, ratification, and implementation; termination would occur 180 days after delivery of a notice. English and Spanish texts of the agreement are declared equally authentic.

CHAPTER 3
Review of Literature

Introduction

This chapter reviews the economic literature that is relevant to a U.S.-Chile FTA. Prior to reviewing the studies assessing the estimated impact on the United States of a U.S.-Chile FTA, a discussion is presented on the conceptual issues regarding FTAs. The final section discusses the estimated impact on the United States of actual or potential FTAs in which Chile is a member.

General Effects of Trade Agreements

Studying the economic impact of an FTA entails investigating static effects such as trade creation and trade diversion as well as terms of trade. In addition, issues related to scale effects and nonquantifiable effects have to be considered. A discussion of these issues is presented below.

Static Effects: Trade Creation and Trade Diversion

Trade liberalization can in general be undertaken in two different manners. First, it can be based on the "most favored nation" (MFN) principle where better market access is granted to all trading partners equally. The classical "gains from trade" argument asserts that such trade liberalization would help consumers to have access to more goods at lower prices, and producers to have more sources for their inputs and more markets for their products (for which they may receive higher prices). Second, it can be done in a preferential way, with better market access granted to one partner but not to others. An FTA, such as the one between the United States and Chile, is an agreement in which preferential liberalization is undertaken reciprocally between participating countries.

To the extent that FTAs are designed to liberalize trade, they are likely to engender economic gains similar to those of an MFN liberalization. However, given their discriminatory nature, studying the economic impact of FTAs involves additional issues that are not present in a MFN liberalization. The traditional way to study an FTA is to

categorize the FTA-induced trade expansion into trade creation or trade diversion.[1] Trade creation improves welfare and occurs when partner country production displaces higher cost domestic production. Trade diversion reduces welfare and occurs when partner country production displaces lower cost imports from the rest of the world.[2] The combined effect of an FTA on intra-bloc trade will then reflect trade creation as well as trade diversion. Whether the trade-creation (welfare enhancing) or the trade-diversion (welfare reducing) effects dominate depends on a variety of factors (including external trade barriers, cost differences, and relative supply and demand responses and other domestic policies). From that point of view, the overall welfare impact of an FTA is not unambiguous, making its determination is an empirical issue.

Static Effects: Terms of Trade

The impact of an FTA also can be studied from a "terms of trade" (i.e., the price of exports relative to the price of imports) viewpoint. If the participating countries are large enough to be able to affect import and export prices by their actions, the establishment of an FTA is likely to affect the terms of trade of a given FTA member in three different manners. First, by increasing the demand for its partner's products, the country's own preferential trade liberalization may increase the (pre-tariff) price of its imports from the partner country and leading to a deterioration in its terms of trade. Second, tariff reduction by the partner country could increase the demand (and the price) for the FTA member's exports and improve its terms of trade. Finally, the decreased demand for imports originating from nonmember countries tends to decrease their price and improve the FTA members' terms of trade. Therefore, the impact on economic welfare will depend on whether the terms of trade have improved or deteriorated for a given partner country.

Scale Effects

To the extent that FTAs integrate (and, hence, enlarge) markets, some would argue that they offer firms an opportunity to exploit economies of scale (or increasing returns to scale) and to lower costs by expanding production. Moreover, by increasing the intensity of competition, an FTA can potentially induce firms to make efficiency improvements in order to raise productivity levels.[3] It has, for instance, been pointed out that firms in Canada have long argued that U.S. market access would enable them

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[1] The seminal works on this issue are J. Viner, *The Customs Union Issue*, New York: Carnegie Endowment for International Peace, 1950 and J. Meade, *The Theory of Customs Union*, Amsterdam: North Holland, 1955.

[2] Losses from trade diversion occur when lost tariff revenue associated with changes in the pattern of trade exceeds efficiency gains from the decline of the prices paid by consumers. These losses will be larger the higher the FTA's margin of preferences (i.e., the trade barriers facing nonmembers relative to intra-FTA barriers).

[3] A closely related gain comes from increased competition as firms are induced to cut prices and to expand sales, benefitting consumers as the monopolistic distortion is reduced.

to exploit economies of scale, and that this access would allow them to increase their exports not only to the countries in North America, but also to the rest of the world.[4] Increasing returns also affect the volume of trade in inputs and intermediate goods used by increasing return industries because as firms expand production and exploit economies of scale, they need to purchase more inputs and intermediate goods. These goods may be imported from inside or outside the FTA.

The enlarged FTA market may also attract investment, including foreign direct investment (FDI), especially investment for which market size is important. It should be noted that the higher the FTA's margin of preference, the more attractive it will be as an FDI destination. In the long run, changes in trade flows can lead to substantial changes in the location of production between member countries of an FTA. These relocations may be determined by comparative advantage (i.e., the removal of barriers might lead each country to produce the goods that it is good at). Alternatively, sectors with strong backward or forward linkages may all relocate into one country and take advantage of the preferential access to cater to the whole FTA market from there. These agglomeration effects are stronger in the presence of economies of scale. The impact of an FTA will depend on the increased level of economic activity within the FTA and on the distribution of the effects among members.

Political Effects

In addition to the generally quantifiable effects discussed so far, regional integration can provide other potential benefits that are more difficult to evaluate. A World Bank publication discusses a variety of additional effects (or classes of effects) that may result from regional integration agreements.[5] One such effect, for instance, is enhanced security (either against nonmembers or between members).[6] Another potential benefit is that by forming a unit and pooling their bargaining power, FTA members can negotiate more efficiently in international forums. Regional integration can also be useful in "locking in" domestic (trade or other policy) reforms by raising the cost of policy reversal. Another possible gain is the increased possibilities for cooperation in environmental or technological assistance projects.

Table 3-1 illustrates the territory in which economists tend to focus their analytical efforts. It shows the limited area where effects of trade policy are discernible. A cell marked "yes" indicates that the given effect of the given policy is generally measurable (or can be modeled in a simulation) and/or has been measured. Note that these occur mainly in the static economic effects. The fact that relatively few cells are marked as measurable does not mean that other effects are not important. By focusing attention on a selected number of FTA effects, analysts provide important insights into specific aspects of trade agreements, but it is entirely conceivable that other nonquantifiable effects dominate.

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[4] H.J. Wall, "NAFTA and the Geography of North American Trade," *Federal Reserve Bank of St. Louis Review*, vol. 85, No. 2, Mar./Apr. 2003.

[5] The World Bank, *Trade Blocs*, New York: Oxford University Press, 2000, p. 66.

[6] For more on this, see Maurice Schiff, and L. Alan Winters. "Regional Integration as Diplomacy." *World Bank Economic Review*, 1998, 12(2): 271–96.

Table 3-1
Quantifiable FTA effects

Effects	Quantifiable
Static economic effects:	
Trade creation and diversion	Yes
Terms of trade	Yes
Scale effects:	
Pro-competitive effects	Some
Efficiency	Some
Investment (including FDI)	Yes
Industrial location	Some
Political effects:	
Enhanced security	No
Increased bargaining power	No
Locking in reforms	No
Cooperation	No

Source: Compiled by Commission Staff

Impact on the United States of the U.S.-Chile FTA

Given the low tariff levels and relatively small bilateral trade and investment flows, a priori economywide effects of trade liberalization on the United States resulting from the U.S.-Chile FTA are expected to be small.[7] A small number of studies have directly assessed the impact on the United States of a U.S.-Chile FTA.[8]

Several authors provide more qualitative, less quantitatively robust assessments of the U.S.-Chile FTA. Hornbeck, for example, lists major U.S. exports to and imports from Chile in order to provide a cursory assessment of the potential impact on U.S. producers of the U.S.-Chile FTA.[9] Based on a comparison of leading import items and their tariff rates, most of which receive zero duty due to most-favored nation (MFN) or

[7] U.S.-Chilean bilateral trade and investment flows and Chile's trade and investment regime are discussed in chapter 1.

[8] These studies assessed a theoretical U.S.-Chile FTA, and were not based on analysis of the actual negotiated agreement. Section 2104(f)(3) requires the Commission to review available economic assessments regarding the agreement, to provide a description of the analyses used and conclusions drawn in such literature, and to discuss of areas of consensus and divergence among reviewed literature, including those of the Commission. The Commission notes that it conducted three classified studies at the request of the USTR concerning a potential U.S.-Chile FTA during the last three years. USITC, *U.S.-Chile FTA: Probable Economic Effects on the Economy as a Whole of Eliminating Tariffs on Certain Agricultural Products*, Investigation No. 332-442, September 2002; *U.S.-Chile Free Trade Agreement: Potential Economywide and Selected Sectoral Effects*, Investigation No. 332-434, January 2002; and *U.S.-Chile Free Trade Agreement: Advice i*, Investigation No. 332-430; October 2001. Consequently, for the purpose of this report, the Commission discussion consists only of external economic assessments and the Commission's present study.

[9] J.F. Hornbeck, "The U.S.-Chile Free Trade Agreement: Economic and Trade Policy Issues," Congressional Research Service, Report for Congress No. RL31144, Feb. 3, 2003.

Generalized System of Preferences (GSP) status, Hornbeck concludes that, "the major U.S. imports from Chile (copper, salmon, grapes, wine, wood) had zero tariffs already, suggesting that the adjustment costs to import-competing firms would be low."[10] Similarly qualitative, the National Association of Manufacturers (NAM) notes that the United States has lost 6 percentage points of the Chilean import market since 1997, while countries that have entered into agreements with Chile since 1997 have increased import market penetration by 8 percentage points. NAM points to the lack of an FTA with Chile as a significant source, as the United States did not suffer this level of loss in the rest of South America. By extrapolating the pre-1997 U.S. share of the Chilean import market to 2001, the NAM estimates that, due to a lack of a free trade agreement with Chile, American exporters lost $800 million in sales in 2001, representing a loss of over 10,000 job opportunities.[11] The wheat, corn, soybeans, paper, plastics, paints and dyes, fertilizers, heating equipment, and construction equipment sectors were identified as having suffered the most significant losses.[12] In a similarly qualitative assessment of the impact of a U.S.-Chile FTA on U.S. fruit and vegetable trade, Stanton finds that Chilean traded fruits and vegetables are largely complementary in product and season to the United States reducing potential displacement of U.S. producers.[13] Stanton also notes that given Chile's relatively larger nontariff barriers, the balance of sectoral trade should shift toward the United States, and that an FTA would provide significant opportunities for U.S. horticulture investment and penetration into higher-value food products; and "U.S. experience, technology, and negotiating power could afford a comparative advantage in capturing" the horticulture market.[14]

Brown, Deardorff, and Stern (Brown et al.) estimate the impact on the United States of a U.S.-Chile FTA in a quantitative study. The authors use the Michigan Model, a computable general equilibrium (CGE) model, which has 20 countries/regions and 18 sectors, and incorporates features of "New Trade Theory," including monopolistic competition, increasing returns to scale, and product variety effects.[15] The model incorporates full Uruguay Round implementation, and Brown et al. run four simulations: agricultural products liberalization, industrial products liberalization, services liberalization, and all of the above; however, only the fourth simulation is reported.[16] Brown et al. also note that their computational analysis does not take into account not easily quantifiable features of the various FTAs, such as the negotiation of

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[10] Ibid., p. 2.

[11] National Association of Manufacturers, "Absence of Chilean Trade Agreement Costing U.S. over $800 Million per Year," Oct. 2001.

[12] Ibid.

[13] Julie Stanton,"Potential Entry of Chile into NAFTA: Are There Lessons from U.S./Mexican Fruit and Vegetable Trade?" *Review of Agricultural Economics*, vol. 21, No. 1, spring/summer 1999, p. 122.

[14] Ibid.

[15] Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," Research Seminar in International Economics, Discussion Paper No. 490, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, Dec. 16, 2002, p. 2.

[16] Ibid., p. 10.

specific rules, or rules of origin.[17] The estimated welfare impact on the United States of a U.S.-Chile FTA is 0.05 percent of GNP ($4.4 billion).[18] Although the authors do not report the disaggregated effects of the various liberalization scenarios, key factors in the Michigan Model results include the estimates of services liberalization and the assumption of increasing returns to scale. Brown et al. also assess the sectoral employment effects of the agreement. Of the 18 sectors, only 6 sectors experience employment contraction (table 3-2). Overall estimated employment effects are negligible as no sector experiences contraction or expansion greater than 0.03 percent of sector employment.

Table 3-2
Sectoral employment effects on the United States of a U.S.-Chile FTA, estimates by Brown et al.

Sector	Employment	Number of workers
	Percent change	
Agriculture	-0.02	-698
Mining	0.00	1
Food, beverages, and tobacco	-0.01	-203
Textiles	0.01	173
Wearing apparel	-0.02	-170
Leather products and footwear	-0.03	-37
Wood and wood products	0.00	91
Chemicals	0.02	518
Nonmetallic mineral products	0.01	40
Metal products	0.00	-73
Transportation equipment	0.02	378
Machinery and equipment	0.02	518
Other manufactures	0.00	91
Electricity, gas, and water	0.00	78
Construction	0.00	125
Trade and transport	0.00	500
Other private services	0.00	-1,422
Government services	0.00	90

Source: Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," Research Seminar in International Economics, Discussion Paper No. 490, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.html,* table 8, Dec. 16, 2002.

[17] Ibid., p. 14-15.
[18] Ibid., table 7.

Impact on the United States of Other Actual or Potential Chile FTAs[19]

As discussed in chapter 1, Chile maintains a network of FTAs with numerous trading partners. Harrison, Rutherford, and Tarr (Harrison et al.) refer to this policy as "additive regionalism," and describe it as "the process of sequentially negotiating bilateral free trade agreements with all significant trading partners."[20] This trade policy has prompted several comprehensive CGE based studies which estimate the impact on the United States of agreements which would include Chile, such as potential expansion of the North American Free Trade Agreement (NAFTA) as well as the Free Trade Area of the Americas (FTAA) currently being negotiated by the democratic countries of the Western Hemisphere.

Scollay and Gilbert analyze the economic impact of a number of potential free trade agreements and various alternative scenarios. Scollay and Gilbert's analyses are based on the Global Trade Analysis Project (GTAP) CGE equilibrium model, which includes 22 countries/regions and 21 sectors, and assumes perfect competition, constant returns to scale, and product differentiation by country of origin (i.e., Armington assumptions).[21] Data are adjusted to incorporate full Uruguay Round and AFTA[22] implementation. However, data limitations do not allow services liberalization. Although the authors do not estimate the impact on the United States of a U.S.-Chile FTA, they estimate a number of agreements' impacts on the United States that would include Chile. As table 3-3 illustrates, most of the potential FTAs have a negligible economywide impact on the United States. Certain agreements which include a large number of trading partners, such as APEC, FTAA, or Pacific 5, are generally expected to affect U.S. exports and imports by no more than 10 percent, but Chile's economy would be very small component of such agreements.

Harrison et al. analyze a number of trade policy options for Chile.[23] The authors use the Rutherford model[24] which includes 11 countries/regions and 24 sectors, and assumes constant returns to scale, perfect competition, and product differentiation by country of origin (i.e., Armington assumptions). Data also include tariff equivalents of

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[19] For a comprehensive discussion of Chilean trade policy, see Maurice Schiff, "Chile's Trade Policy: An Assessment," Central Bank of Chile, Working Paper No. 151, Apr. 2002.

[20] Glenn W. Harrison, Thomas F. Rutherford, and David G. Tarr, "Trade Policy Options for Chile: The Importance of Market Access," *The World Bank Economic Review*, vol. 16, No. 1, Jan. 2002, p. 49.

[21] Robert Scollay and John P. Gilbert, *New Regional Trading Arrangements in the Asia Pacific?*, Washington, DC: Institute For International Economics, Policy Analyses in International Economics No. 63, May 2001, p. 62.

[22] AFTA is the ASEAN (Association of South East Asian Nations) Free Trade Area, and in this study includes Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

[23] Glenn W. Harrison, Thomas F. Rutherford, and David G. Tarr, "Trade Policy Options for Chile: The Importance of Market Access," *The World Bank Economic Review,* vol. 16, No. 1, January 2002; and Harrison, Glenn W., Thomas F. Rutherford, and David G. Tarr, "Chile's Regional Arrangements and the Free Trade Agreement of the Americas: The Importance of Market Access," World Bank, Working Paper No. 2634, July 17, 2001.

[24] The Rutherford model is a model developed by Thomas Rutherford that uses the GTAPinGAMS data system and GTAP data.

Table 3-3
Impact on the United States of actual or potential FTAs including Chile, estimates by Scollay and Gilbert

Agreement	Change in welfare *(percent of initial GDP)*	Change in exports *(export values FOB; percent change from base)*	Change in imports *(import values CIF; percent chane from base)*
Pacific 5[1]	0.02	1.42	1.32
Japan-Chile	0.00	-0.02	-0.02
South Korea-Chile	0.00	-0.02	-0.01
Singapore-Chile	0.00	0.00	0.00
New Zealand-Chile	0.00	0.00	0.00
New Zealand-Singapore-Australia-Chile	0.00	-0.03	-0.02
APEC[2] MFN basis	0.01	7.16	6.56
APEC preferential basis	-0.01	7.26	6.69
APEC MFN (excl. United States)	0.06	1.58	1.43
APEC MFN (excl. United States and Japan)	0.05	1.34	1.20
FTAA[3]	0.06	3.69	3.43
APEC MFN and FTAA	0.07	9.59	8.82
APEC preferential basis and FTAA	0.06	10.02	9.26
Western Pacific Bloc[4] and FTAA	0.01	2.29	2.10

[1] Pacific 5 is Australia, Chile, New Zealand, Singapore, and the United States.

[2] APEC members are: Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Peru, the Philippines, Russia, Singapore, Chinese Taipei, Thailand, the United States, and Vietnam.

[3] FTAA is Free Trade Area of the Americas.

[4] Western Pacific Bloc is ASEAN, Australia, New Zealand, Japan, South Korea, China, Hong Kong, and Taiwan.

Source: Robert Scollay and John P. Gilbert, *New Regional Trading Arrangements in the Asia Pacific?*, Washington, D.C.: Institute For International Economics, Policy Analyses in International Economics No. 63, May 2001, tables 3.2-3.5.

U.S. nontariff barriers, and is supplemented with domestic distortion data for Chile.[25] The authors also perform sensitivity analyses by simulating the scenarios with low and central elasticity of substitution between imports from different regions, and elasticity of substitution between aggregate imports and domestic production.[26] The estimated impacts on the United States are very small, with only the FTAA (using central elasticity estimates) impacting U.S. economic welfare more than 0.1 percent (table 3-4). Harrison et al. comment that the relatively small impact is primarily due to Chile's size, and that Chile's trade pattern is sufficiently different from its partners for the regional agreements to have substantial impact on large countries, such as the United States.[27] The estimated economic impact levels, as well as general direction, can depend on the elasticity estimates.

[25] Ibid., p. 54.

[26] The low and central elasticity estimates for substitution between imports from different regions are 8 and 30 respectively; and low and central elasticity estimates for substitution between aggregate imports and domestic production are 4 and 15, respectively. Ibid, p. 56.

[27] Ibid., p. 70.

Table 3-4
Impact on U.S. welfare of Chile's FTAs, estimates by Harrison et al.

Elasticity	Mercosur[1]	NAFTA[2]	NAFTA & Mercosur	FTAA	NAFTA, Mercosur & EU	NAFTA, Mercosur, EU & rest of South America[3]
			Percent of GDP			
Central . . .	0.00	0.00	0.00	0.11	0.00	0.00
Low	0.00	0.01	0.00	0.08	0.00	0.00
			Millions of 1995 U.S. dollars			
Central . . .	-7	51	-29	6,506	138	60
Low	-24	306	231	4,708	59	-11

[1] Mercosur members are Argentina, Brazil, Paraguay, and Uruguay.

[2] NAFTA members are the United States, Canada, and Mexico.

[3] Rest of South America except for Chile, Argentina, and Brazil

Source: Glenn W. Harrison, Thomas F. Rutherford, and David G. Tarr, "Trade Policy Options for Chile: The Importance of Market Access," *The World Bank Economic Review*, vol. 16, No. 1, Jan. 2002, tables 4 and 5, pp. 71-72; and "Chile's Regional Arrangements and the Free Trade Agreement of the Americas: The Importance of Market Access," World Bank Working Paper No. 2634, July 17, 2001, tables 6-8.

In addition to estimating the impact on the United States of a U.S.-Chile FTA, Brown et al.[28] also assess the potential impact on the United States of other FTAs.[29] Of the simulated agreements which would include Chile, the largest impact would result from an APEC FTA (table 3-5). All scenarios, except for the Mexico-Chile FTA, result in positive estimated welfare effects for the United States. Estimated welfare impacts on the United States of the three bilateral agreements are very small, less than 0.01 percent of U.S. gross national product (GNP).[30]

In the earliest Brown et al. study reviewed here, the authors conduct a comprehensive assessment of Chile's possible accession to NAFTA. The authors use the Michigan Model with 1990 base year data, and include 9 countries/regions and 29 sectors. They also incorporate liberalization of nontariff barriers (such as tariff surcharges, variable levies, and minimum customs valuation), as well as an estimated impact on foreign direct investment. The first four scenarios include Brown et al.'s scale estimates

[28] See discussion in above section for model overview.

[29] Brown, Deardorff, and Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," Research Seminar in International Economics, Discussion Paper No. 490, Dec. 16, 2002; Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Impact on NAFTA members of Multilateral and Regional Trading Arrangements and Initiatives and Harmonization of NAFTA's External Tariffs," Research Seminar in International Economics, Discussion Paper No. 471, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, June 15, 2001; and Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Computational Analysis of the Accession of Chile to the NAFTA and Western Hemispheric Integration," Research Seminar in International Economics, Discussion Paper No. 432, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, Oct. 16, 1998.

[30] GNP and GDP are two standard measures of the total market value of all final goods and services produced by a country in a given year. GDP is the sum of the market values of all final goods and services that are produced in a country by domestic and foreign owned firms. It does not include net income from the activities of nationals abroad. In contrast, GNP is GDP plus the income accruing to domestic residents from investments abroad less income accruing to foreign residents from investments in domestic firms.

Table 3-5
Welfare impact on the United States of actual or potential agreements including Chile, estimates by Brown et al.

Region	Sshare of GNP	Value
	Percent	*Billion dollars*
NAFTA-Chile	0.05	4.41
APEC FTA	2.69	244.25
WHFTA[1]	0.62	55.85
Japan-Chile	0.00	0.05
Canada-Chile	0.00	0.00
Mexico-Chile	-0.00	-0.03

[1] WHFTA is the Western Hemisphere Free Trade Agreement, and is the authors' approximation of the Free Trade Area of the Americas which combines the United States, Canada, Mexico, and Chile with an aggregate of other Caribbean and Central/South American countries in the model.

Source: Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," Research Seminar in International Economics, Discussion Paper No. 490; and "Impact on NAFTA Members of Multilateral and Regional Trading Arrangements and Initiatives and Harmonization of NAFTA's External Tariffs," Research Seminar in International Economics, Discussion Paper No. 471; both found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, Dec. 16, 2002, and June 15, 2001, respectively.

used to simulate increasing returns to scale. In the last two scenarios, Brown et al. conduct sensitivity analysis by incorporating Tybout and Westbrook's[31] generally lower scale estimates into the Michigan Model (table 3-6). In general, the economywide welfare impacts on the United States of the various scenarios are relatively small, less than 0.1 percent of U.S. GNP. In all scenarios, the United States is expected to benefit from the FTAs. Because the model includes increasing returns to scale, it is possible for both labor and capital owners to experience an increase in returns, albeit negligible in these scenarios. A commonly posited effect of a U.S.-Chile FTA would be the reduction in Chile's country risk premium and decline in its cost of capital which could result in increased foreign direct investment flows into Chile.[32] Consequently, Brown et al. run a simulation that assumes an FTA is accompanied by increased investment flows which increase Chile's capital stock by 5 percent.[33] Although Brown et al. note that simulation results indicate that the return to capital in Chile rises relative to the return to capital in other countries which could foster increased investment into Chile, the authors do not specifically provide a basis for the choice of 5 percent. The increase in Chile's foreign direct investment inflows does not significantly change the impact on the United States relative to the other simulated scenarios. Although the authors note that the sensitivity analysis using Tybout and

[31] Brown et al. note that Tybout and Westrook have criticized applied general equilibrium estimates which include increasing returns to scale for overstating the gains due to the realization of economies of scale, and that Tybout and Westbrook's empirical estimates of available scale economies for Chile, Mexico, and Canada suggest that the Michigan Model "significantly overstates" the elasticity of the average cost curve. Brown, Deardorff, and Stern, "Computational Analysis of the Accession of Chile to the NAFTA and Western Hemispheric Integration," p. 2.

[32] Maurice Schiff, "Chile's Trade Policy: An Assessment," Central Bank of Chile, Working Paper No. 151, Apr. 2002, found at *http://www.bcentral.cl/Estudios/DTBC/doctrab.htm*, pp. 36 and 50.

[33] Brown, Deardorff, and Stern, "Computational Analysis of the Accession of Chile to the NAFTA and Western Hemispheric Integration," p. 14.

Table 3-6
Welfare effects on the United States of expansion of NAFTA to include Chile, estimates by Brown et al.

Scenario	Imports	Exports	Terms of trade	Welfare (equivalent variation)	Welfare (equivalent variation)	Change in—	
						Wage	Return to capital
	Million dollars		*Percent change*	*Percent of GNP*	*Million dollars*	*Percent change*	
Expansion of NAFTA to include Chile (tariff liberalization only)	37,470	28,567	0.02	0.09	4,592	0.00	0.00
Expansion of NAFTA to include Argentina, Brazil, Chile, and Colombia (tariff liberalization only)	296,569	219,012	0.18	0.09	4,593	0.03	0.03
Expansion of NAFTA to include Chile (tariff and NTB liberalization)	38,423	29,650	0.02	0.01	684	0.00	0.00
Expansion of NAFTA to include Chile (tariff liberalization and increased capital flows)	41,442	31,044	0.02	0.09	4,660	0.00	0.00
Expansion of NAFTA to include Argentina, Brazil, Chile, and Colombia (tariff liberalization only; Tybout & Westbrook scale estimates)	292,229	214,622	0.19	0.09	4,823	0.03	0.02
Expansion of NAFTA to include Chile (tariff liberalization and increased capital flows; Tybout & Westbrook scale estimates)	41,057	30,600	0.03	0.09	4,634	0.00	0.00

Source: Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "Computational Analysis of the Accession of Chile to the NAFTA and Western Hemispheric Integration," Research Seminar in International Economics, Discussion Paper No. 432, found at *http://www.spp.umich.edu/rsie/workingpapers/wp.htm*, Oct. 16, 1998.

Westbrook's scale estimates substantively impact simulation results for other countries, the economywide impacts on the United States remain largely unchanged.[34]

In general, the literature reviewed here estimates that aggregate U.S. economic welfare is not likely to be significantly impacted by a U.S.-Chile FTA or other multilateral FTAs that would include Chile. Only welfare estimates that incorporate relatively large elasticity assumptions (such as Harrison et al.'s FTAA simulation using central elasticity estimates) or involve a large number of countries (such as Brown et al.'s APEC FTA simulation) resulted in impacts greater than 0.1 percent of GDP or GNP.

[34] Brown et al. note that given the sensitivity analysis conducted with alternate scale estimates, "the Michigan Model probably overstates the scale gains due to trade liberalization..., [however], the qualitative results are largely unchanged." Ibid., p. 18.

CHAPTER 4
Impact of Eliminating Tariffs

This chapter investigates the likely economic effects of a preferential elimination of tariffs between the United States and Chile under a U.S.-Chile free trade agreement (FTA).[1] To do so, a computable general equilibrium (CGE) model and its corresponding data are used to assess the possible effects on a number of economic measures, including the volume of trade in goods and services between the two countries and, for the United States, the gross domestic product (GDP) and economic welfare, sectoral output, wages and employment across industry sectors, and the final prices paid by consumers.[2]

The U.S.-Chile FTA provides a broader trade liberalization than the one analyzed in this chapter, which focuses only on the tariff provisions of the FTA. The implications of other important provisions of the FTA are discussed in chapter 5 (provisions regarding services), chapter 6 (investment), and in chapter 7 (intellectual property rights). A complete assessment of the impact of the provisions found in the U.S.-Chile FTA is given by the whole of the conclusions reached in this chapter as well as in chapters 5, 6, and 7.

The proposed tariff cuts of the U.S.-Chile FTA are to be phased into effect over a transitional period of 12 years. To take this time dimension into account, the Commission's analysis included a number of specific adjustments to the standard modeling procedures. The model used in this study allows the Commission to assess the likely effects of a multiple stage phase-in of tariff cuts, and to include an explicit time dimension in the assessment.

Summary of Findings

The Commission found that after full phase-in of tariff cuts under the U.S.-Chile FTA, U.S. exports to Chile would be about 18 percent to 52 percent higher, while U.S. imports from Chile would be about 6 to 14 percent higher.[3] Relative to total U.S. trade,

[1] The FTA impacts estimated in this report reflect only the removal of tariffs (and tariff rate quotas for food and agriculture); other effects, such as those of the removal of nontariff trade barriers, investment restrictions, or the easing of customs procedures, are not quantified.

[2] Economic simulation models, such as the one used here, are useful tools in addressing questions such as economic effects of trade agreements. Such models reflect key economic and trade relationships in the U.S. and world economy and they help to organize analysis. Model results should be interpreted as illustrative as to what might occur given the assumptions of the model and the focus on trade-related changes. Other events unrelated to the trade agreement under consideration, and which are not considered in this report, may affect the economic variables of interest to this study.

[3] The chapter analyzes the U.S.-Chile FTA under alternative model assumptions and the FTA impacts are presented in ranges.

these changes would be negligible with total U.S. imports and exports increasing by 0.03 percent to 0.09 percent. At the sectoral level, the estimated impacts would be relatively large for those sectors with high initial tariffs. The impact of the tariff removals under the FTA on U.S. exports to Chile would be the largest for transportation equipment (35 percent to 215 percent); textiles, apparel, and leather goods; (29 percent to 101 percent); and coal, oil, gas and other minerals (26 percent to 72 percent). U.S. imports from Chile would increase by more than 100 percent (albeit from small bases) for dairy products (169 percent to 575 percent), textiles, apparel, and leather goods (77 percent to 372 percent), and other crops (55 percent to 114 percent). The estimated impacts for U.S. imports would be driven largely by the removal of relative high tariffs and tariff equivalents: dairy products (34.84 percent); textiles, apparel, and leather goods (13.95 percent); sugar (43.83 percent), and other crops (17.46 percent).

Full phase-in of tariff cuts under the U.S.-Chile FTA would have a minimal impact on U.S. production (less than 0.1 percent). Other crops, the most affected sector, is estimated to contract by 0.01 to 0.03 percent;[4] the textiles, apparel, and leather goods sector would shrink by less than 0.05 percent in the United States; other machinery and equipment would expand by 0.02 to 0.05 percent. The analysis in chapters 6 and 7 suggests that the FTA will have little impact on U.S. trade (either exports or imports) in services with Chile because the United States and Chilean markets are relative open and U.S. services trade with Chile is relatively small.

The small sectoral impacts discussed above suggest that the effects of tariff removals under the U.S.-Chile FTA on U.S. economic welfare and GDP would be negligible. Welfare analysis confirms that following the implementation of the tariff removals under the FTA in 2016, when bilateral trade would be fully liberalized, the welfare impact for the United States would range from negligible to very small (i.e., range between negative 0.0002 percent to positive 0.003 percent of annual U.S. GDP).[5]

General Equilibrium Analysis

Database and Aggregation

The Global Trade Analysis Project (GTAP) modeling framework, which serves as a basis for the present analysis, consists of a comparative static CGE model and a global database on domestic markets and international trade.[6] In addition to the data on

[4] The aggregate sector "other crops" covers all crop sectors excluding grains, sugar crops, vegetables, fruits, and nuts.

[5] In this particular analysis, a negligible percent change refers to an absolute change of less than 0.001 percent of U.S. GDP.

[6] For additional information, see T.W. Hertel, ed., Global Trade Analysis: Modeling and Applications, Cambridge: Cambridge University Press, 1997, and Betina V. Dimaranan and Robert A. McDougall, Global Trade, Assistance, and Production: The GTAP 5 Data Base, Center for Global Trade Analysis, Purdue University, 2002.

trade in each of the commodities between each pair of economies or regions in the model, there are data on the domestic production and use of each commodity, including use in the production of other commodities; the supply and use of land, labor, and capital; and GDP. The database also contains information on tariffs, some nontariff barriers, and other taxes. An additional component of the data is the set of parameters which, in the context of the model's equations, determines responses to changes in price, among other things.[7]

The GTAP database (release 5.3) divides the world into 78 economies (or regions) and has 57 commodity aggregates (or sectors) and 5 primary factors of production.[8] For the purpose of the present analysis, the GTAP data have been aggregated into 22 commodity groups (table 4-1). In terms of regional coverage, the analysis includes the United States and Chile along with 11 other economies (appendix table C-1). The commodity aggregation adopted here focuses either on GTAP sectors with substantial trade between the United States and Chile or on GTAP sectors with substantial tariffs and tariff equivalents.

Table 4-1
Commodity aggregation

Commodity
Fishing
Forestry
Grains
Sugar crops
Vegetables, fruits, and nuts
Other crops
Livestock
Coal, oil, gas, and other minerals
Meat products
Dairy products
Sugar
Other processed food and tobacco products
Textiles, wearing apparel, and leather products
Wood products
Petroleum; coal; chemical; rubber; plastic products; and other mineral products
Ferrous metals
Metals n.e.c. and metal products
Motor vehicles and parts and other transportation equipment
Electronic equipment
Other machinery and equipment
Other manufactures
Services

Source: Compiled from the GTAP database.

[7] The Commission simulated the U.S.-Chile FTA under alternative assumptions about the response of trade to policy changes.

[8] Dimaranan and McDougall, Global Trade, Assistance, and Production, 2002, and Betina V. Dimaranan, Memo, "Candidate database for GTAP interim release 5.3," Center for Global Trade Analysis, Purdue University, Feb. 7, 2003.

Simulation Design

The analysis employs a comparative static framework where macro- and micro-variables are changing over time through recursive solutions of the model.[9] The effects of the tariff removals under the FTA are examined by means of a series of comparative static analyses extending out to 2016.[10] The comparative static GTAP model is solved sequentially so as to approximate economic changes over time. This is done in two steps. First, the baseline is constructed using the projected changes in the relevant variables (e.g., growth in GDP, labor, and capital) in the absence of the FTA. Second, the policy changes (i.e., tariff reduction or elimination) are simulated against the projected baseline. The impact of the FTA is estimated by examining the difference between these two steps. In essence, the analysis presented here addresses the following question: If an FTA were established between the United States and Chile, how would the time-paths of the relevant variables differ compared to the projected baseline?

Figures 4-1 and 4-2 depict results of the modeling technique employed in this study.[11] The figures show the estimated evolution of a variable of interest (bilateral trade between the United States and Chile, in this case) over a given time period (2001 to 2016). The "projected baseline" illustrates how the variable is estimated to evolve if the studied FTA were not implemented. The "FTA" line shows the evolution of the variable under implementation of the tariff removals under the FTA. Figure 4-1 shows that the agreement would likely increase U.S. exports to Chile by about 27 percent. Figure 4-2 shows that the agreement would likely increase U.S. imports from Chile by about 8 percent. In this chapter, the vertical distance between the two lines is reported for a number of variables, and it is interpreted as the estimated impact of tariff removals under the U.S.-Chile FTA for each variable.[12]

Projected baseline

The GTAP database (version 5.3) is based on 1997 data, including trade flows, tariffs, and other data for that year and is expressed in 1997 U.S. dollars. To build the projected baseline, data and forecasts of population growth, capital growth, and GDP growth from the World Bank are applied to all economies in the model to describe economic conditions in 2001 and expected economic conditions in 2004, 2008, 2012, and 2016.[13]

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[9] A similar methodology was applied by the Commission in U.S.-Korea FTA: The Economic Impact of Establishing a Free Trade Agreement (FTA) Between the United States and the Republic of Korea, Inv. No. 332-425, USITC Publication 3452, September 2001.

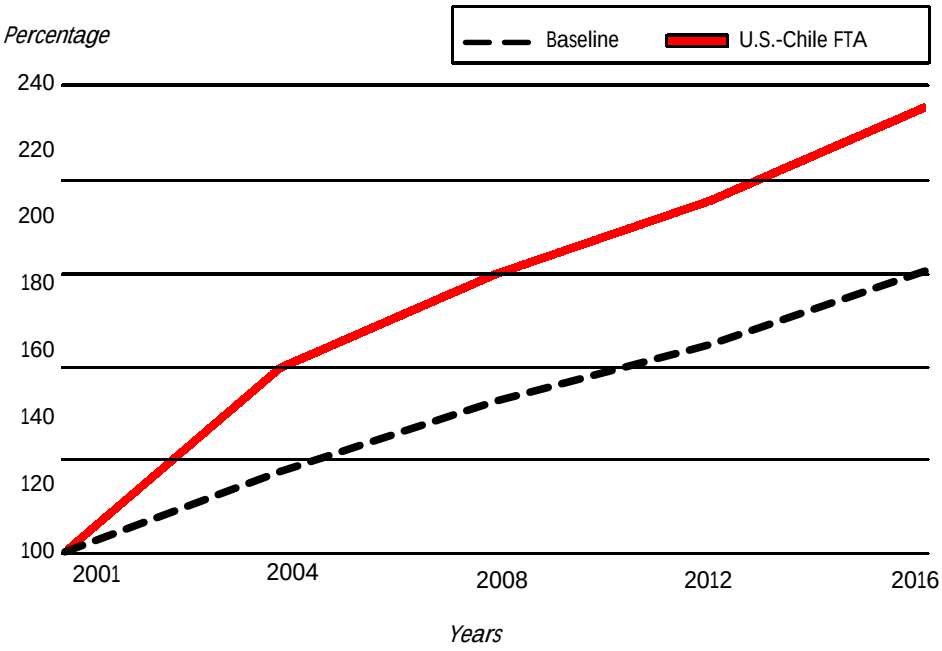
[10] In the simulations that follow, beginning of period dates are used to characterize time. Thus, the 2016 signifies the beginning of 2016, not the end.

[11] The data presented in figures 4-1 and 4-2 are results from the simulations below.

[12] The technique used here has a number of limitations which are discussed in appendix C. Despite these limitations, the simulations conducted here provide insights on the effects of an FTA on a number of economic measures.

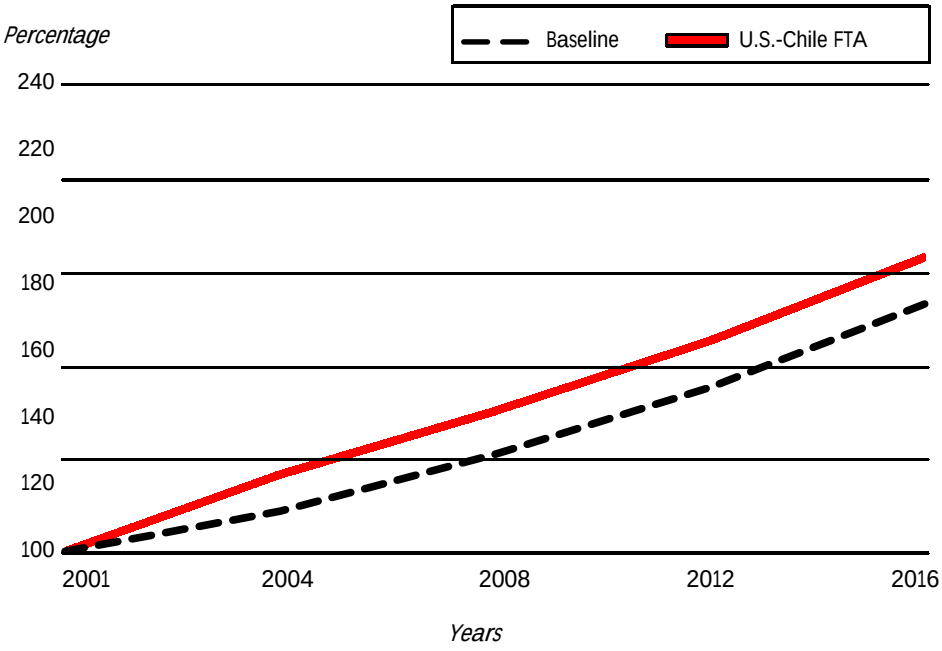
[13] For the year 2001, recent data are used to match bilateral trade flows between the United States and Chile. Official Statistics of the U.S. Department of Commerce.

Figure 4-1
U.S. exports to Chile (2001 = 100)



Source: GTAP simulations and USITC calculations.

Figure 4-2
U.S. imports from Chile (2001 = 100)



Source: GTAP simulations and USITC calculations.

In addition to the growth data, for each of the four time intervals composing the projected baseline, the protection database is adjusted to reflect the phasing-in of the trade policy measures ratified under the Uruguay Round and the Agreements on Agriculture and on Textiles and Clothing (ATC) of the Uruguay Round. Thus, economic conditions in 2001 reflect reductions in export subsidies and import tariffs for food and agricultural products, expansion of quotas for textiles and clothing agreed at the Uruguay Round, and reductions in tariffs applied to all other goods;[14] the data for the year 2004 reflect further reductions in trade policies for food and agricultural products on the part of developing countries and removal of quotas for textiles and clothing.

Table 4-2 shows the protection rates for the two countries for the year 2004 along with the relevant trade flows, after the above adjustments have been implemented. It is noted that both countries already have relatively open trade regimes prior to the implementation of the agreement. U.S. exports face Chile's uniform 6 percent tariff.[15] In the United States, Chilean exports face substantial trade barriers in a number of sectors, including sugar, dairy products, other crops; and textiles, apparel, and leather goods.[16] The high U.S. tariffs and tariff equivalents for sugar and dairy, however, are of no consequence for this analysis because U.S. imports of dairy products and sugar from Chile are less than $10 million (table 4-2). Assuming no trade barriers in services, the average, trade-weighted, U.S. tariff on imports from Chile is 2.39 percent; the average Chilean tariff on imports from the United States is 4.82 percent.

Policy experiment

The next step is to determine the policy experiments—or the shocks—that would reflect the staged implementation of the tariff removals under the FTA during the 12-year transitional period. The Commission examined the impact of the provisions that would be in effect in the first year of the agreement, 2004, and in 2008, and 2012, and with full implementation, in 2016. For the 22 productive sectors and for each of the 4 stages, table 4-3 reports the weighted average share of the initial tariff that will remain after each stage of the transition period. For example, the initial U.S. tariff cuts in 2004 include an average tariff cut of 97 percent on other processed food and tobacco products, leaving U.S. tariffs at 3 percent of their initial MFN level.[17]

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[14] In the GTAP data, the direct impact of textiles and clothing quotas is modeled as an export tax; to model the expansion and then the removal of those quotas, the relevant export taxes are reduced by about 16 percent in 2001 and 2004; the remaining (about 70 percent) export taxes are removed completely in 2005 (captured by 2008 in the present framework).

[15] Chile's trade regime is described in chapter 1.

[16] The estimate of the U.S. import tariff on textiles, apparel, and leather goods does not include the direct price impact of quotas for textiles and apparel. In the GTAP data the impact of those quotas is modeled as an export tax on U.S. imports of textiles and apparel from Chile.

[17] The analysis in this chapter does not fully capture the impact of rules of origin for beef and motor vehicles. Hence, the results reported here should be considered as an upper-bound. A more detailed analysis of the FTA effects on beef and motor vehicles, accounting for the rules of origin, is presented in chapter 5.

Table 4-2
Tariffs and tariff equivalents for the United States and Chile, by sectors, 2004[1]

Sector	Chilean tariff	U.S. exports to Chile[2]	U.S. tariff and tariff equivalent	U.S. imports from Chile[2]
	Percent	*Million dollars*	*Percent*	*Million dollars*
Fishing	6.00	1	0.45	57
Forestry	6.00	1	0.04	3
Grains	6.00	10	0.50	100
Sugar crops	6.00	0	0.53	0
Vegetables, fruits, and nuts	6.00	3	3.84	907
Other crops	6.00	5	17.46	50
Livestock	6.00	4	0.66	8
Coal, oil, gas, and other minerals	6.00	13	0.17	190
Meat products	6.00	5	3.56	0
Dairy products	6.00	3	34.84	6
Sugar	6.00	0	43.83	0
Other processed food and tobacco products	6.00	99	7.56	798
Textiles, wearing apparel, and leather products	6.00	73	13.95	19
Wood products	6.00	28	0.00	617
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	6.00	686	0.20	529
Ferrous metals	6.00	78	0.23	35
Metals n.e.c. and metal products	6.00	11	0.42	717
Motor vehicles and parts and other transportation equipment	6.00	496	0.77	9
Electronic equipment	6.00	552	0.20	2
Other machinery and equipment	6.00	1,093	0.51	15
Other manufactures	6.00	124	0.03	25
Services	NA	826	0.00	684

[1] Nontariff measures are captured to the extent they are reflected in the difference between the domestic price and the world price. The GTAP database contains only a limited and highly aggregated representation of the services sector. Unlike the other sectors in the database, the border measures captured in the GTAP protection data do not fully represent the actual restrictions to trade in services.

[2] Trade figures have been rounded to million dollar units.

NA = Not applicable.

Source: Betina V. Dimaranan and Robert A. McDougall, *Global Trade, Assistance, and Production: The GTAP 5 Data Base*, Center for Global Trade Analysis, Purdue University, 2002, and USITC staff calculations.

In the case of the services sector, the policy changes considered in the agreement could not be accounted for in this general equilibrium analysis.[18] Some studies cited in chapter 3 assume services provisions in their hypothetical FTA scenarios. The Commission, however, relied on qualitative analyses of the services provisions of the U.S.-Chile FTA for several reasons. First, the authors cited in chapter 3 had to deal with a lack of trade statistics in the services sectors. Second, relatively little information is

[18] This distinguishes the current report from other studies of "hypothetical" FTAs that include the effects of services liberalization. See, for example, Drusilla Brown, Alan V. Deardorff, and Robert M. Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," Research Seminar in International Economics, Discussion Paper No. 490, Dec. 2002. This study quantifies the impact of liberalizing the services sector in the context of FTAs and is discussed in the review of the literature in chapter 3.

Table 4-3
United States and Chile: Schedules for tariff liberalization, 2004-2016

Sector	United States				Chile			
	2004	2008	2012	2016	2004	2008	2012	2016
Fishing	0.0	0.0	0.0	0.0	0.6	0.4	0.2	0.0
Forestry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grains	0.0	0.0	0.0	0.0	12.2	8.8	4.4	0.0
Sugar crops	0.0	0.0	0.0	0.0	58.9	42.7	21.3	0.0
Vegetables, fruits, and nuts	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Other crops	0.3	0.2	0.0	0.0	5.0	3.5	1.5	0.0
Livestock	0.0	0.0	0.0	0.0	5.5	4.0	2.0	0.0
Coal, oil, gas, and other minerals	0.0	0.0	0.0	0.0	3.0	1.7	0.0	0.0
Meat products	0.0	0.0	0.0	0.0	67.1	38.0	0.0	0.0
Dairy products	1.3	0.7	0.0	0.0	64.4	0.4	0.0	0.0
Sugar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other processed food and tobacco products	3.0	2.0	0.4	0.0	10.2	2.3	0.1	0.0
Textiles, wearing apparel, and leather products	0.2	0.0	0.0	0.0	0.5	0.3	0.0	0.0
Wood products	0.0	0.0	0.0	0.0	5.6	3.2	0.0	0.0
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	1.0	0.6	0.0	0.0	16.5	1.7	0.0	0.0
Ferrous metals	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.0
Metals n.e.c. and metal products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Motor vehicles and parts and other transportation equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electronic equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other machinery and equipment	0.0	0.0	0.0	0.0	3.5	1.7	0.0	0.0
Other manufactures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Services[1]	NA	NA	NA	NA	NA	NA	NA	NA

[1] Unlike the other sectors in the GTAP database, the border measures captured in the GTAP protection data do not fully represent the actual restrictions to trade in services. Additionally, the agreement does not contain substantial service liberalization that could be captured in this analysis.

NA = Not applicable.

Sources: USTR and USITC calculations.

available on the barriers that restrict international trade in services.[19] Thus, a full-fledged quantitative analysis is impossible given the absence of data at a detailed sectoral level. Third, as the analyses in chapter 5 suggest, the impact of the services provisions of the U.S.-Chile FTA is likely to be negligible for the United States.

Simulation Results

Generally, the results of this type of analysis depend on many parameters that are included in the model (e.g., response parameters or projected baseline). To accommodate a broad range of views on parameters, the Commission has conducted a series of simulations using different assumptions regarding (1) the relative growth of the U.S. economy and, and (2) the economies' responsiveness to changes in prices of imports. Appendix C discusses the alternative assumptions.

[19] See Bernard Hoekman, "The Next Round of Services Negotiations: Identifying Priorities and Options," Federal Reserve Bank of St. Louis Review, July/August 2000, pp.31-47.

Given the different dimensions of the analysis and the varying assumptions, this section presents the ranges of the likely impact of the U.S.-Chile FTA on selected economic aggregates: trade flows, sectoral output, wages and employment across industry sectors, final prices paid by consumers, GDP, and welfare. The reported results correspond to the full implementation of the tariff cuts in the agreement (year 2016). Appendix C (tables C-2 to C-4) presents the likely impact of the tariff removals under the FTA provisions that would be in effect in the first year of the agreement, 2004, mid-implementation (2008 and 2012) as well as full implementation (2016) under base-case parameters.

Trade volumes

Trade agreements generally are designed to increase trade flows between the participating economies. Indeed, the results of the general equilibrium analysis suggest that U.S.-Chile bilateral trade would increase as a result of the tariff removals under the FTA. The general equilibrium analysis indicates that following the total removal of tariffs in the U.S.-Chile FTA, total U.S. exports to Chile would increase by 18.0 percent to 51.7 percent (table 4-4), while total U.S. imports from Chile could increase by 5.7 percent to 13.7 percent (table 4-5). Given that the U.S.-Chile trade is small relative to total U.S. trade, and that trade barriers are relatively low, the impact of the tariff removals under the FTA on total U.S. trade is small. In fact, total U.S. exports and imports are estimated to increase by 0.03 percent to 0.09 percent (tables 4-4 and 4-5).

The bulk of the trade responses to FTAs is generally concentrated in sectors facing relatively large trade barriers, because the FTA-led market access improvements tend to be more important in those sectors. Given that Chile applies a uniform tariff on imports from the United States, the impact of the tariff removals under the FTA on U.S. exports to Chile is a general expansion ranging between about 22 and 50 percent (table 4-4). The only notable exceptions are in electronic equipment, where U.S. exports would expand by 17.2 percent to 40.4 percent, and transportation equipment, where U.S. exports would expand by 34.8 percent to 215.4 percent.

U.S. sectoral imports from Chile would increase following implementation of tariff removal under the FTA, with the exception of fishing, grains, livestock, wood products, and other manufactures (table 4-5).[20] The textiles, apparel, and leather goods sector has the highest incidence of barriers imposed on imports from Chile (see table 4-2), and thus it exhibits one of the most notable import responses in percentage terms. It is

[20] U.S. imports of sugar crops and services would also decline. The sugar crops percentage impact refers to insignificant trade; the services impact is a direct outcome of the assumption that trade in services is free of any barriers. Hence, the simulated FTA would cause Chilean services in the United States to become more expensive relative to other imports from Chile, and thus U.S. importers would demand fewer services from Chile.

Table 4-4
Changes in U.S. exports, 2016 (relative to baseline)

Commodity	Change in U.S. exports to Chile			Total U.S. exports		
	2004 base[1]	Low	High	2004 base[1]	Low	High
	Million dollars	*— Percent change —*		*Million dollars*	*— Percent change —*	
Fishing	1	29.41	80.61	743	0.00	0.02
Forestry	1	23.83	59.13	1,842	-0.01	0.02
Grains	10	21.25	45.48	11,482	0.02	0.05
Sugar crops	0	21.93	47.11	3	0.03	0.08
Vegetables, fruits, and nuts	3	22.59	49.21	6,360	0.12	0.26
Other crops	5	20.68	44.95	12,704	0.05	0.13
Livestock	4	22.28	53.70	4,555	0.04	0.08
Coal, oil, gas, and other minerals	13	25.66	71.36	6,987	0.03	0.09
Meat products	5	20.81	44.60	9,366	0.00	0.02
Dairy products	3	20.45	43.17	765	0.07	0.13
Sugar	0	21.21	44.97	88	-0.03	-0.01
Other processed food and tobacco products	99	21.57	49.96	28,782	0.10	0.19
Textiles, wearing apparel, and leather products	73	29.24	100.65	23,369	0.06	0.20
Wood products	28	23.62	61.21	10,150	0.03	0.05
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	686	18.27	35.72	133,303	0.08	0.14
Ferrous metals	78	24.97	67.89	26,637	0.03	0.06
Metals n.e.c. and metal products	11	25.00	67.94	18,361	-0.03	0.02
Motor vehicles and parts and other transportation equipment	496	34.80	215.39	174,622	0.07	0.29
Electronic equipment	552	17.18	40.39	126,381	0.05	0.08
Other machinery and equipment	1,093	20.58	49.46	197,308	0.10	0.20
Other manufactures	124	19.64	39.17	37,522	0.03	0.05
Services	826	0.46	0.68	355,575	-0.09	0.01
All sectors	4,108	18.01	51.66	1,186,904	0.03	0.08

[1] Trade figures have been rounded to million dollar units.

Sources: GTAP database and USITC calculations.

estimated that following implementation of tariff removal under the FTA, U.S. imports from Chile of textiles, apparel, and leather goods could be higher than the projected baseline by between 77 percent and 372 percent. These percent changes, however, are relative to a very small base of imports (about $19 million).

Table 4-5
Changes in U.S. imports, 2016 (relative to baseline)

Commodity	Change in U.S. imports from Chile			Total U.S. imports		
	2004 base[1]	Low	High	2004 base[1]	Low	High
	Million dollars	*— Percent change —*		*Million dollars*	*— Percent change —*	
Fishing	57	-7.34	-3.67	1,816	-0.02	-0.01
Forestry	3	0.55	6.66	416	0.00	0.01
Grains	100	-3.37	-1.51	896	-0.16	-0.07
Sugar crops	0	-3.60	-1.65	1	-0.02	0.00
Vegetables, fruits, and nuts	907	8.67	16.12	8,027	0.44	0.73
Other crops	50	55.49	115.23	5,586	0.23	0.42
Livestock	8	-5.05	-1.82	3,234	0.01	0.03
Coal, oil, gas, and other minerals	190	0.75	1.81	99,323	0.02	0.04
Meat products	0	8.93	17.47	4,634	0.02	0.04
Dairy products	6	169.39	574.60	1,406	0.43	1.41
Sugar	0	231.13	910.33	803	0.02	0.04
Other processed food and tobacco products	798	26.62	65.69	30,127	0.36	0.77
Textiles, wearing apparel, and leather products	19	77.03	371.87	106,310	0.02	0.10
Wood products	617	-0.96	-0.77	35,104	0.01	0.06
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	529	0.65	1.24	181,453	0.02	0.04
Ferrous metals	35	0.41	1.27	38,749	0.03	0.11
Metals n.e.c. and metal products	717	1.22	3.08	25,179	0.04	0.13
Motor vehicles and parts and other transportation equipment	9	6.16	27.93	197,413	0.02	0.15
Electronic equipment	2	1.64	4.72	176,750	0.01	0.06
Other machinery and equipment	15	1.76	4.64	161,106	0.02	0.09
Other manufactures	25	-0.46	-0.33	73,873	0.01	0.05
Services	684	-1.62	-1.08	172,094	0.01	0.05
All sectors	4,771	5.65	13.66	1,324,298	0.03	0.09

[1] Trade figures have been rounded to million dollar units.

Sources: GTAP database and USITC calculations.

Other sectors projecting significant percent increases in U.S. imports from Chile include dairy, other crops, other processed food and tobacco products, and transportation equipment.[21] These bilateral changes have a very small impact on total U.S. sectoral imports. For all the sectors considered, the potential changes on total imports are less than 0.5 percent except for dairy products (1.41 percent), other processed food and tobacco products (0.77 percent), and vegetables, fruits and nuts (0.73 percent).

[21] The aggregate model used in this analysis depicts the United States and Chile exporting to and importing from each other in all sectors. Thus, it is not inconsistent to conclude, for example, that the United States would export to and import from Chile more textiles, apparel, and leather goods due to the FTA. Such a result should be interpreted that U.S. exports consist of different textiles, apparel and leather goods than those found in U.S. imports of textiles, apparel, and leather goods.

The scope of the actual expansion of Chile's sectoral exports to the United States would be determined by the availability of intermediate inputs and primary factors, and the production substitution possibilities. In the longer run, Chilean resources would be reallocated until returns are equalized across sectors, and the proportion of primary to intermediate inputs used in production would change. More imported intermediate inputs might be needed to facilitate the expansion of Chile's sectoral exports, which potentially could violate the U.S.-Chile FTA rules of origin. The analysis conducted here does not specifically address the impact of the rules of origin. As discussed in chapter 2, the rules of origin negotiated under the U.S.-Chile FTA are generally comparable to those in NAFTA; nevertheless, rules of origin requirements can restrict trade flows, translating into a smaller potential impact of the agreement on bilateral trade.

Domestic production

The changes in trade flows affect output at the sectoral and the aggregate levels. Generally, an increased incentive to export would lead to an increase in the output of a sector. Conversely, increased competition taking the form of a higher volume of imports may shrink domestic production in a sector, at least in the short term. As the incentives to produce in a particular sector change, productive resources are reallocated across sectors, and cross-sectoral demands for different factors of production are altered. Because the supply of factors of production is constrained at any given time, expansion of one sector usually means contraction of another (at least in the short run). Generally then, FTA membership has implications for almost all parts of the economy with some sectors expanding while others contract.

The results of the simulations indicate that changes in U.S. domestic sectoral production, following the FTA implementation, are generally very small in percentage terms (table 4-6). None of the estimated sectoral impacts exceeds 0.1 percent. These results are not unexpected given that the trade barriers to be removed are small and that U.S. trade with Chile is small relative to total U.S. trade and total U.S. production. The FTA-led increase in net imports of vegetables, fruits, and nuts from Chile would cause production in that sector to decline by 0.05 to 0.08 percent. This minuscule drop is driven by the increase in imports from Chile, which slightly decreases incentives for (or profitability of) domestic production. On the other hand, the other machinery and equipment sector could expand by 0.02 to 0.05 percent.

The effects of tariff removal under the FTA on sectoral output would induce changes in the demand for labor in the United States (table 4-7). General equilibrium results indicate that for each sector the impact of tariff removal is almost identical for skilled and unskilled labor. In the absence of technological development, changes in demand for the different factors of production should be closely related to changes in the incentives to produce. It is, therefore, not surprising that the effect of tariff removal on sectoral demand for labor tends to be almost equal to the impact on sectoral output reported earlier.

Table 4-6
Effects on sectoral output in the United States, by commodities, 2016 (relative to baseline)

(Percent)

Commodity	Low	High
Fishing	0.00	0.00
Forestry	0.00	0.00
Grains	0.00	0.00
Sugar crops	-0.02	-0.01
Vegetables, fruits, and nuts	-0.08	-0.05
Other crops	-0.03	-0.01
Livestock	0.00	0.00
Coal, oil, gas, and other minerals	0.00	0.00
Meat products	0.00	0.00
Dairy products	-0.03	-0.01
Sugar	-0.02	-0.01
Other processed food and tobacco products	-0.03	-0.01
Textiles, wearing apparel, and leather products	-0.04	0.00
Wood products	-0.01	0.00
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	0.01	0.02
Ferrous metals	0.00	0.01
Metals n.e.c. and metal products	-0.01	0.01
Motor vehicles and parts and other transportation equipment	0.00	0.03
Electronic equipment	0.01	0.01
Other machinery and equipment	0.02	0.05
Other manufactures	0.00	0.00
Services	0.00	0.00

Source: GTAP database and USITC calculations.

Changes in demand for the different primary factors of production would affect their real rate of return (i.e., the payment made to the factor's owner). In general, an output expansion in a particular sector is accompanied by an increase in the returns to the factors that are intensively used in that sector, and a decrease in returns to factors less intensively used. Given that agriculture (e.g., fruits, vegetables, and nuts) uses land intensively, the return to land would decline by 0.05 to 0.11 percent in the United States (table 4-8).

Prices paid by consumers

The bilateral tariff eliminations associated with the FTA affect the prices paid by U.S. households through various channels. The removal of trade barriers on a commodity would decrease its domestic price, because the household price for imported goods is equal to a good's international price plus any trade taxes. At the same time, a policy change that leads to an increase in the demand for (or a decrease in the supply of) a particular imported good tends to increase its price. Furthermore, households consume a mix of imported and domestic products, with the prices of domestic

Table 4-7
Effects on the demand for labor in the United States, by commodities, 2016 (relative to baseline)

(Percent)

Commodity	Low	High
Fishing	0.00	0.01
Forestry	0.00	0.00
Grains	-0.01	0.00
Sugar crops	-0.03	0.00
Vegetables, fruits, and nuts	-0.10	0.00
Other crops	-0.04	0.00
Livestock	-0.02	0.00
Coal, oil, gas, and other minerals	0.00	0.01
Meat products	0.00	0.00
Dairy products	-0.03	0.00
Sugar	-0.02	0.00
Other processed food and tobacco products	-0.03	0.00
Textiles, wearing apparel, and leather products	-0.04	0.00
Wood products	-0.01	0.00
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	0.00	0.02
Ferrous metals	0.00	0.01
Metals n.e.c. and metal products	-0.01	0.01
Motor vehicles and parts and other transportation equipment	0.00	0.03
Electronic equipment	0.00	0.02
Other machinery and equipment	0.00	0.05
Other manufactures	0.00	0.00
Services	0.00	0.00

Source: GTAP database and USITC calculations.

products changing in the same direction as the prices of imported goods but not by the same magnitude. The effect of tariff removal under the FTA on household prices depends on the relative strength and interaction between those offsetting forces. Simulation results indicate that U.S. household price changes due to the FTA are extremely small (table 4-9). Considering all commodities, U.S. household prices would decline, but by less than 0.005 percent. Fruits, vegetables, and nuts would experience the largest relative price drop following the FTA (0.09 to 0.11 percent).

Economic welfare and gross domestic product

The magnitudes of the sectoral impacts reported above suggest that the effect of tariff removal under the FTA on U.S. economic welfare, as measured by equivalent variation, and GDP would be small.[22] The equivalent variation of a policy change

[22] Equivalent variation is the welfare impact of a policy change in monetary terms and is defined as the amount of income that would have to be given to (or taken away from) the economy before the policy change to leave the economy as well off as the economy would be after the policy change. A positive figure for equivalent variation implies that the policy change would improve economic welfare (see H.R. Varian, Intermediate Economics: A Modern Approach, 5th ed., New York: W.W. Norton & Company, 1999, pp. 252-253).

Table 4-8
Changes in real rates of return on primary factors in the United States, 2016 (relative to baseline)

(Percent)

Factor	Low	High
Land	-0.11	-0.05
Unskilled labor	0.00	0.00
Skilled labor	0.00	0.00
Capital	0.00	0.00
Natural resources	-0.02	0.02

Source: GTAP database and USITC calculations.

Table 4-9
Changes in prices paid by U.S. consumers, by commodities, 2016 (relative to baseline)

(Percent)

Commodity	Low	High
Fishing	0.01	0.03
Forestry	-0.01	0.00
Grains	-0.03	-0.01
Sugar crops	-0.05	-0.02
Vegetables, fruits, and nuts	-0.11	-0.09
Other crops	-0.07	-0.05
Livestock	-0.03	-0.02
Coal, oil, gas, and other minerals	-0.01	0.02
Meat products	-0.02	-0.01
Dairy products	-0.03	-0.01
Sugar	-0.03	-0.01
Other processed food and tobacco products	-0.03	-0.02
Textiles, wearing apparel, and leather products	-0.02	-0.01
Wood products	0.00	0.00
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	-0.01	0.00
Ferrous metals	0.00	0.00
Metals n.e.c. and metal products	-0.01	0.00
Motor vehicles and parts and other transportation equipment	-0.01	-0.01
Electronic equipment	-0.01	-0.01
Other machinery and equipment	-0.01	0.00
Other manufactures	-0.01	0.00
Services	0.00	0.00

Source: GTAP database and USITC calculations.

consists of two components: allocative efficiency gains and terms-of-trade improvements. Allocative efficiency gains arise from a better allocation of resources and trade; terms-of-trade gains arise from an improvement in the prices received from U.S. exports relative to the prices paid for U.S. imports.[23] Model simulation results show that following the total removal of tariffs in the U.S.-Chile FTA in 2016, the economic welfare impact for the United States would range from negligible to very small (i.e., negative 0.0002 percent to positive 0.003 percent of annual U.S. GDP).[24]

[23] The U.S.-Chile FTA consists of two policy changes: a U.S. removal of tariffs and a Chilean removal of tariffs. The sum of the welfare impacts of these two policy changes approximates the welfare impacts of the tariff removals under the FTA itself. Due to the large relative size of the U.S. economy and the assumption of product differentiation by country of origin, the U.S. liberalization would produce a deterioration in the U.S. terms-of-trade, but the Chilean liberalization would produce an improvement in the U.S. terms-of-trade. The sign of the allocative efficiency impact for the United States, however, is uncertain. If there were no other domestic or border taxes in the U.S. economy, then removal of U.S. tariffs on imports from Chile would produce a positive allocative efficiency impact. U.S. tariffs on other imports allow for the possibility that the U.S. liberalization produces negative allocative efficiency impacts. Thus, it is an empirical issue whether an FTA is welfare improving or deteriorating.

[24] In this particular analysis, a negligible percent change refers to an absolute change of less than 0.001 percent of U.S. GDP.

CHAPTER 5
Impact on Selected Sectors

Information in this chapter supplements the quantitative results presented in chapter 4 with qualitative analysis of the U.S.-Chile FTA and the potential impact on distinct industry segments. Industries addressed are beef; construction and mining equipment; copper; fruit; methanol; motor vehicles; oilseeds, oilseed products, and vegetable oils; prepared/preserved tomato products; telecommunications equipment; wheat and wheat flour; wood and wood products; financial services; and telecommunications services. Industries were chosen based on a collective consideration of apparent sectoral liberalization in terms of tariff and other nontariff measures, the importance of the sector in terms of bilateral trade or prominence in the agreement, additional factors affecting production or trade in specific industries, and industry and Commission analyst views regarding the FTA commitments or U.S.-Chile trade relationship in a particular area.[1]

The qualitative analysis looks at relevant commitments in the U.S.-Chile FTA that could potentially affect trade in goods and services, including sector-specific tariff elimination, general and industry-specific nontariff measures, and commitments with respect to market access and the movement of personnel. The analysis also considers global industry developments and implementation of the U.S.-Chile FTA in the context of sectoral, bilateral, and/or regional trade liberalization. Finally, input from industry representatives concerning the actual anticipated benefits or limitations and subsequent effects of the agreement is incorporated, including information taken from written submissions to the Commission and interviews with industry representatives.

Beef[2]

Overview

The United States is the largest beef producer, a leading beef importer, and the second largest beef exporter in the world. Abundant forage and feed grains, coupled with an efficient, low-cost processing sector, make the United States one of the world's most competitive producers and exporters of high quality, grain-fed beef. The United States

[1] The industry segments discussed in this chapter are not identical to the commodity groups analyzed quantitatively in chapter 4. In general, the products and sectors analyzed in this chapter are specific groupings, and the commodity groups in chapter 4 are broad aggregations of industry sectors represented in the GTAP model.

[2] Includes HTS headings 0201 and 0202.This sector includes bovine meat (including beef and veal, hereafter referred to as beef) whether it is fresh, chilled, or frozen, as well as live cattle.

is, nonetheless, a major importer of manufacturing quality beef, which is competitively produced in forage-based (grass-fed) production systems in such countries as Australia, New Zealand, Argentina, and Brazil.

The U.S. live cattle sector consists of more than 1 million farming, ranching, and feedlot operations; most (61 percent) of them being small cow-calf operations with less than 50 beef cows.[3] On January 1, 2003, there were 96.1 million animals in the U.S. cattle inventory. U.S. cattle producers typically specialize in either milk or beef production. Many operations use primarily unpaid family labor, but as many as 525,000 full-time-equivalent workers would be required to care for the U.S. cattle herd annually.[4] U.S. beef is produced primarily from beef-breed cattle grown to slaughter weights on grain-based rations in large concentrated feedlots.

In 2000, the U.S. cattle processing sector consisted of 716 firms that operated 738 federally inspected cattle slaughter plants.[5] The 20 largest firms accounted for nearly 90 percent of U.S. commercial cattle slaughter.[6] An additional 2,079 plants operated under state inspection systems.[7] In 2002, the U.S. cattle processing sector slaughtered 36.8 million animals from which it produced 12.4 million metric tons of beef and veal (carcass weight equivalent).[8]

Chile's cattle and beef industry is small relative to the U.S. industry. Chile's cattle herd totaled about 4.1 million animals in 2002.[9] Some Chilean producers specialize in beef production, but most raise dual purpose cattle or specialize in milk production. Therefore, most Chilean beef is a by-product of the dairy industry. Cattle are, for the most part, fed to slaughter weight on forages (grass-fed). However, farms in Chile are not large enough to develop the efficiencies of other large grass-fed beef producers, such as Australia and neighboring Argentina. In 2001, Chile slaughtered 870,000 animals[10] that yielded 218,000 metric tons of beef,[11] less than 2 percent of U.S. beef production.

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[3] USDA, National Agricultural Statistics Service (NASS), *Cattle*, Jan. 31, 2003.

[4] USITC estimate based on cattle numbers and USDA labor cost estimates.

[5] USDA, Grain Inspection, Packers and Stockyards Administration, *Packers and Stockyards Statistical Report, 2000 Reporting Year,* Oct. 2002.

[6] Federally inspected slaughter represented more than 98 percent of commercial cattle slaughter in 2000.

[7] USDA, Food Safety and Inspection Service, found at *http://www.fsis.usda.gov/OFO/FAIM/faimmain.htm.*

[8] USDA, NASS, *Livestock Slaughter, 2002 Summary*, Mar. 2003.

[9] USDA, Foreign Agricultural Service (FAS), *Chile's Cattle and Beef Situation*, found at *http://www.fas.usda.gov/dlp/countrypages/chile.html*; United Nations (UN), Food and Agricultural Organization (FAO), FAOSTAT database, found at *http://apps.fao.org/page/collections?subset=agriculture*.

[10] Instituto Nacional de Estadisticas, "Ganado Beneficiado en los Mataderos, Produccion de Carne en vara Bovinos por Categoria," found at *http://www.ine.cl/16-agrope/MJUNTO7.htm*, retrieved Mar. 19, 2003.

[11] Ibid.

Chile is neither a major source of U.S. beef imports nor a principal market for U.S. beef exports. Except for minimal amounts in 1999 and 2000,[12] the United States did not import beef from Chile during 1998-2002. Exports of U.S. beef to Chile ranged from 14 to 54 metric tons during 1998-2002, which represented less than 0.1 percent of U.S. beef exports. Chile is, however, a major beef importer. In 2001, Chile was the world's ninth largest beef importer.[13] Beef is Chile's top ranking agricultural import, averaging $165 million in value and 84,000 metric tons in volume during 1999-2001.[14] Imports were equal to about 28 percent of apparent domestic consumption. The primary source for Chile's beef imports have been Mercosur countries (Argentina, Brazil, Paraguay, and Uruguay),[15] whose products enter Chile duty free under the Mercosur-Chile FTA. During 1999-2001, Chile exported a small amount of beef, averaging 71 metric tons annually, mostly to Costa Rica and Ecuador.

Potential Impact on U.S. Imports[16]

The impact of the U.S.-Chile FTA on total U.S. beef imports is likely to be minimal. Under a trade diversion scenario, however, it is possible that the agreement could result in some increased U.S. beef imports if Chile, already a major beef importer, were to primarily source beef from third countries (especially its Mercosur FTA partners) for domestic consumption and export Chilean beef to the United States, as described below. Even if U.S. beef imports from Chile were to increase in this way, however, the relative sizes of the U.S. and Chilean cattle and beef sectors suggests that any resulting impact on U.S. production and employment in the cattle and beef sectors would be minimal.

Beef imported from Chile is currently subject to WTO-negotiated tariff rate quotas (TRQ) (in-quota duty rates are 4.4 cents per kilogram and over-quota duty rates are 26.4 percent) and is counted against the 64,805 metric tons allocated to other countries and areas.[17] The U.S.-Chile FTA provides Chile with immediate duty-free access to all tariff lines for fresh, chilled, or frozen beef (HTS headings 0201 and 0202), except as outlined in Annex 1, Note 2(a) of chapter 3. The provisions of Annex 1 limit duty-free access for Chile's beef exports to the United States in excess of WTO

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[12] U.S. beef imports from Chile totaled 3,453 kilograms in 1999, and 4,138 kilograms in 2000. These amounts represent less than 0.5 percent of all U.S. beef imports during this period.

[13] USDA, FAS, "The United States and Chile Free Trade Agreement" Commodity Fact Sheet, March 2003, found at *http://www.fas.usda.gov/info/factsheets/ChileFTA/beef.html*.

[14] Ministerio de Agricultura, "Boletin Estadistico de Comercio Exterior Silvoagropecuario," Enero-Diceimbre 2001, no. 24, Feb. 2002.

[15] Chile's FTA with the Mercosur countries is discussed in chapter 1.

[16] USDA does not currently recognize Chile's meat inspection system. However, technical discussions are ongoing. Therefore, this analysis assumes that these technical discussions will result in approval of Chile's meat inspection system within the time frame of approval of the agreement. USDA, FAS, "The United States and Chile Free Trade Agreement," Commodity Fact Sheet, Mar. 2003.

[17] High-quality beef cuts and other processed beef, as defined by the Harmonized Tariff Schedule of the United States, are subject to in-quota duties of 4 percent and 10 percent, respectively. USITC, *Harmonized Tariff Schedule of the Untied States (2003),* USITC Publication 3565. The fill rate on the WTO TRQ amounts allocated to other countries and areas has averaged less than 35 percent during 1999-2001.

TRQ amounts to 1,000 metric tons in year one, 1,100 metric tons in year two, and 1,210 metric tons in year three. After year three, Chile has unlimited duty free access to the U.S. beef market.[18] Because Chile is not precluded from exporting beef under current WTO TRQ amounts, the amounts specified in Annex 1, Note 1(a) of the U.S.-Chile FTA do not represent an upper bound on potential duty free beef imports from Chile during the three-year staging period. The agreement essentially provides Chile with immediate duty-free access up to 65,805 metric tons in year one, 65,905 metric tons in year two, and 66,015 metric tons in year three. Rules of origin do not allow transshipment of beef from other countries. However, the agreement does not include a net exporter condition for beef. Therefore, the U.S.-Chile FTA does not preclude trade diversion—allowing for the possibility that Chile could import beef from third countries for domestic consumption and export Chilean beef to the United States.[19]

Chile's ability to compete for beef sales in the U.S. market within the WTO TRQ amounts would depend on economic conditions (e.g., relative prices between Chilean and third country beef and internal infrastructure of the industry) as well as sanitary and phytosanitary (SPS) factors. The U.S.-Chile FTA would immediately enhance Chile's competitiveness vis-à-vis other countries that export beef to the United States within the WTO TRQ amounts. Chile is currently the only South American country certified by the Office International des Epizooties as free of foot-and-mouth disease (FMD) without vaccination.[20] The United States does not allow fresh, chilled, or frozen beef imports from countries that are not FMD-free.[21] Moreover, Chile has established market channels to import beef from South American countries that are not currently eligible to export fresh, chilled, or frozen beef to the United States, including Argentina and Brazil. Consequently, U.S. SPS requirements could provide incentive for Chile to import beef from its Mercosur partners for domestic consumption, and export domestically produced Chilean beef to the United States.

Potential Impact on U.S. Exports

The impact of the U.S.-Chile FTA on total U.S. beef exports is expected to be minimal. Even if beef exports to Chile were to increase, the relative size of the U.S. and Chilean industries, and the volume of U.S. exports to other destinations suggest a minimal impact on U.S. production and employment in the cattle and beef sectors.

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[18] These TRQ provisions apply to HTS subheadings: 0201.10.50, 0201.20.80, 0201.30.80, 0202.10.50, 0202.20.80, and 0202.30.80, the WTO over-quota tariff lines; United States Trade Representative (USTR), "Chile Free Trade Agreement," Consolidated Texts, chapter 3, National Treatment and Market Access for Goods, U.S. Headnotes, Annex I, Note 1.(a), found at *http://www.ustr.gov/new/fta/Chile/text/index.htm*.

[19] The economic literature on trade diversion is discussed in chapter 3.

[20] Argentina and Colombia have zones classified as FMD-free without vaccination; Brazil and Colombia have zones classified as FMD-free with vaccination; and Paraguay is classified as FMD-free with vaccination. Office International des Épizooties, "List of Foot and Mouth Disease Free Countries," found at *http://www.oie.int/eng/info/en_fmd.htm*.

[21] USDA, Animal and Plant Health Inspection Service, "Foot and Mouth Disease, More detailed information on USDA restrictions on products from countries with foot-and-mouth disease," found at *http://www.aphis.usda.gov/lpa/issues/fmd/restrpro.html.*

U.S. exports of fresh, chilled, or frozen beef are subject to Chile's uniform 6 percent duty. The agreement provides U.S. beef exports with duty free access to the Chilean market on up to 1,000 metric tons in year one, 1,100 metric tons in year two, and 1,210 metric tons in year three. Duties on amounts in excess of these TRQs will be reduced in four equal annual increments beginning in year one of the agreement. Beginning in year four of the agreement, U.S. beef exports to Chile are to receive unrestricted duty free access to the Chilean market.[22]

Tariffs, however, do not appear to have been the restricting factor on U.S. beef exports to Chile. Technical barriers as a result of Chilean SPS requirements have been the primary limiting factor on U.S. beef exports to Chile. Chile has not recognized the U.S. meat plant inspection system. Consequently, to export to Chile, the Chilean government required that each U.S. plant be individually inspected by Chilean officials at the potential exporter's expense. On June 3, 2003, however, Chile agreed to recognize the equivalency of the U.S. meat inspection system effective immediately. Furthermore, Chile also has not recognized USDA grading systems, requiring all beef sold in Chile to be graded according to Chilean standards. Heretofore, the potential returns to U.S. beef exporters to supply the Chilean market were not sufficient to cover the costs of complying with Chilean SPS and grading requirements. The U.S.-Chile FTA will establish mutual recognition of beef grading programs for the purposes of marketing U.S. beef in Chile, thereby opening an export market from which U.S. beef has been effectively excluded.[23]

U.S. beef exports to Chile most likely will compete in high-value market niches. Nonetheless, U.S. beef will have to compete with competitively priced beef from the Mercosur countries. Beef exports from these countries have established market channels, consumer recognition, and duty free access as a result of the Mercosur-Chile FTA. Nearly all beef now consumed in Chile is grass fed. The level of U.S. beef exports to Chile will depend on two factors: (1) the degree to which Chilean consumers are willing to substitute grain-fed beef from the United States for grass-fed beef from domestic producers and traditional suppliers of beef imports and (2) the degree to which Chilean consumers increase total beef consumption.

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[22] These provisions apply to Chilean tariff subheadings 0201.10.00, 0201.20.00, 0201.30.00, 0202.10.00, 0202.20.00, and 0202.30.00. Year 1 duties will be 4.5 percent; year 2 duties will be 3 percent; year 3 duties will be 1.5 percent. USTR, "Chile Free Trade Agreement," Consolidated Texts, chapter 3, National Treatment and Market Access for Goods, Chile Headnotes, Annex I, Note 1.(b), found at *http://www.ustr.gov/new/fta/Chile/text/index.htm*.

[23] USTR, "Chile Free Trade Agreement," Consolidated Texts, Chapter 3, National Treatment and Market Access for Goods, Text, Annex 3.17, found at *http://www.ustr.gov/new/fta/Chile/text/03text.pdf*.

Construction and Mining Equipment[24]

Overview

The United States is a dominant player in the global construction and mining equipment industry. U.S.-based Caterpillar, Inc., for example, is the world's leading construction and mining equipment firm, offering a full range of products manufactured in 115 locations around the globe. Caterpillar and other U.S. manufacturers are well established, technically advanced, and highly active in foreign markets. In 2001, the U.S. construction and mining equipment industry recorded shipments of approximately $25 billion and exports of $9.5 billion.[25] By comparison, Chile has virtually no local production of construction equipment and only limited domestic production of mining machinery and parts.[26] Total domestic production amounted to only $500 million and exports totaled $52 million in 2000, the latest year for which data are available.[27]

Potential Impact on U.S. Imports

The U.S.-Chile FTA most likely will have no impact on U.S. imports of construction equipment. All items included in this product category already enter the United States free of duty. As noted, Chile has a very small domestic industry, with production primarily aimed at the domestic market and largely confined to the fabrication of pieces and parts for imported equipment. U.S. imports from Chile in 2002 totaled only $2.1 million (accounting for just 0.04 percent of total U.S. imports of construction and mining equipment) and consisted almost wholly of parts for mining machines, including boring and sinking equipment, coal and rock cutters, and tunneling machinery. Chile, given its limited domestic industry, is not considered to be competitive with advanced U.S. manufacturers and their major worldwide competitors in terms of product line, price, quality, and service.

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[24] Includes HTS headings and subheadings 8426-8431; 8479.10.00; 8479.90.9450; and 8704.10. The construction and mining equipment sector comprises an extensive range of machinery and related parts and accessories used in the commercial, residential, and public works sectors for building, development, demolition, exploration, and excavation. Construction equipment encompasses a broad spectrum of products that dig, level, load, carry, and compact, including shovel loaders, hydraulic excavators, motor graders, articulated haulers, and compact equipment. Mining equipment includes a variety of heavy machines that load, carry, drill, bore, and cut earth, mineral, or ore, such as coal or rock cutters, boring machines, and off-highway loaders.

[25] Shipments data include figures for the following NAICS categories 333120, 333131 (excluding 3331311, 3331313, and 3331315) and 333132, and were obtained from the U.S. Department of Commerce (USDOC), U.S. Census Bureau, *Annual Survey of Manufactures; Value of Product Shipments: 2001*, Jan. 2003.

[26] USDOC, U.S. & Foreign Commercial Service (US&FCS), *Best Prospects/Industry Overview: Construction Equipment*, created Jul. 19, 2000, found at *http://www.usatrade.gov/website/ForOffices.nsf*; and USDOC, *Chile: Mining Equipment*, Industry Sector Analysis, July 1, 1999, found at *http://www.stat-usa.gov*.

[27] USDOC, US&FCS, *Best Prospects/Industry Overview:Construction Equipment*, and *Best Prospects/Industry Overview: Mining Equipment and Supplies*, created July 19, 2000, found at *http://www.usatrade.gov/website/ForOffices.nsf*.

Potential Impact on U.S. Exports

Given the comparatively small Chilean market for these products and the global sourcing practices of U.S. manufacturers, the U.S.-Chile FTA is not likely to have a measurable impact on total U.S. exports of construction and mining equipment to Chile. In 2002, U.S. equipment exports to Chile totaled $221 million, accounting for just over 2 percent of total exports in this sector. Exports consisted almost wholly of off-highway dump trucks and machinery parts and accessories. Although these items were among the top 15 U.S. export items to Chile in 2002, Chile ranked 20th on the list of U.S. export destinations for this sector, with the bulk of overseas shipments delivered to traditional U.S. trading partners such as Canada, Mexico, Japan, and Western Europe. Moreover, while mining is a large and vital sector in the Chilean economy and construction activity is expected to grow, Chile's overall demand for imported machinery is relatively minor in comparison to other consuming nations; in 2000, Chilean imports of construction and mining equipment from all countries totaled $253 million.[28] Further, as many products in this sector are large and burdensome to ship and U.S. producers tend to rationalize production among their global operations, U.S. firms frequently supply foreign destinations such as Chile from their overseas factories as opposed to directly from the United States. U.S. producers have a strong manufacturing presence in both Brazil and Mexico, which have FTAs with Chile in force.

Although the U.S.-Chile FTA is not likely to generate a large increase in total U.S. exports, U.S. producers could increase shipments of certain products to Chile, particularly in light of the United States' historical dominance in the Chilean market and the potential for trade shifts. The United States is the number one supplier of imported construction and mining equipment to Chile, and Chilean consumers reportedly strongly prefer U.S. machines and parts for their quality, innovation, and after-sales service.[29] In light of the duty savings that will result from the immediate elimination of the existing 6-percent tariff rate on most construction and mining equipment,[30] Chilean customers will likely be more inclined to choose favored U.S. brands for future purchases. Likewise, because construction and mining machines are high-priced items, some U.S. producers have supplied large orders to Chile from Canada (which already has an FTA with Chile in force) to avoid the Chilean duty.[31] The U.S.-Chile FTA could induce U.S. producers to resume the shipment of expensive items and large transactions directly from their U.S. locations. The degree to which U.S.

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[28] Ibid. By comparison, Canada imported roughly $2.1 billion of construction and mining machinery in the same year. Strategis Canada Trade Data Online, found at *http://strategis.ic.gc.ca*, retrieved June 6, 2003.

[29] USDOC, US&FCS, and U.S. Department of State, *Chile: Mining Equipment*, July 1, 1999, and *Chile: Construction Equipment & Machinery*, Industry Sector Analysis, Dec. 1, 1997, both found at *http://www.stat-usa.gov.*

[30] Chile will immediately eliminate the 6-percent duty on all construction and mining products except certain cranes falling under HTS subheadings 8426.11.00, 8426.19.00, 8426.30.00, and 8426.41.00. Duties on these remaining items will be eliminated in eight equal annual stages, with such goods becoming duty free as of January 1 of year eight of the agreement.

[31] USDOC, US&FCS, and U.S. Dept. of State, *Chile: Mining Equipment*, July 1, 1999.

producers benefit, however, depends to a large extent on external factors driving demand for products in this sector, namely economic expansion and the initiation of building and excavation projects. Further, potential gains by U.S. producers could be mitigated by reported increased competition in the Chilean market from other global equipment producers, particularly those with which Chile has implemented or has negotiated FTAs, such as the EU and South Korea, both of which boast strong construction and mining equipment industries.

Copper[32]

Overview

The U.S. copper industry historically has been a dominant world copper producer. Its prominence began to diminish significantly during the early 1980s and its decline accelerated in the 1990s as vast rich copper resources were discovered and developed in numerous foreign countries, especially developing countries such as Argentina, Chile, Peru, and Indonesia. U.S. production has contracted substantially since 1997, because of the expansion of this low-cost foreign production. The U.S. copper industry has high unit production costs, mostly as a result of relatively low ore grades, strict U.S. land-use regulations that limit development of new ore deposits, and stringent environmental emission standards.

The copper industry is the primary component of Chile's mining industry, which is the largest singular component of Chile's economy[33] (8 percent of GDP),[34] and generates a significant share of the country's export earnings.[35] In contrast to the United States, Chile has relatively high-grade copper resources and low labor costs. In addition, the country has extensive policies designed to attract foreign direct investment (FDI).[36] Chilean refined copper production has increased steadily since the early 1990s, from 1.2 million metric tons to nearly 2.9 million metric tons, mostly as a result of extensive FDI. Chile is now the world's largest producer of both mined and

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[32] This sector includes products classified in HTS headings and subheadings 2603 (copper ores and concentrates) and 7401-7403.19 (unrefined and refined copper and related products).

[33] Santiago Times, "Chilean Copper Production Increases In March," May 1, 2003, found at Internet address *http://test.chirongroup.com/splash/stimes/*, retrieved May 1, 2003.

[34] Chilean National Statistics Institute (INE), found at Internet address *http://www.ine.cl/*, retrieved May 21, 2003.

[35] When by-products (i.e, molybdenum, rhenium, gold, and silver) from copper mining operations are included, mining regularly accounts for 40 percent of Chile's total export earnings. Chile produces nearly one-half of the refined rhenium in the world and is the second largest producer of molybdenum, behind the United States.

[36] Christopher B. Mapes, "Major Contraction of the Domestic Refined Copper Industry," *Industry Trade and Technology Review*, Dec. 2002, available at *ftp://ftp.usitc.gov/pub/reports/ittr/PUB3574.PDF*.

refined copper.[37] Chile continues to develop its copper production capabilities. Ongoing or anticipated expansions will add in excess of 500,000 metric tons to annual production.[38] In 2001, 94 percent of Chile's refined copper production was exported.[39] State-owned CODELCO is the largest copper producer in the world. However, private mines (owned mostly by large, international mining companies) produce two-thirds of all Chilean copper. Mining is the most attractive sector for foreign investment, absorbing 32 percent of total investment in Chile in 1974-2001.[40]

Both the United States and Chile produce refined copper[41] from conventional and leaching processes.[42] There are extensive mining, leaching, smelting, and refining facilities in both countries. The key structural difference is that the United States is also the world's largest terminal market for copper products, so it processes most of its mined copper into refined metal, and imports more to fully supply its needs; whereas Chile, being a minor consumer, exports a large share of its copper in the form of concentrate, mostly to Japan and China, which have smelting and refining operations but virtually no mining operations.

Potential Impact on U.S. Imports

The U.S.-Chile FTA will likely result in a minimal impact on U.S. imports and production of copper, and employment in the industry. Imports from many sources, including Chile, have been increasing substantially in recent years, mostly as a result of the competitive challenges noted previously. Refined copper cathodes, the principal U.S. import products in this sector, currently are assessed a U.S. duty rate of 1 percent.[43] The FTA provision for refined copper cathodes imported into the United States from Chile stipulates a tariff-rate quota of 55,000 metric tons qualifying for duty-free importation (with over-quota amounts dutiable at 0.5 percent) during the first year of

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[37] World Bureau of Metal Statistics (WBMS), "World Metal Statistics", December 2002.

[38] Aggregated from multiple published sources.

[39] WBMS, ibid.

[40] Foreign Investment Committee, "FDI in Chile", found at *http://www.foreigninvestment.cl/fdi_inchile/fdi_inchile.asp*, retrieved May 21, 2003.

[41] Copper is made directly from mined ore (primary production) or from recycled material (secondary production). Secondary refined copper accounted for approximately 1.7 million metric tons, or 11 percent of total world production of refined copper in 2002. The United States and Chile are not major producers of secondary refined copper.

[42] Primary copper is conventionally produced by mining and concentrating ores, smelting the concentrate, and refining the smelted product. It is also produced by a relatively low-cost leaching process which creates a copper-rich solution that is processed into refined copper without smelting. In 2002, conventional processing accounted for 80 percent of world mined copper. The product of both these processes is pure refined copper, which is consumed at downstream plants that produce copper and copper alloy wire, mill, or foundry products.

[43] Other sector products (i.e., copper ores and concentrates, unrefined copper, and related products) have virtually no tariffs.

the agreement and imposes no restrictions beginning in the second year of the agreement.[44] All other sectoral items proceed to zero tariffs immediately.

Total U.S. imports of refined copper increased from 647,000 metric tons in 1997 to 928,000 metric tons in 2002 as U.S. import reliance on refined copper from all sources has almost doubled since 1996.[45] Imports from Chile increased from 131,000 metric tons to 245,000 metric tons over this same period. Chile ranked as the second-largest U.S. supplier (surpassing Canada) in 2002, behind Peru with 288,000 metric tons.

Chile has well-established export markets, and the U.S.-Chile FTA is not expected to measurably alter the overall volume of Chilean exports. Chile exported 4.7 million metric tons of copper in 2001, of which 58 percent was refined. The largest markets for Chile's refined copper were the United States (19 percent share), Italy (16 percent), China (12 percent), and France (11 percent). Chile's trade with its FTA partners is small because consumption is small. The 2001 market share for refined copper with FTA partners was 40 percent for the Mercosur countries, 28 percent for Mexico, and 28 percent for the EU (FTA in force as of February 2003).[46] The U.S.-Chile FTA may induce some minor displacements in cathode trade markets.

Potential Impact on U.S. Exports

The U.S.-Chile FTA is likely to have little or no effect on U.S. exports to Chile,[47] or on U.S. production of copper or employment in the industry. Chile is a small consumer of copper (only 90,000 metric tons in 2001), and can meet most of its needs from domestic mine production.

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[44] U.S. industry representatives requested a four-year phase-out of the refined copper tariff, because they claim that tariffs as low as 1 percent can have a considerable effect on commodity industry pricing and because of the present competitive problems faced by the U.S. industry. USTR, "Report of the Advisory Committee on Trade Policy and Negotiations (ACTPN)," Feb. 2003, found at *http://www.ustr.gov/new/fta/Chile/ac-isac11.pdf*, Mar. 11, 2003.

[45] In value terms, imports are virtually the same. The price of copper declined substantially during 1997-2002, because production growth exceeded consumption growth.

[46] Chile also has an FTA with Canada, but only exports copper concentrates for smelting to Canada.

[47] The United States has not exported cathodes to Chile since 1997, and has not exported refined copper in any form since 2001.

Fruit[48]

Overview

The United States is a major world producer, trader, and consumer of fruit. The United States ranked fifth in the volume of global fruit production in 2002, behind China, the EU, India, and Brazil.[49] During 1998-2002, the total volume of U.S. fruit production dropped by about 3 percent, to 33.4 million metric tons. U.S. production of fresh fruit totaled $11.6 billion in 2002.[50] The primary types of fruit produced in the United States, in terms of value, are grapes (25 percent of the value in 2002), oranges (16 percent), apples (14 percent), and strawberries (11 percent). This ranking differs when based on quantity, owing to market price differences between the various types of fruit. Leading U.S. fruit production items, in terms of quantity, include oranges (34 percent of the total in 2002), grapes (20 percent), and apples (12 percent).

The specific fruit items of concern in this study are fresh or dried avocados and certain prepared or preserved fruit.[51] Avocados ranked seventh in value among total U.S. fresh fruit production in 2002, at $373 million. Although avocado production ranked sixteenth in terms of quantity in 2002, such production led in terms of growth during 1998-2002, at 42 percent. The U.S. market for certain fresh fruit, such as avocados, is growing, largely fueled by consumers' health concerns.

The United States is a major producer of avocados, accounting for about 8 percent of the total global quantity in 2002. There were about 6,000 avocado farms in the United States in 1997, the bulk of which were in California.[52] Additionally, the United States is the leading world producer of canned deciduous fruit, accounting for about 53 percent of the total world quantity in 2002.[53] Production totaled about 1.2 million metric tons in 2002. Products included canned peaches (37 percent of the world total in 2002), pears (75 percent), mixtures (56 percent), and apricots (36 percent). There are 7 processors of canned deciduous fruit in the United States, located mainly in California and Washington. The U.S. industry has been experiencing financial difficulties in recent years, leading to the bankruptcy of the largest processor in 2000.

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[48] This sector includes products classified in HTS chapters 8 and 20. The U.S. fruit sector comprises a broad range of fruit items and product forms. The principal fruit product forms in the U.S. market are fresh, juice, frozen, and canned. In addition, the bulk of grape production is utilized in the production of wine. Most citrus fruit is processed into juice.

[49] Data from UN/FAO. Data represent primary product forms before processing.

[50] Farm-value basis, all uses. Compiled from various sources by USITC staff.

[51] Fresh or dried avocados are classified in HTS subheading 0804.40 and certain processed fruit is classified in HTS subheadings 2008.20 through 2008.99. Dried avocados are a minor item. The bulk of U.S. production of the subject prepared or preserved fruit is canned deciduous fruits, including peaches, pears, apricots, and mixtures.

[52] U.S. Department of Agriculture, *1997 Census of Agriculture, Volume 1: Part 51, Chapter 1, United States Summary and State Data, National-Level Data*, found at *http://www.nass.usda.gov/census/census97/volume1/us-51/toc97.htm*, retrieved Apr. 16, 2003.

[53] Not including China, for which data are not available.

Capacity has decreased recently in response to rising imports, mostly subsidized[54] EU products, and a static domestic market, as consumers shift to fresh fruit.

The United States possesses a relatively large amount of quality land, a variety of climates, excellent infrastructure, leading technology, and a large domestic market, all of which are factors aiding the competitiveness of the fruit sector. Mitigating factors include relatively high costs, mainly related to labor, land values, and environmental restrictions. Changes in harvesting, storage, and shipping technology; trade agreements that have lowered tariffs and addressed phytosanitary barriers; structural changes in the food distribution and retail sectors; and demographic shifts leading to changes in consumer tastes have also shifted the competitive landscape for the U.S. fruit sector, both in domestic and international markets.

U.S. imports of fresh or dried avocados increased from $64.4 million in 1998 to $134.7 million in 2002, or by 109 percent. Chile was the leading supplier during the period, accounting for 61 percent of the total in 2002. Imports from Chile rose by 75 percent during the period. However, Chile lost market share to Mexico during the period, as a longstanding phytosanitary restriction on Mexican avocados was lifted.[55] The United States is the second-leading global market for avocados, accounting for 22 percent of the total global quantity in 2001.

U.S. imports of the subject prepared or preserved fruit totaled $672.8 million in 2002, up 34 percent from the level in 1998. The leading items in 2002 included canned pineapples (28 percent of the total value); certain prepared or preserved fruit other than pulp and excluding mixtures (13 percent); and prepared or preserved avocados (7 percent). The leading sources of the aggregate imports in 2002 included Thailand (17 percent of the total value), China (16 percent), and the Philippines (15 percent). Imports from Chile are negligible, totaling $257,103 in 2002. The principal products imported from Chile include canned fruit mixtures (38 percent of the value in 2002) and prepared or preserved grapes (36 percent).

Chile's fruit sector is small relative to that of the United States. Chile ranks well behind major global producers and accounted for less than 1 percent of the quantity of world fruit production in 2002. However, the Chilean fruit sector has been growing, with output rising by 7 percent in quantity during 1998-2002 to 4.3 million metric tons. The leading fruit items include grapes (40 percent of the total quantity in 2002) and apples (26 percent). Avocados accounted for 3 percent of total Chilean fruit production in 2002 and was the second fastest growing item during 1998-2002, rising by 83 percent.

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[54] For an additional description of subsidies for these products, see USDA, FAS, *Greece Canned Deciduous Fruit Annual 2003*, GAIN Report #GR3005, Apr. 18, 2003, found at *http://www.fas.usda.gov/gainfiles/200304/145885351.pdf*, retrieved May 22, 2003.

[55] Chile was not subject to this restriction.

Chile is a minor producer of canned deciduous fruit, accounting for about 3 percent of the volume of global production in 2002. The leading canned fruit items produced by Chile include canned peaches and canned fruit mixtures.

Chile possesses less land area than the United States, but has a wide range of climates and can produce a variety of fruits. Chile is also counterseasonal to the United States and can market fresh fruit during periods when U.S.-produced supplies are low. Chile competes with other Southern Hemisphere sources, such as Argentina, Australia, and South Africa, in the U.S. market for offseason fresh fruit. Favorable competitive factors compared to the United States include lower production costs (mainly labor) and the exchange rate.[56] Disadvantages include a relatively small domestic market, a reliance on exports, and a long distance to U.S. markets.

Chilean exports of fresh avocados totaled $78.1 million in 2002, up 75 percent from 1998. The United States typically has been the major export market, accounting for 97 percent of the total value in 2002.[57] Avocados accounted for about 4 percent of the value of total Chilean fruit exports in 2002. Chile is the third-leading exporter of avocados, accounting for about 18 percent of the total world quantity in 2001.

Chilean exports of canned peaches have been relatively stagnant in recent years and totaled $29.5 million in 2002. The United States typically has been a minor export market, taking less than 0.5 percent of the value of such exports that year. Chile's major markets include Mexico, Peru, Ecuador, and Colombia, all of which offer duty-free treatment under free trade agreements. Chilean exports of canned fruit mixtures reached $8.7 million in 2002. As with canned peaches, the United States is a minor market and Mexico is the leading export destination.

Potential Impact on U.S. Imports

The U.S.-Chile FTA will likely result in a measurable increase in U.S. imports of the subject fruit. For avocados, Chile is, by far the leading supplier of U.S. avocado imports, and the United States is Chile's leading export market. Although U.S. imports of avocados from Chile will be subject to a tariff rate quota over a 12-year period, the initial year in-quota amount that will be allowed duty free treatment (49,000 metric tons) represents nearly two-thirds of the current level of imports. The quota increases by 0.5 percent annually and is unlimited (total duty-free treatment) the last year. The current U.S. duty level is about 11 percent ad valorem equivalent, and imports have risen by 75 percent in terms of value during 1998-2002. Chilean planted area and production has increased substantially in recent years, and Chile is participating in a marketing agreement with U.S. producers to increase U.S. demand, which is growing.

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[56] USDA, FAS, *Chile Canned Deciduous Fruit Annual 2002*, GAIN Report #CI2025, Sept. 30, 2002, found at *http://www.fas.usda.gov/gainfiles/200209/145784034.pdf*, retrieved May 22, 2003.

[57] ODEPA, Comercio exterior silvoagropecuario, found at *http://www.odepa.cl*, retrieved Apr. 16, 2002.

The subsequent impact on U.S. production and employment probably would be limited by a number of factors. Chilean production (mainly August-January) is largely counterseasonal to U.S. production (concentrated during March-August) and competes more with Mexico and the Dominican Republic during most months. Under Article 3.18 of the FTA, avocados are subject, for a 12-year period, to an agricultural safeguard measure which allows the imposition of MFN rates[58] when the trigger price of $1.05 per kilogram is breached. This compares with an average unit value ranging between $1.06 per kilogram and $1.37 per kilogram during 1998-2002 for U.S. imports from Chile. Chilean production may level in the future depending on prices and competition from other sources in export markets.[59] Moreover, Chile's network of FTAs with other countries ultimately will allow it to diversify export markets.

With respect to canned fruit, the U.S.-Chile FTA will likely result in a minimal immediate effect on U.S. imports of the subject items. Current U.S. duties for many of the relevant products (mainly canned deciduous fruit) are high, generally ranging between about 10 percent to 30 percent ad valorem. The staging for canned deciduous fruit under the FTA is a nonlinear, 12-year reduction, thus limiting the immediate impact on imports. In addition, most of the canned deciduous fruit products (pears, apricots, and mixtures) are subject to agricultural safeguard measures under Article 3.18 of the FTA, as discussed above. The trigger prices for these products are well below average unit values of U.S. imports from Chile during 1998-2002;[60] however, if Chile were to lower prices as the duties are reduced and reach the trigger price, this could limit imports. Further, Chile is a minor U.S. import supplier of most of the fruit items of concern and exports mainly to markets providing duty-free treatment under FTAs, including the EU, Mexico, and Canada. The U.S. canned fruit market is static and imports currently are dominated by subsidized EU products (mainly from Greece and Spain), further limiting short-term growth opportunities for Chile.

In the longer term, the U.S.-Chile FTA likely will result in a measurable increase in U.S. imports of the subject fruit from Chile. Chile is a lower-cost producer than the United States, whose industry is emerging from financial difficulties and restructuring. Chile could shift exports from more distant markets, particularly the EU, in response to substantial duty reductions in the U.S. market. However, Chile is a minor supplier to the United States[61] and is one of several competitors (Argentina, Australia, and South Africa) currently negotiating bilateral or multilateral FTAs with the United States, which might negate any competitive advantage conferred by duty-free treatment under the U.S.-Chile FTA. Moreover, any increase in imports from Chile could displace other imports as well as domestic production.

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[58] The additional duty may be less than the MFN rate depending on the margin by which import unit values are below the trigger price. See Article 3.18(3).

[59] USDA, FAS, *Chile Avocado Annual 2002*, GAIN Report #CI2031, Dec. 2, 2002, p. 1.

[60] There were no U.S. imports of canned apricots from Chile during the period. However, the average unit value of such imports from all sources exceeded the trigger price by a substantial margin.

[61] In 2002, Chile accounted for less than 1 percent of the value of U.S. imports of canned deciduous fruit.

The impact of the U.S.-Chile FTA on U.S. production and employment likely will be gradual, owing to the extended phasing in of tariff reductions. Any impact would be affected by other factors, such as shifts among import suppliers, FTAs with other competitors, the long-term viability of EU production, and U.S. market conditions.

Potential Impact on U.S. Exports

The U.S.-Chile FTA likely will result in a minimal increase in U.S. exports of the subject fruit. Chile represents a negligible market for U.S. exports of fruit owing to its small size, level of disposable income, and a competitive domestic supply. U.S. exports of the subject fruit generally are small compared with production and are mainly destined for larger and more proximate markets, such as Canada, the EU, Japan, and Mexico. There were no U.S. exports of fresh or dried avocados to Chile during 1998-2002, and U.S. exports of the subject prepared or preserved fruit to Chile totaled $441,443 in 2002. Also, Chilean tariffs are relatively low for the subject fruit products, with the FTA specifying a base rate of 6 percent ad valorem and an immediate tariff elimination for all products in this category except canned peaches.[62]

Methanol[63]

Overview

Methanol is produced in the United States by 12 companies operating 13 plants, most of which are located in Texas and Louisiana. Together these firms have almost 4 million metric tons of active methanol production capacity and another 1.5 to 2 million metric tons of older, less efficient capacity, which has been mothballed. Domestic production of methanol amounted to an estimated 3.3 million metric tons in 2002 valued at about $457.8 million. This represented about 39 percent of U.S. demand, which amounted to about 8.4 million metric tons, valued at slightly less than $1.1 billion during 2002.[64]

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[62] Canned peaches will be subject to a base rate of 6 percent ad valorem and a nonlinear, 12-year staging.

[63] Includes HTS subheading 2905.11.20. Methanol is an acyclic alcohol manufactured primarily by the catalytic reformation of natural gas, which can be used as a fuel or as a raw material in the production of other chemicals. Many of the firms producing methanol also manufacture a number of other chemicals, some of which use methanol as a raw material. The major downstream products made from methanol include formaldehyde, methyl tertiary-butyl ether (MTBE), chloromethanes, dimethylterephthalate, methylamines, solvents, and acetic acid. Production of formaldehyde, used in adhesives and construction products, and MTBE, used as a gasoline additive, together account for about 60 percent of world consumption of methanol.

[64] U.S. demand for methanol used in the production of MTBE may decline as a result of stricter regulations on MTBE use as a fuel additive being implemented in California and considered in other states. Any impact will likely affect U.S. manufacturers more than importers because domestic production costs are, on average, higher than those of most imported methanol.

Methanol production capacity worldwide was about 35.5 million metric tons in 2002. Total world production in 2002 is estimated to have been about 29.3 million metric tons valued at about $4.1 billion, or about 82 percent of capacity. During the past two decades the trend in this sector has been a shift in production from older, less efficient plants in the United States, Europe, and Japan toward newer, more efficient plants in developing countries and areas, such as Chile and the Middle East, which are rich in natural gas reserves[65] but have a limited local market for it. With the advantages of relatively inexpensive raw material and labor costs and modern large-scale manufacturing facilities, these countries are able to produce methanol relatively cheaply and have been able to supplant much of the domestic methanol production in a number of the more developed countries. For example, the United States, which accounted for nearly one-half of world methanol production capacity in the early1980s, now accounts for about 11 percent; while Japan has eliminated nearly all of its methanol production capacity.

Methanol is manufactured in Chile in three plants, all operated by the Canadian firm Methanex. Methanex also has methanol plants in several other countries and is the largest merchant market supplier of methanol in the world. Total production capacity for methanol in Chile amounts to about 2.7 million metric tons. The plants in Chile are currently estimated to be running at about 80 to 85 percent capacity.

Potential Impact on U.S. Imports

The U.S.-Chile FTA will likely result in a measurable increase in U.S. imports of methanol from Chile. U.S. demand for methanol is nearly three times that of domestic production, and the imported material from Chile is already competing successfully in the U.S. market. U.S. imports of methanol from Chile amounted to about 1.2 million metric tons in 2002 valued at about $133 million, or a little less than half of Chile's total production. Imports of methanol from Chile currently supply about 15 percent of U.S. consumption. Most U.S. imports of methanol from Chile currently enter free of duty under GSP. Removal of the 5.5 percent duty on methanol would likely allow Chile to expand its U.S. market share without being constrained by factors such as the GSP competitive need limits. Chile currently has excess capacity, at least some of which could be directed toward the U.S. market. In addition there is the potential for diversion of shipments from other foreign markets, where duties are imposed, to the U.S. market. This increase in U.S. imports of methanol from Chile may result in the further idling of some older U.S. production facilities and may displace imports from other sources.

[65] Natural gas can be readily processed into methanol, which is inexpensive and easy to ship relative to natural gas.

Potential Impact on U.S. Exports

The U.S.-Chile FTA will likely have no effect on U.S. exports to Chile. Currently, virtually all U.S. production of methanol is consumed domestically. U.S. exports of methanol account for less than 0.5 percent of U.S. production. In addition, there is essentially no significant market for methanol in Chile that would attract U.S. exports as indicated by the fact that virtually all of the methanol produced in Chile is currently exported.

Motor Vehicles[66]

Overview

The United States is the world's largest single-country producer[67] and consumer of motor vehicles, which includes passenger vehicles, medium- and heavy-duty trucks, and buses. In 2002, passenger car and commercial vehicle production reached 12.3 million units, and sales reached 17.1 million units.[68] Passenger vehicles—passenger cars and light trucks—account for approximately 97 percent of the production, sales, and trade in the U.S. motor vehicle sector; medium- and heavy-duty trucks and buses account for the remaining 3 percent. There are two U.S.-based passenger vehicle makers–General Motors (GM) and Ford.[69] However, a number of foreign-based automakers have established a substantial manufacturing presence in the United States.[70] Likewise, the U.S. passenger vehicle industry has a presence in nearly every market in the world. The U.S. industry manufactures and sells its vehicles globally, and has extensive linkages with foreign automakers and foreign parts suppliers. The United States consistently runs a deficit in motor vehicle trade, as U.S. automakers tend to produce in foreign markets instead of relying on exports from the United States. Additionally, the increasing integration and rationalization of automotive production in the NAFTA region, and the popularity of foreign models that are produced overseas, or the U.S. production of which is supplemented by imports, contribute to the U.S. motor vehicle trade deficit.

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[66] This sector includes items classified in the HTS under the following subheadings: 8701.20, 8702.10, 8702.90, 8703.22, 8703.23, 8703.24, 8703.31, 8703.32, 8703.33, 8703.90, 8704.21, 8704.22, 8704.23, 8704.31, 8704.32, and 8704.90.

[67] As a region, the EU produces more vehicles per annum than the United States.

[68] *Ward's Automotive Reports*, vol. 78, no. 3, Jan. 20, 2003.

[69] In 1998, U.S. automaker Chrysler merged with Daimler-Benz of Germany to form a new company named DaimlerChrysler.

[70] Foreign automakers with a manufacturing presence in the United States include Honda, Mitsubishi, Nissan, Subaru-Isuzu, and Toyota (Japan); U.S.-Japanese joint ventures Autoalliance International (Ford-Mazda) and New United Motor Manufacturing, Inc. (NUMMI) (GM-Toyota); and BMW and Mercedes-Benz (Germany).

The Chilean motor vehicle industry is considerably smaller than its U.S. counterpart. In 2001, motor vehicle production in Chile totaled 14,890 units, down 23 percent from 19,223 in 2000. Sales fell in 2001 as well; total motor vehicle sales of 102,340 vehicles dropped by 9 percent from the 2000 level of 111,824.[71] There are no indigenous Chilean automakers, and the only foreign automakers with an established manufacturing presence are GM and Peugeot (France). GM's current installed capacity is 15,000 units, and the plant produces Isuzu light commercial vehicles and pickups; these vehicles are badged Chevrolet/LUV. Peugeot's installed capacity is 4,000 units; the plant assembles several passenger vehicle models from completely knocked down kits.[72] Approximately 80 percent of the Chilean motor vehicle fleet is imported. Japan and Korea, the leading suppliers, tend to export smaller, low-cost vehicles to Chile that are not subject to Chile's luxury tax on imported automobiles (see below). Chile also imports vehicles from Brazil, Mexico, the United States, France, Argentina, Germany, Canada, and Spain.[73]

U.S. motor vehicle exports to Chile currently face Chile's uniform 6-percent ad valorem tariff. In addition, exports to Chile are subject to a luxury tax on imported motor vehicles in an amount equal to 85 percent of the excess over a CIF threshold level ($16,361) that is indexed annually to changes in the U.S. Producer Price Index.[74] Chile is a party to FTAs with a number of major motor vehicle producing countries, including the EU, Canada, and Mexico. Chile and its Mercosur partners have separate bilateral agreements covering trade in motor vehicles. Brazil and Chile agreed to tariff-free trade in autos (implemented late 2000).[75] Argentina and Chile agreed that, starting in 2002, Chile could export 9,000 vehicles to Argentina duty-free and Argentina could export 27,000 vehicles to Chile duty-free; these quotas will increase each year until they are eliminated and vehicle trade between the two countries becomes entirely duty-free in 2006.[76] Heretofore, U.S. automakers have preferred to export vehicles to Chile from their manufacturing facilities in some of these countries that have preferential agreements with Chile, rather than from the United States.

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[71] Automotive News, *Market Data Book, 2002,* Detroit: Crain Communications, 2002, pp. 8-9.

[72] USDOC, Office of Automotive Affairs, *Free Trade Area of the Americas (FTAA): Key Automotive Markets and Issues*, May 9, 2002, p. 36, found at *http://www.ita.doc.gov/td/auto/FTAAAuto.pdf*, retrieved Apr. 1, 2003.

[73] Ibid., pp. 33, 35-36.

[74] U.S. motor vehicle exports to Chile also face an 18-percent value-added tax. "The U.S.-Chile Free Trade Agreement, Report of the Industry Sector Advisory Committee on Transportation, Construction, Mining, and Agricultural Equipment for Trade Policy Matters (ISAC 16)," Feb. 28, 2003.

[75] USDOC, Office of Automotive Affairs, *Free Trade Area of the Americas (FTAA): Key Automotive Markets and Issues*, May 9, 2002, p. 31.

[76] "Chile, Argentina Form For [sic] Auto Trade Agreement," *The Autoparts Report*, May 22, 2002, p. 5.

Potential Impact on U.S. Imports

The U.S.-Chile FTA is not likely to have a measurable impact on U.S. imports of motor vehicles from Chile. U.S. imports of motor vehicles from Chile are negligible; in the past five years, only five vehicles have been imported from Chile. While the U.S.-Chile FTA would allow U.S. automakers, in particular GM, to integrate Chilean operations into their global production plans, providing opportunities for rationalization of production and flexibility in sourcing, there is not likely to be an increase in U.S. imports from Chile. Vehicles produced in Chile do not meet the comparatively higher safety and emission standards required for vehicles sold in the U.S. market. Moreover, there is no established automotive supplier industry in Chile, and the cost of shipping components to Chile for export vehicle assembly would be prohibitive.[77] In the U.S.-Chile FTA, the United States has agreed to eliminate tariffs on all motor vehicles effective on January 1 of the first year of entry into force. The U.S. tariff on passenger cars is 2.5 percent; the tariff on buses is 2 percent; the tariff on road tractors for semi-trailers and certain truck cab chassis is 4 percent; and the tariff on trucks, including pickups, is 25 percent.

Potential Impact on U.S. Exports

The U.S.-Chile FTA will likely have a small measurable impact on U.S. exports of motor vehicles to Chile. U.S. exports of passenger cars[78] are the twelfth-leading U.S. export to Chile; however, Chile ranked nineteenth in terms of motor vehicle markets for U.S. exports, accounting for far less than 1 percent of total U.S. motor vehicle exports in 2002.

Chile has agreed to eliminate its 6-percent tariff on most motor vehicle imports,[79] as well as phase out over a four-year period its 85-percent luxury tax on imported motor vehicles.[80] The U.S. industry currently serves the Chilean market through local production (GM); regional production in Brazil, Argentina, and other South American countries; and exports from Canada, Mexico, and the United States. The FTA will likely be an engine for overall economic growth in Chile, which typically leads to increased consumer demand for motor vehicles; as a result, U.S. motor vehicle exports to Chile are likely to increase.[81]

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[77] U.S. industry representative, e-mail communication to USITC staff, May 1, 2003.

[78] *Harmonized Tariff Schedule* subheading 8703.23.

[79] The Chilean tariff on imports of certain buses will be phased out over an eight-year period.

[80] The luxury tax will be reduced from 85 percent to 63.75 percent in the first year the agreement is implemented, to 42.5 percent in year two, and to 21.25 percent in year three, with the tariff eliminated at the start of year four. In addition, Chile will increase the threshold at which the tax is applied to $2,500 above the level provided for that year, and increase the threshold each subsequent year by an additional $2,500 until the tax is eliminated.

[81] U.S. industry representative, e-mail communication to USITC staff, May 1, 2003.

While the U.S. industry supports the U.S.-Chile FTA, it is concerned about the rules of origin negotiated in the agreement. For the motor vehicle sector, these rules only allow for build-up regional value content calculation, and not also a build-down calculation.[82] The build-up method for determining origin excludes the cost of labor in the production of the good. In the motor vehicle industry, labor is a substantial portion of the total production cost; therefore, this provision may make it difficult for U.S. automakers to qualify for preferential tariff treatment. The issue can be further complicated if some of the high-value components that automakers purchase are deemed non-originating because the supplier cannot include labor in its origin calculation.[83] While the elimination of the luxury tax is the most important facet of the U.S.-Chile FTA for the automotive industry, the exclusion of build-down regional value content–which permits the inclusion of the cost of labor–as a method for determining origin may prevent some U.S. exports from realizing the benefits of Chilean tariff elimination specified in the FTA.

Oilseeds, Oilseed Products, and Vegetable Oil[84]

Overview

The United States is the leading soybean producer and exporter in the world, accounting for one-half of world's exports in 2001-02;[85] it is also a major exporter of soybean oil, corn oil, sunflower-seed oil, and soybean meal. Argentina and Brazil dominate world soybean meal exports with a combined 60-percent share of world trade in 2001-02; the United States (with a 15-percent share) is the fourth leading meal exporter (behind the EU), according to data of the USDA. A similar situation exists with regard to soybean oil: Argentina and Brazil in 2001-02 accounted for 60-percent of world soybean oil exports; the EU, 21 percent; and the United States, 11 percent.[86] The Argentine currency devaluation since 2000 bolstered the competitive advantage of Argentine meal and oil, and the Argentine Government in recent years has used

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[82] "The U.S.-Chile Free Trade Agreement, Report of the Industry Sector Advisory Committee on Transportation, Construction, Mining, and Agricultural Equipment for Trade Policy Matters (ISAC 16)," Feb. 28, 2003.

[83] U.S. industry representative, e-mail communication to USITC staff, May 1, 2003.

[84] This sector includes soybeans (HS subheading 1201), soybean meal (HS subheading 2304.00), and animal, and marine animal and vegetable oil (mostly soybean, cottonseed, corn oil, and sunflower seed oil) (HS subheadings 1501 through 1517). The term, oilseeds, refers to crops containing vegetable oil in significant proportions and for the most part used as raw materials in the manufacture of vegetable oil and oilseed meal. Oilseed products include vegetable oil, oilseed meal, and animal or marine animal fats and oil (such as fish oil), and protein meal (fish meal). Oilseed meal and fish meal are used in livestock feed. Vegetable oil, fish oil, and animal fats (such as tallow or lard) are used mainly as food in forms such as margarine, salad and cooking oil, or baking and frying fats.

[85] For marketing year 2001/02; USDA, FAS, *Oilseeds: World Markets and Trade*, Jan. 2003, tables 5-8.

[86] Ibid.

differential export taxes to encourage the export of soybean meal and soybean oil rather than soybeans.[87]

In 2001, U.S. exports to Chile of all oilseeds and oilseed products amounted to less than $1 million, composed entirely of vegetable oil (mostly corn oil).[88] In 2001, there were no U.S. exports of soybeans, soybean oil, or soybean meal to Chile. In 1997, U.S. exports to Chile were $17 million, composed of $10 million of U.S. soybean meal, $5 million of U.S. soybeans, and $1 million of other vegetable oils.

Chile grows small amounts of rapeseed and sunflower seed[89] but is a substantial importer of oilseeds (mostly soybeans), vegetable oil, and oilseed meal. Owing to its abundant fisheries, Chile is the second leading fish oil and fish meal producer in the world. Chile's primary fat and oil products are fish meal and fish oil; it consumes nearly all fish oil produced, but exports about two-thirds of its fish meal output.[90]

Chile has a modern oilseed crushing sector that uses both domestic and imported oilseeds to produce vegetable oil and oilseed meal (the latter destined for animal feed within Chile). Strong demand in Chile for meat has lead to a substantial increase in oilseed meal demand, which is likely to grow over time. Chile has used the price band system to protect domestic growers of oilseeds, domestic processing of oilseeds, and domestic fish oil production, and to discourage imports of vegetable oil.[91]

In 2001, Chile imported from all countries about 100,000 metric tons of soybeans and other oilseeds, valued at $26 million; and about 200,000 metric tons of vegetable oil, valued at $102 million.[92] Chile also imported about 400,000 metric tons of soybean meal from Argentina and Paraguay.[93] Over 90 percent of the oilseeds and products came from Argentina, and the remainder from Bolivia and Paraguay.[94] The Chilean

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[87] USDA, FAS, *Argentina's Economic Crisis,* GAIN Report No. AR2054, Oct. 18, 2002.

[88] U.S. exports of oilseeds and oilseed products to all countries amounted to $8.3 billion in 2001, according to data of the U.S. Department of Commerce. Chile was thus a negligible market for these U.S. exports.

[89] In 2000, Chile produced 67,000 metric tons of rapeseed and 3,000 metric tons of sunflower seed on 24,000 hectares. USDA, FAS, *Chile Agricultural Situation, 2001*, GAIN Report No. CI1033, Nov. 16, 2001, table 3.

[90] About 95 percent of Chilean fish oil production of 151,000 metric tons in 2001/02 was consumed domestically; Chile consumed 30 percent, and exported 70 percent of its 780,000 metric tons of fish meal production. According to ODEPA, Agricultural Ministry, Chile, cited in *Oil World Statistics Update*, Aug. 9, 2002, pp. 11-17 and 11-19.

[91] The price band is discussed in chapter 1. For vegetable oil, the price band covers primarily soybean, sunflower seed, rapeseed, cottonseed, and palm oils under HS subheadings 1507 through 1515.

[92] Government of Chile, *Bolentin Estadistico—Comercio Exterior Silvoagropecuario,* No. 27, Nov. 2002, pp. 14 and 21.

[93] Source: ODEPA, Agricultural Ministry, Chile, cited in *Oil World Statistics Update*, Aug. 16, 2002, pp. 28-59.

[94] Government of Chile, *Bolentin Estadistico–Comercio Exterior Silvoagropecuario,* no. 27, Nov. 2002, p. 21.

vegetable oil imports consisted almost entirely of fully refined and/or prepared mixtures of vegetable oil products, which are not covered by the price band;[95] there were few imports of crude or refined vegetable oil covered by the price band.

Potential Impact on U.S. Imports

Chile exports few oilseed products except fish meal and very small amounts of fish oil, is a relatively high-cost producer of oilseeds, and is an importer of vegetable oil, oilseeds, and oilseed meal. U.S. duties on these products are negligible, and U.S. imports of fishmeal from Chile enter duty-free. For these reasons, the U.S.-Chile FTA is likely to have no effect on U.S. imports of oilseeds, oilseed products, and vegetable oil.

Potential Impact on U.S. Exports

The FTA may allow the United States to increase soybean exports in modest amounts to Chile (less than $10 million annually, as explained below), recovering some sales lost since the mid 1990s to Argentina, during certain off-season months.[96] Argentina, Bolivia, and Paraguay already have duty-free access to the Chilean market. Without the 6-percent duty, U.S. soybeans may gain some sales in the Chilean soybean market during September to March when South American soybean production is seasonably low, and U.S. soybeans are priced below the South American product. However, Argentine vegetable oil and soybean meal undersell U.S. products, and these U.S. oilseed products would not likely be competitive in Chile even with duty-free access.

For example, during September-March 2001-02 when U.S. soybeans undersold Argentine soybeans,[97] Chile imported 80,000 metric tons of soybeans (of an annual total 107,000 metric tons).[98] If U.S. soybean exporters had supplied about one-half of the 80,000 metric tons, U.S. exports of soybeans would have amounted to 40,000 metric tons (valued at about $7 million). Since the United States exported about 27 million metric tons of soybeans in 2001-02 to all foreign markets, this would still be a negligible increase (0.1 percent). Moreover, higher freight cost from the United States than Argentina may offset some of this U.S. seasonal price advantage.

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[95] Argentine exports to Chile are duty free under HS subheading 1517.90. About 98 percent of vegetable oil imports into Chile occurred in 2001 under HS subheading 1517.90, a category that includes fully refined, consumer-ready vegetable oil or vegetable oil mixture products, except margarine. Government of Chile, *Bolentin Estadistico–Comercio Exterior Silvoagropecuario,* No. 27, Nov. 2002, p. 21.

[96] The harvest periods for the South American and U.S. soybean crops differ by roughly six months.

[97] In 2001/02, Argentine soybeans (f.o.b. Buenos Aires) on average sold for $179 per mt, whereas U.S. soybeans sold for $174 per mt (f.o.b. Illinois); however, during Sept.-Mar., U.S. soybeans undersold Argentine beans by margins ranging from $2 to $21 per mt. USDA, FAS, *Oilseeds: World Markets and Trade*, Jan. 2003 and May 2002, table 20.

[98] Data from *Oil World Statistics Update*, Aug.16, 2002, pp. 28-59. The total is for calendar year 2001.

It is unlikely that the U.S.-Chile FTA will result in significant increases in U.S. exports of oilseed meal and vegetable oil to Chile. Chile's proximity to Argentina and Brazil, both large, efficient, low-cost producers with duty-free access to the Chilean market, places U.S. producers at a competitive disadvantage. Argentina in particular is well established in the Chilean market at prices lower than those of most U.S. producers.

With regard to vegetable oil, 98 percent of imports of vegetable oil into Chile in 2001 consisted of fully refined or mixtures of vegetable oil that entered duty-free from Argentina;[99] the United States exports few of these products except to Mexico and Canada. Argentine soybean meal in every month of 2001/02 undersold U.S. soybean meal by an average 13 percent; the higher freight cost from the United States widens this price gap, making U.S. soybean meal uncompetitive in Chile.[100]

The Chilean price band on crude vegetable oil imports is replaced under the FTA with a 31.5 percent duty (Chile's WTO bound rate) not to be eliminated for 12 years. This prohibitive duty on the leading U.S. vegetable oil exports (soybean oil, corn oil, and sunflower-seed oil) will not be reduced substantially for nine years. The higher-cost Chilean vegetable oil production will be protected from competition from U.S. and Argentine crude vegetable oil during this period. Even after the tariff is removed, it is likely that Argentina will widen its dominance of the Chilean vegetable oil market, although there may be some increase in U.S. exports of corn oil.

Prepared/Preserved Tomato Products[101]

Overview

The U.S. tomato processing industry is one of the world's largest producers of processed tomato products. An abundance of raw tomatoes for processing, together with an efficient, highly-automated, cost-effective processing sector, enable the U.S. industry to be competitive with industries in most other countries, at least for sales in the U.S. market. The United States is also a large importer of processed tomato products. A

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[99] The price band did not apply to HS subheading 1517.90.

[100] The price for Argentine soybean meal (f.o.b. Buenos Aires) was $157 per mt, and for U.S. soybean meal (f.o.b. Decatur) $180 per mt. USDA, FAS, *Oilseeds: World Markets and Trade*, Jan. 2003, table 20.

[101] Includes HTS subheadings 2002.10.00 (tomatoes whole or in pieces), 2002.90.40 (tomato powder), and 2002.90.80 (other prepared or preserved tomatoes, including paste, puree, and sauce). This sector includes prepared or preserved (i.e., canned) tomatoes, whole or in pieces, tomato powder, and canned tomato paste, puree, and other canned tomato products. Some of these products are sold in retail- and institutional-size containers ready for use by the final consumer, whereas others are provisionally preserved in bulk containers for future use. The overall U.S. vegetable-processing sector comprises a broad range of vegetables, with production of the 10 major vegetables for processing (including tomatoes) amounting to an estimated $1.4 billion in 2001. USDA, NASS, *Vegetables*, May 2002.

number of countries produce significant amounts of processed tomato products and most of these countries are believed to be using similar equipment and processing technology, and all are believed to be processing raw tomatoes locally grown.

The U.S. tomato-processing industry is made up of an estimated 50 firms, with most canneries located in California and the number of canneries having ceased operations in recent years. Many canneries are processing raw tomatoes into semifinished (i.e., bulk, concentrated paste) and finished products; other firms are principally processing provisionally preserved paste and other bulk products into finished products. Some canneries are processing a broad assortment of finished tomato products (e.g., canned tomatoes, paste, and sauce). A few other firms are processing a limited assortment of other vegetables as well as tomatoes. Tomato powder is produced by a much smaller number of firms and in very small quantities relative to the production of canned tomato products.

The tomato-processing industry in Chile is small relative to that in the United States, with an estimated eight canneries operating in 2002, up from six canneries in 2000. The Chilean climate, characterized by dry, warm days and cool nights, is excellent for growing high quality, deep-red tomatoes most desirable for processing.[102] Although Chilean processors produce canned whole, diced, and crushed tomatoes, more than 95 percent of their annual processing-tomato harvest is destined for the production of tomato paste, most of which is intended for export.[103] Chile is neither a major source of U.S. imports of processed tomato products nor a principal market for U.S. exports. There is no direct government support of the tomato processing sector in Chile, much as with the corresponding industry in the United States.[104] Most of Chile's exports of processed tomato products have been principally to neighboring Latin American countries, including Argentina, Brazil, and Venezuela, with exports to such markets expected to continue depending upon the stability of the economy in each market.[105]

Potential Impact on U.S. Imports

The U.S.-Chile FTA will likely have a minimal impact on total U.S. imports of processed tomato products in both the immediate and long term. There are no TRQs or other nontariff measures applicable to imports from Chile, although the existing duties are significant at 12.5 percent ad valorem for canned tomatoes whole or in pieces and 11.6 percent for all other canned tomatoes and for dried tomatoes. The 11.6-percent duty on canned tomatoes will be eliminated immediately upon implementation of a U.S.-Chile FTA and the 12.5-percent duty on all other preserved tomato products will

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[102] USDA, FAS, *Chile Tomatoes and Products Annual 2002*, Gain Report #C12032, Dec. 16, 2002, pp. 1-2, found at *http://www.fas.usda.gov.html*, retrieved Apr. 14, 2003.
[103] Ibid., p. 1.
[104] Ibid., p. 3.
[105] Ibid., p. 2.

be reduced to zero effective January 1 of year 12 after implementation.[106] Prepared or preserved tomato products are covered by agricultural safeguard measures that allow for the imposition of trigger prices of from $0.35 to $0.65 per kilogram,[107] but these trigger prices are generally well below the average unit values of imports from Chile and are not important to such trade.

All of the tomato products covered here are considered substitutes regardless of the country in which they are produced. There is little brand preference for most of these products, especially for those tomato products provisionally preserved in bulk containers. U.S. imports of processed tomato products from Chile, valued at $829,467 in 2002, accounted for about 4 percent of the total import value of these products in that year. U.S. imports of tomato powder from Chile amounted to $20,471 in 1998, the only year since 1998 in which imports were entered, and entered duty-free under the GSP program. U.S. imports of all tomato products in this sector consist largely of tomato paste, the product making up most of Chilean shipments to the United States, and canned tomatoes, little of which was received from Chile. Reportedly, export demand for Chilean-produced canned tomatoes has been falling in recent years.[108] Under certain market conditions, U.S. tomato product imports from Chile could exceed expectations and historical trends. But even so, the relative sizes of the U.S. and Chilean tomato processing sectors suggest only minimal impact on U.S. production and employment in this sector. Countries such as Chile are able to fill small windows of demand in markets such as the United States during years of reduced domestic production or limited availability of products from major suppliers, but generally lose out to other foreign producers when these producers return to the market with large volumes of product.[109]

Potential Impact on U.S. Exports

Elimination of the 6-percent duty under the U.S.-Chile FTA will likely have a minimal impact on total U.S. exports of canned whole tomatoes and other processed tomato products. Although the United States has been one of the world's largest producers of processed tomato products in recent years, exports of such products to all countries are a significant but small share of total U.S. production. Exports of these products are mainly to Canada, Japan, and Mexico. U.S. exports of canned whole tomatoes to Chile were valued at less than $10,000 in 2002, accounting for less than 1 percent of total U.S. exports of these products. U.S. exports of tomato paste and other processed

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[106] The duty on these latter tomato products will remain unchanged at the base rate for four years after implementation, fall by 8.3 percent annually during years 5 through 8, and then fall by 16.7 percent annually for years 9 through 12, becoming duty-free effective January 1 of year 12.

[107] Prepared/preserved tomato products are subject to safeguard measures under Article 3.18 of the FTA. The trigger prices are $0.47 and $0.35 per kilogram for canned tomatoes in containers less than 1.4 kilograms and 1.4 kilograms and over, respectively; $0.66 and $0.53 per kilogram for tomato paste in containers less than 1.4 kilograms and 1.4 kilograms and over, respectively; $0.61 and $0.38 per kilogram for tomato puree in containers less than 1.4 kilograms and 1.4 kilograms and over, respectively; and $0.65 per kilogram for other preserved tomato products regardless of container size.

[108] USDA, FAS, *Chile Tomatoes and Products*, Gain Report #C12032, p. 2.

[109] Ibid.

tomato products to Chile never exceeded $120,000 annually during 1998-2002. Unlike in the United States where a large share of domestic production is consumed within the producing country, processed tomato usage in Chile is just the residual of amounts not exported.[110] Demand for processed tomato products in Chile should not be impacted by the U.S.-Chile FTA and is expected to be filled by Chilean production or by imports from Mexican or EU suppliers. The construction of U.S.-style fast-food outlets could create some demand for U.S.-produced tomato paste and sauce, although Chile's import market for sauces and condiments is valued at an estimated $6.4 million, an extremely small market relative to that in the United States.[111] The recently implemented EU-Chile FTA may negatively affect the potential for increased U.S. exports to Chile since a number of EU countries are major global producers and exporters of processed tomato products as well.

Telecommunications Equipment[112]

Overview

The United States is the world's leading producer and consumer of telecommunications equipment. The industry produces a wide range of products including switching and transmission equipment for both wireline and wireless networks as well as consumer equipment such as facsimile machines and cellular telephones. The U.S. sector is globally competitive in technologically advanced products and primarily relies on imports from lower-wage countries for commodity-type products such as telephones and pagers. The demand for sector equipment expanded following the Telecommunications Act of 1996, which brought new companies into the market to compete with established service providers. Service providers invested heavily in expanding their wireline and wireless network capacity to accommodate new services and growing Internet usage, and to capture a larger share of the market. U.S. sector shipments increased by 65 percent, to $93.6 billion, during 1996-2000; while sector imports more than tripled to $29.1 billion.[113] The U.S. market for sector equipment decreased by 24 percent during 2000-2002,[114] while U.S. shipments of sector products, which faced growing competition from imports, decreased by

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[110] Ibid.

[111] USDA, FAS, "The United States and Chile Free Trade Agreement-What's at Stake for Sauces and Condiments," Commodity Fact Sheet, Mar. 2003, p. 1, found at *http://www.fas.usda.gov/info/factsheets/ChileFTA/sauces.html*, retrieved Apr. 14, 2003.

[112] Includes HTS heading 8517, and subheadings 8518.40.10, 8518.40.20, 8520.20.00, 8525.20.90, 8527.31.05, and 8527.90.40.

[113] U.S. Department of Commerce (USDOC), U.S. Census Bureau, *Communication Equipment: 2001,* Current Industrial Reports, Sep. 2002.

[114] Telecommunications Industry Association, *2003 Telecommunications Market Review and Forecast*, p. 3.

approximately 33 percent.[115] Employment in the sector, which had increased by less than 4 percent during 1996-2000 despite the large increase in output, decreased by 24 percent during 2000-02.[116]

Chile produces very little telecommunications equipment. The total value of domestic production ranged between $20 million and $25 million during 2000-02–4 to 5 percent of domestic consumption–and consisted principally of central office equipment, wire, and cable.[117] The Chilean market for sector equipment increased from $430 million in 2000 to $515 million in 2001 and decreased to approximately $485 million in 2002. Chile is among the most competitive markets for telecommunication services in Latin America, and Chilean service providers offer some of the highest subsidy rates in the region for cellular telephone handsets, both of which fuel the market for sector equipment. Competition ensures that service providers must update infrastructure and consumer equipment or lose market share, and subsidies defray the cost of cellular handsets to the customer and increase sales.

Potential Impact on U.S. Imports

The U.S.-Chile FTA will likely have no effect on U.S. imports of telecommunications equipment, because U.S. imports of these products already enter free of duty and the value of sector imports from Chile is insignificant, less than 1 percent of total U.S. sector imports. Further, Chile produces only a few sector products and the total value of this production is relatively small.

Potential Impact on U.S. Exports

The U.S.-Chile FTA is not likely to have a measureable effect on U.S. exports of telecommunications equipment because Chile is not a major market for sector exports, accounting for less than 1 percent of the total, and current Chilean duties of 6 percent on these products are relatively low. However, it is possible that the FTA will have a small effect on U.S. exports of cellular telephones, the leading U.S. sector export to Chile. Cellular telephones accounted for 39 percent of total U.S. sector exports to Chile in 2002. Upon entry into force, the agreement immediately eliminates the 6-percent duty that Chile currently applies to imports of cellular telephones from the United States.

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[115] USDOC, U.S. Census Bureau, *Communication Equipment: 1991,* Current Industrial Reports, Sept. 1992; *Communication Equipment: 2001,* Current Industrial Reports, Sept. 2002; and *Manufacturers' Shipments, Inventories and Orders*, Current Industrial Reports, Dec. 2002.

[116] U.S. Bureau of Labor Statistics database found at *http://146.142.4.24/labjava/outside.jsp?survey=ee.htm*, retrieved Apr. 14, 2003. Many firms in the sector have adjusted their business models in recent years to deal with the new market environment. Whereas many sector firms had previously tried to develop and maintain manufacturing capacity for a wide range of products and to provide a wide range of services, an increasing number of firms now focus on their core competencies and rely to a greater extent on outsourcing. This approach has led to the growth of contract manufacturing, which accounts for an increasing share of sector production.

[117] USDOC, U.S. Foreign and Commercial Service, and U.S. Department of State, *Chile Country Commercial Guide FY2003 - Leading Sectors for U.S. Exports & Investments*, Aug. 28, 2002, found at *http://www.buyusainfo.net/info.cfm*, retrieved Apr. 15, 2003.

Although the total value of cellular telephones imported by Chile from the United States decreased by 78 percent to $36.6 million during 1999-2002, it was the fourth largest market for these exports in 2002, accounting for approximately 6 percent of the U.S. total. U.S. exports of cellular telephones to Chile and other markets are likely to continue their downward trend because many of these exports use a standard that is not widely used outside the Western hemisphere.[118] As Chile upgrades its cellular network, it likely will increasingly rely on cellular telephones using standards that are widely used in Europe and Asia, thereby bringing increased competition from suppliers in these regions. The FTA may mitigate this decrease, but not reverse it.

It is not likely that this agreement will have a measureable effect on U.S. exports of certain transmission apparatus,[119] the second largest U.S. sector export to Chile. Although this apparatus accounted for 17 percent of total U.S. sector exports to Chile in 2002, it comprised less than 2 percent of U.S. exports of this product to all markets during 2000-02.

Wheat and Wheat Flour[120]

Overview

The United States is the leading wheat exporter in the world, accounting for about one-quarter of world's exports in 2001/02.[121] Canada and Argentina are competitive wheat exporters, particularly in the Western Hemisphere, and are the other primary suppliers of wheat to the Chilean market. Canada exports wheat to Chile duty free under the Canada-Chile FTA, and supplied 70 percent of Chilean wheat imports in 2001.[122] Argentina, which supplied wheat to Chile duty free under the Chile-Mercosur FTA, and the United States each accounted for about 15 percent of Chile's wheat imports in that year. Canada dominates world trade in Durum wheat, whereas the U.S. competitive advantages lies with non-Durum wheat.

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[118] Most wireless telecommunications carriers in the United States currently use one of two digital standards, TDMA or CDMA, while the GSM standard is most widely used digital standard in Europe and Asia. The TDMA standard also is widely used in Latin America, although as wireless technology evolves it is increasingly being replaced by a variation of the CDMA standard.

[119] Transmission apparatus incorporating reception apparatus are covered by HTS subheading 8525.20.9080. This product category may encompass a variety of products not otherwise specified in the HTS; therefore the conditions of competition for the industries cannot be more fully described.

[120] TIncludes HS heading 1001 and 1101. The wheat and wheat flour sector includes both unmilled wheat and milled wheat flour, the primary processed product derived from wheat. There are two major types of wheat traded in the world: Durum wheat destined for pasta products, and non-Durum wheat, destined for wheat flour (that mostly goes into bread). Bread, and the more highly processed baked products, cookies, and fully prepared consumer products such as pasta, are not included in this sector write up.

[121] Marketing year 2001/02. USDA, FAS, *Grain: World Markets and Trade*, Jan. 2003, p. 7.

[122] USDA, FAS, *Chile: Grain and Feed Annual 2002*, GAIN Report No. CI2021, Aug. 22, 2002, p. 5.

Unlike the U.S. dominance in world wheat markets, the EU is the primary wheat flour exporter (with nearly one-half of world exports), and the United States the second, but declining, flour exporter. Argentina is the third-leading world flour exporter, with nearly all sales to Brazil, Chile, and neighboring South American countries duty free under Mercosur.[123] U.S. flour exports have fallen sharply over the past decade, and are mostly limited to government assistance or food aid exports.[124] In 2001, U.S. exports of wheat and wheat flour to Chile amounted to $4 million and consisted entirely of wheat.[125] This represents a sharp drop from the $34 million in U.S. exports in 1999, when Chile purchased $33 million of U.S. wheat and $1 million of U.S. wheat flour.

Chile is a substantial producer, consumer, and importer of wheat. Chile has used the price band system to protect its domestic wheat growers and its wheat millers. Chile imported an average 0.5 million metric tons of wheat annually during the past six years;[126] imports accounted for about one-quarter of domestic wheat consumption during the period. Chile has been a strong wheat market as its per capita wheat consumption has been roughly double that in the United States.[127]

Chile grows a high-cost, lower grade of wheat for bread flour that typically must be supplemented with imported higher protein hard wheat to produce an acceptable flour. Chile does not grow Durum wheat used in pasta, but does import and mill Durum wheat. Chilean production of wheat—which covered 40 percent of its total crop acreage—averaged 1.5 million metric tons annually during the past six years.[128] Wheat yields have risen, but the acreage planted declined as farmers shifted cultivated land to fruit and vegetables, livestock, and forestry products.

U.S. exports of flour to Chile have historically been minimal. Chile imported about 50,000 metric tons of wheat flour (wheat equivalents) from the EU and Argentina in recent years.[129] Chile has a well developed and efficient milling and baking industry.

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[123] Based on 1999-2000 data. International Grains Council, *World Grain Statistics 1999/00,* July 2001, pp. 21-22. In 1998/99, Argentina supplied about one half, and the EU the other half, of Chilean wheat flour imports.

[124] "Flour exports smallest since 1942," *Milling and Baking News*, Mar. 4, 2002, p. 20.

[125] U.S. exports of wheat and wheat flour to all countries amounted to $3.5 billion in 2001, according to data of the U.S. Department of Commerce. Chile was thus a negligible market for these U.S. exports.

[126] Marketing years 1996/97 to 2001/02. USDA, FAS, *Chile Grain and Feed Annual 2002, 2001, 2000*, GAIN Reports Nos. CI2021, CI1023, CI0035, various dates; and *Chilean Wheat Update*, GAIN Report Nos. CI7006, Feb. 27, 1997, and CI9007, Feb. 24, 1999.

[127] 136 kilograms as compared to 66 kilos in the United States in 1998. Melissa Cordonier Alexander, "Chile-Country Focus," *World Grain,* Feb. 2000, p. 22; USDA, Economic Research Service, *Wheat Situation and Outlook Yearbook, 2002*, Mar. 26, 2002, table 23; USDA, FAS, *Chile Grain and Feed Annual 2002*, GAIN Report No. C12021, Aug, 22, 2002; and *Chilean Wheat Update*, GAIN Report Nos. CI7006 and CI9007, Feb. 27, 1997 and Feb. 24, 1999.

[128] USDA, FAS, *Chile Grain and Feed Annual*, 2002, 2001, and 2000, GAIN Report Nos. CI2021, CI1023, and CI0035, and *Chilean Wheat Update*, GAIN Report No. CI7006, Feb. 27, 1997; and M.C. Alexander, "Chile-Country Focus," *World Grain,* Feb. 2000, p. 21.

[129] In 1997/98 and 1998/99. International Grains Council, *World Grain Statistics 1999/00,* July 2001, p. 22b.

Chile's approximately 100 wheat mills have been characterized, as "efficient and well organized."[130]

Potential Impact on U.S. Imports

The U.S.-Chile FTA is not likely to have a measurable effect on U.S. imports of wheat or wheat flour because Chile does not export wheat or wheat flour, and is a relatively high-cost producer of wheat. Further, current U.S. duties on these products are relatively minor.

Potential Impact on U.S. Exports

The FTA is likely to allow the United States to recover in the short term some of the market share lost to Canadian wheat largely because of Canada's FTA over the past decade, and over the longer term of 12 years, make possible sizably higher sales in Chile after the duty is phased out. Without the 6-percent duty disadvantage,[131] U.S. wheat exporters may be able to supply as much as one-half of Chilean imports of non-Durum wheat (based on trade in 2001) or roughly 70,000 metric tons annually, valued at about $10 million. In 2000 and 2001, Canada was the largest supplier of wheat to Chile, accounting for 54 percent and 71 percent of the volume of wheat imports, respectively.[132] Average U.S. wheat exports to Chile could thus double in the short term from the 35,000 metric tons exported in 2001 to about 70,000 metric tons annually.

At the same time, it is unlikely that the U.S.-Chile FTA will result in meaningful increases in U.S. exports of wheat flour to Chile. Any Chilean flour imports would likely continue to come from Argentina or the EU rather than the United States. Furthermore, with a well-developed and efficient milling and baking industry, Chile will likely continue to import wheat for milling rather than import wheat flour.

The U.S.-Chile FTA is to eliminate Chile's price band system for U.S. wheat and wheat flour products and replace it with a 31.5 percent duty.[133] The 31.5-percent wheat duty will remain largely unchanged for the first nine years, and will not be reduced substantially until the last three years of staging, when it will be cut by 16.7 percent

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[130] M.C. Alexander, "Chile-Country Focus," *World Grain,* Feb. 2000, p. 21.

[131] Canada and Argentina have duty-free access to the Chilean market as a result of their respective FTAs with Chile. U.S. exports in 2003 face Chile's 6-percent uniform duty.

[132] USDA, FAS, *Chile: Grain and Feed Annual 2002*, GAIN Report No. CI2021, p. 5.

[133] The price bands are discussed in chapter I. The wheat price bands were determined by using a five year moving average of the U.S. No. 2 hard red winter wheat prices, f.o.b. U.S. Gulf. This price was adjusted for freight, and other shipping related costs to bring the price to a "Santiago" basis. The price band for wheat flour was calculated by multiplying the wheat price band level by 1.41. The U.S.-Chile FTA specifies that the rate of duty of Chilean imports from the United States be no worse than that received by any other country. Therefore, if Chile's implementation of the WTO ruling on the price band system results in a rate of duty of less than the rate specified in the U.S.-Chile FTA, the U.S. rate would be adjusted downward to the lower rate of duty.

annually.[134] During the first nine years, high-cost Chilean wheat production is largely protected from competition from U.S. wheat. However, after the 12 years, only a small portion of high-cost Chilean wheat production would likely be competitive with U.S., Canadian, and Argentine wheat exports.

If one-half of current Chilean production of 1.7 million metric tons would be competitive and remain in production by the end of the 12 years, then Chilean imports from all suppliers would need to increase by nearly 1.0 million metric tons.[135] If the United States supplied half of this increase, U.S. wheat exports to Chile could rise by another 0.5 million metric tons by the end of the period. U.S. wheat exports to Chile could thus increase in the short and long term by about 0.6 million metric tons, valued at about $75 million. These potential increased wheat exports are equivalent to a 2.3-percent increase in the current average level of U.S. wheat exports to all countries of 26 million metric tons annually.

Wood and Wood Products[136]

Overview

Demand for wood and wood products in the United States is driven principally by residential construction, which is dominated by wood frame construction techniques. In 2002, there were 1.7 million privately owned housing starts in the United States, the most since 1986, reflecting low mortgage rates and continued strong demand.[137] In 2001 (the last year for which data are available), the United States produced 408 million cubic meters of industrial roundwood (almost 27 percent of the world total), more than any other two countries combined.[138] Likewise, in 2001, the United States led the world in the manufacture of lumber and wood-based panels (e.g., plywood

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[134] Rate under HS subheading 1001.90, wheat except Durum. There were 140,000 metric tons of Chilean wheat imported under this HS subheading, and 105,000 metric tons of Durum wheat imported under HS subheading 1001.10. Government of Chile, *Bolentin Estadistico—Comercio Exterior Silvoagropecuario,* No. 27, Nov. 2002, p. 14.

[135] Assuming Chilean wheat consumption of 2.0 million metric tons annually.

[136] Most wood and wood products are classified in chapter 44 of the HTS. The term wood, refers to products such as sawlogs, pulpwood, and chips that have not undergone anything more than rudimentary processing and that typically serve as raw materials in the manufacture of wood or paper products. Wood products are products such as lumber and plywood that have undergone further processing but retain the natural characteristics of wood. In some cases, wood products serve particular end uses directly; in other cases, they serve as raw material for the manufacture of a wide variety of products. Paper products, which lose the natural characteristics of wood as a result of the pulping process, are typically not considered to be wood products.

[137] U.S. Census Bureau, "New Privately Owned Housing Units Started," found at *http://www.census.gov/const/startsan.pdf*, retrieved on Apr. 14, 2003.

[138] Industrial roundwood includes production of sawlogs, veneer logs, pulpwood, and other industrial wood. UN FAOSTAT data found at *http://apps.fao.org/subscriber/page/form?collection=Forestry.Primary&Domain*=Forestry&servlet=1&language=EN&hostname=apps.fao.org&version=default and retrieved on Apr. 15, 2003.

and oriented strand board) producing over 131 million cubic meters of these products, close to 24 percent of the world total.[139] Approximately 17,000 U.S. establishments manufacture wood products;[140] and in 2001, total shipments of wood products in the United States were valued at over $80 billion.[141]

In the mid-1970s, the Chilean Government offered economic incentives to landowners to plant trees. Consequently, over 2 million hectares[142] of plantation forests were established, most of which are plantations of Radiata Pine.[143] In 2001, largely as a result of the yield from this resource, Chile ranked eleventh in the world in production of industrial roundwood, producing 26 million cubic meters (nearly 2 percent of the world total and just over 6 percent of U.S. production).[144] Production of Radiata Pine timber is forecast to increase at an average compound annual growth rate of 4.6 percent over the next 15 years.[145] Chile has developed its industrial infrastructure to process wood and has a large number of sawmills and wood-based panel plants.[146] In 2001, Chile ranked seventeenth in the world in production of lumber and wood-based panels, manufacturing 7 million cubic meters, 1 percent of the world total.[147] It is reported that growth in production of value-added wood products (e.g., molding, doors, windows) has far exceeded the growth in production of primary wood products (e.g., lumber, plywood).[148]

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[139] Ibid.

[140] U.S. Census Bureau, 1997 Economic Censuses for the various wood products.

[141] This figure is the sum of U.S. Census Bureau estimates of total shipments for the following products: Sawmill Products (NAICS 321113); Wood Preservation Products (NAICS 321114); Hardwood Veneer and Plywood (NAICS 321211); Softwood Veneer and Plywood (NAICS 321212); Engineered Wood Members (except trusses) (NAICS 321213); Wood Trusses (NAICS 321214); Reconstituted Wood Products (NAICS 321219); Wood Windows and Doors (NAICS 321911); Cut Stock, Resawn Lumber, and Planed Lumber (NAICS 321912); Other Millwork (including flooring) (NAICS 321918); Wood Containers and Pallets (NAICS 321920); Manufactured Homes (NAICS 321991); Prefabricated Wood Buildings (NAICS 321992); and Miscellaneous Wood Products (NAICS 321999). U.S. Census Bureau, Annual Survey of Manufactures, "Value of Product Shipments: 2001," Jan. 2003.

[142] 1 hectare is approximately 2.5 acres.

[143] UNECE/FAO, *Forest Products Annual Market Review, 2001-2002*, Chap. 5, "Chile's forest products markets - a plantation success story," p. 54, found at *http://www.unece.org/trade/timber/docs/rev-02/chap-5.pdf*, retrieved Apr. 15, 2003.

[144] UN FAOSTAT data found at *http://apps.fao.org/subscriber/page/form?collection=Forestry.Primary&Domain=Forestry&servlet=1&language=EN&hostname=apps.fao.org&version=default*.

[145] UNECE/FAO, *Forest Products Annual Market Review, 2001-2002*, "Chile's forest products markets," p. 55.

[146] Ibid., p. 56.

[147] UN FAOSTAT data found at *http://apps.fao.org/subscriber/page/form?collection=Forestry.Primary&Domain=Forestry&servlet=1&language=EN&hostname=apps.fao.org&version=default*.

[148] UNECE/FAO, *Forest Products Annual Market Review, 2001-2002*, "Chile's forest products markets," p. 56.

Potential Impact on U.S. Imports[149]

Given the large size of the U.S. industry, the minimal share of U.S. wood products imports accounted for by Chile, and the negligible U.S. duties currently applicable to imports of wood products from Chile, the U.S.-Chile FTA is not likely to have a measurable impact on U.S. imports.

The United States has been and most likely will continue to be the principal destination for exports of Chile's wood products.[150] During 1998-2002, the value of U.S. imports of wood products from Chile increased at a compound annual growth rate of 19 percent and in 2002 amounted to $555 million. Softwood molding (HTS 4409.10.4000) and softwood lumber (HTS 4407.10.0052 and 4407.10.0053) were the top products imported (by value) and accounted for 54 percent of all U.S. imports of wood products from Chile. In 2002, Chile ranked third behind Canada and Brazil as a supplier of lumber (4407), and second behind Canada as a supplier of molding (4409). Nonetheless, in 2002, U.S. imports of wood products from Chile were less than 1 percent of U.S. shipments of wood products and were only 4 percent of all U.S. imports of wood products.

Because the United States already allowed duty-free entry for many wood products or afforded duty-free entry under GSP, the average duty on U.S. imports of wood products from Chile in 2002 was less than 1 percent ad valorem. Three items imported from Chile to which duties would ordinarily have applied in the absence of GSP are coniferous plywood (HTS 4412.19.4062), wood doors, frames and thresholds (HTS 4418.20.8030 and 4418.20.8060), and other builders' joinery and carpentry of wood (HTS 4418.904590). While it has been alleged that the uncertainty of GSP treatment may heretofore have restrained expansion by Chilean manufacturers,[151] it is not evident that Chilean production and imports of these items were constrained. During 1998-2002, the value of U.S. imports of these items increased at a compound annual growth rate of 73 percent, and imports of these items as a percent of total wood products imports from Chile increased from 4 percent in 1998 to 18 percent in 2002. The increase in imports of builders' joinery and carpentry of wood (4418) reflects Chile's increasing production of value-added wood products.

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[149] In 2002, wood accounted for 2 percent of total U.S. imports of wood and wood products and less than 1 percent of total imports of wood and wood products from Chile. Therefore, although the reported trade data include wood, the discussion will focus on trade in wood products.

[150] UNECE/FAO, *Forest Products Annual Market Review, 2001-2002*, "Chile's forest products markets," p. 57. It is reported by Infor, the Chilean forestry institute, that Chilean wood products exports to the United States are increasing faster than the total of all Chilean exports and that exports of Chilean wood products to the United States are expected to continue strong growth after ratification of the FTA. "Forestry exports to the U.S. to grow by 30% under FTA," found at *http://www.chileinfo.com/inicio/noticias_portada.php?pais=1&sec=61* and retrieved on Apr. 15, 2003.

[151] H.E. The Honorable André Bianchi, Ambassador, Embassy of Chile, comments during the panel discussion on the U.S.-Chile Free Trade Agreement: Implications and Prospects, George Washington University, Feb. 21, 2003, Washington, DC.

Potential Impact on U.S. Exports

Given the size of Chile's wood products market relative to its domestic output of wood products and the size of the U.S. market, the U.S.-Chile FTA is not expected to have a measurable impact on U.S. exports of wood products to Chile. The U.S. wood products industry supports the agreement not only because it establishes reciprocal duty-free treatment for U.S. producers in Chile but also because it removes the disadvantage of U.S. producers relative to producers from countries with which Chile already has established zero or reduced duties under FTAs with Canada, Mexico, and the Mercosur countries.[152] However, Chile's wood products market is small relative to that of the United States. In 2000, consumption of lumber and wood-based panels in Chile was only 2 percent of U.S. consumption.[153] In 2002, Chile ranked 37th as a market for U.S. wood products taking $8.4 million, less than 1 percent of all U.S. exports of wood products. Because Chile's domestic production of wood products exceeds its consumption,[154] it is unlikely that Chile's imports of these products will increase measurably.[155]

Financial Services

Overview

The financial services industry comprises companies involved in the provision of insurance, banking, securities, and asset management services.[156] The domestic industry is large and well established, with U.S. firms globally active and highly competitive in the world financial services market. In the United States, there were 4,764 insurance companies at the end of 2000, which wrote premiums valued at $865.3 billion, representing 35 percent of the global market.[157] By 2001 revenues, U.S. firms comprised 5 of the top 10 property/casualty firms globally. One U.S. firm, MetLife, ranked among the top 10 life insurers worldwide.[158] U.S. insurance carriers, agents, brokers, and services firms employed 2.2 million workers in 2001.[159]

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[152] Christine M. Sloop, Chile Solid Wood Products Annual 2002, USDA, FAS, Gain Report No. CI2018, Oct. 25, 2002, p. 8.

[153] UN/FAO, *Yearbook of Forest Products, 2002.*

[154] In 2001, Chile's production of lumber and wood-based panels exceeded its consumption of those products by 46 percent. Ibid.

[155] Chile did not import any lumber or wood-based panels in 2001, the last year for which data are available. UN FAOSTAT data found at *http://apps1.fao.org/subscriber/se...y.primary&language=&username=usitc* and retrieved onApr. 16, 2003.

[156] Excludes deposit-taking and lending services.

[157] In 2000, 67 percent of U.S. insurance companies were property/casualty companies and 33 percent were life/health companies. Insurance Information Institute, *The III Fact Book 2003*, New York: Insurance Information Institute, 2003, pp. 12, 15.

[158] Ibid., pp. 2-3.

[159] USDOC, Bureau of Economic Analysis (BEA), *Survey of Current Business,* Aug. 2002, p. 80.

In the U.S. banking industry, approximately 1.9 million workers were employed by 9,354 commercial banks and savings institutions in 2002, which reported total assets of $8.4 trillion, total loans of $5.1 trillion, and total domestic deposits of $4.9 trillion.[160] In December 2002, U.S. commercial banks reported total assets of $752.6 billion held in foreign offices, representing 11 percent of their total assets.[161] Citigroup and JPMorgan Chase are the only U.S.-based firms among the world's 10 largest commercial banks, ranked by assets.[162] Foreign-owned banks make up an important segment of the U.S. banking system, accounting for $1.3 trillion in U.S. domestic assets, representing nearly 16 percent of total U.S. domestic bank assets.[163] Two Chilean banks had offices in the United States at year-end 2002.[164]

In 2001, the three U.S. stock markets[165] listed 7,598 companies, with a combined market capitalization of $14.7 trillion.[166] The United States has the world's largest securities market. By revenue, 6 U.S. firms were among the world's 10 largest investment banks in 2002.[167] None of these leading firms had operations in Chile. At the end of 2001, the U.S. mutual fund industry comprised 8,307 mutual funds, with $7.0 trillion in assets under management.[168] Together, the U.S. securities and asset management industries employed 767,000 workers in 2001.[169]

In contrast to the size and scope of the U.S. financial services sector, the industry in Chile is comparatively small. Chile has 33 life insurance companies, 23 property/casualty firms, and 5 reinsurance firms. Ownership is split evenly between companies based in Chile, the United States, and Europe.[170] Insurance firms in Chile collected a total of $2.7 billion in life and nonlife premiums in 2001, accounting for just

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[160] Includes all institutions insured by the Federal Deposit Insurance Corporation (FDIC). FDIC, "QBP-Stats At A Glance," found at *http://www.fdic.gov/,* retrieved Mar. 17, 2003. Employment figures are for 2001 and include employees of U.S.-owned and foreign-owned depository institutions. [161] USDOC, BEA, *Survey of Current Business,* Aug. 2002, p. 80.

[162] Savings institutions are included in the statistics for total assets of the U.S. banking system, but savings institutions do not hold foreign assets. FDIC, "Statistics on Depository Institutions Report," Dec. 2002, found at *http://www3.fdic.gov/sdi/rpt_Financial.asp,* retrieved Mar. 17, 2003.

[163] "World's Top Banking Companies by Assets," *American Banker*, found at *http://www.americanbanker.com*, retrieved Oct. 31, 2002.

[164] U.S. Federal Reserve, "Structure Data for U.S. Offices of Foreign Banks," Dec. 31, 2002, found at *http://www.federalreserve.gov/releases/,* retrieved Mar. 13, 2003.

[165] Inversiones Baquio SA has a branch in Miami, with $225 million in assets at the end of 2002. Banco Santander Chile has a representative office in New York. (Representative offices do not hold assets.) Ibid.

[166] There are three major stock markets in the United States: the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), and the Nasdaq.

Securities Industry Association (SIA), *Securities Industry Fact Book 2002,* New York: SIA, 2002, p. 48.

[167] These are Morgan Stanley, Merrill Lynch, Goldman Sachs, Salomon Smith Barney (a Citigroup subsidiary), Lehman Brothers, and Bear Stearns. Hoover's Online, Financial Services Industry Snapshot, found at *http://www.hoovers.com/industry/snapshot/0,2204,18,00.html*, retrieved Jan. 28, 2003.

[168] Investment Company Institute (ICI), *2002 Mutual Fund Fact Book*, Washington, DC: ICI, 2002, pp. 25 and 34.

[169] USDOC, BEA, *Survey of Current Business,* Aug. 2002, p. 80.

[170] U.S. Dept. of State telegram, "Overview of Chilean Financial Sector for Treasury," message reference No. 03473, prepared by U.S. Embassy, Santiago, Dec. 13, 2002.

0.11 percent of the global total.[171] As of March 2003, the Chilean banking industry was comprised of 1 state-owned bank; 1 credit union; 9 private, domestic-owned banks; and 16 foreign banks. As of December 2001, banking assets of the Chilean industry were $66.0 billion.[172] Chile's three stock markets[173] together listed 249 local companies at the end of 2001, and reported a market capitalization of $56.7 billion. The Santiago Stock Exchange (SSE) is the primary market, recording 72 percent of the equity trading volume in 2001.[174] The SSE registered 1.7 million transactions in 2001, valued at $246.8 billion.[175] The Chilean mutual fund market was valued at $10 billion in 2002, with non-Chilean mutual fund firms holding 40 percent of the market.[176]

Potential Impact on U.S. Imports

The U.S.-Chile FTA does not substantially alter existing U.S. practices or U.S. barriers to financial services.[177] Therefore, it is unlikely to have a measurable impact on U.S. imports of insurance services from Chile. Imports of such services totaled less than $500,000 in 2001,[178] compared to total net U.S. insurance imports of $4.9 billion.[179] Although the U.S. insurance market has few existing barriers, few Chilean firms have chosen to enter the U.S. market. The U.S.-Chile FTA is also unlikely to have a significant impact on U.S. imports of banking and securities services. In 2001, U.S. imports of banking, securities, and asset management services from Chile totaled $5 million, which is small when compared with total U.S. imports of such services, valued at $4.0 billion.[180] As is the case for insurance, although the U.S. banking and securities markets have few existing market access barriers, few Chilean firms have chosen to enter the U.S. market. Although many foreign banks find it advantageous to maintain a presence in the United States, many smaller foreign-owned banks, such as those from Chile, focus on providing services such as trade financing to clients from their home countries, and do not compete directly with U.S.-based banks in the U.S. financial services market. Further investment by Chilean banks in the United States largely depends on increased demand from non-financial Chilean firms, and is not directly related to financial sector liberalization.

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[171] Swiss Re, Sigma insurance database.

[172] Chileinfo.com, "Financial Services," found at *http://www.chileinfo.com/inicio/sectores_productividad.php/,* retrieved Mar. 11, 2003.

[173] Chile's three stock markets are the Santiago Stock Exchange, the Electronic Stock Exchange, and the Valparaiso Stock Exchange.

[174] Chileinfo.com, "Financial Services."

[175] Santiago Stock Exchange, *Annual Report 2001,* found at *http://www.bolsadesantiago.com/,* retrieved Mar. 18, 2003.

[176] USDOC, US&FCS, and U.S. Dept. of State, "Mutual Funds Market: Chile," *US&FCS Market Research Reports,* Sept. 12, 2002, found at *http://www.stat-usa.gov/,* retrieved Mar. 12, 2003.

[177] U.S. industry representative, telephone interview with USITC staff, May 21, 2003.

[178] BEA does not report exact trade data in amounts less than $500,000.

[179] USDOC, BEA, *Survey of Current Business,* Oct. 2002, p. 111.

[180] Ibid., p. 107.

Potential Impact on U.S. Exports

The U.S.-Chile FTA reaffirms liberal trade in certain financial services and expands U.S. firms' rights to provide certain additional services to Chilean consumers. However, the agreement is unlikely to lead to measurable increases in overall U.S. exports of financial services because Chile represents a relatively small share of total U.S. financial service exports,[181] and the Chilean financial services market was substantially open to U.S. exports and investment prior to the agreement.[182] However, the U.S.-Chile FTA may result in increased U.S. exports to Chile in certain segments of the financial services industry.

In insurance, the FTA may increase U.S. exports to Chile in the marine, aviation, and transport (MAT) insurance segment, since cross-border supply of MAT insurance to Chile is permitted for the first time.[183] Insurance brokers may also witness increased sales, due to new rights gained through the agreement.[184] Another new commitment on the part of Chile is the right of insurers to establish as a branch, rather than a subsidiary. U.S. industry representatives indicate that this will permit them to reduce their operating costs, making them more competitive in the Chilean market. However, this commitment will be phased in over four years, so any impact on U.S. exports will be minimal in the short term.[185]

Although there were few existing restrictions on asset management firms prior to the U.S.-Chile FTA, the agreement represents Chile's first binding commitments on asset management services, providing legal certainty for U.S.-based providers of such services in Chile. The agreement is to permit U.S. providers to offer asset management services through Chile's voluntary retirement savings plans, and increases market access to Chile's mandatory national pension system.[186] For the first time, an affiliate of a U.S. asset management firm located in Chile may purchase asset management services on a cross-border basis from an affiliate of the same parent located outside of Chile.[187] The U.S. asset management industry has cited such cross-border trade as an important way to reduce costs, thus enhancing their competitiveness with local

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[181] In 2001, the United States recorded net exports of insurance services of $39 million to Chile, reflecting premiums of $61 million and claims payments of $22 million. This compares to premiums of $8.7 billion written by U.S. insurers globally. Also in 2001, Chile accounted for $69 million in U.S. cross-border exports of financial (banking and securities) services, compared to total U.S. exports of $15.2 billion. Chile ranked as the fifth largest U.S. export market for financial services in Latin America in 2001, after Mexico, Brazil, Argentina, and Venezuela. Ibid., pp. 106 and 111.

[182] Industry representatives, telephone interviews with USITC staff, Mar. 21-24, 2003.

[183] Statistics that reflect trade specifically in the MAT subsector are not available. USTR, "Free Trade with Chile," found at *http://www.ustr.gov/,* retrieved Mar. 19, 2003.

[184] Industry representative, telephone interview with USITC staff, Mar. 21, 2003.

[185] Ibid.

[186] "The U.S.-Chile Free Trade Agreement: Report of the Industry Sector Advisory Committee on Services for Trade Policy Matters," Feb. 28, 2003; and industry representatives, submissions to the Commission, Dec. 4, 2000.

[187] USTR, "Free Trade with Chile: Summary of the U.S.-Chile Free Trade Agreement,"found at *http://www.ustr.gov/regions/whemisphere/samerica/2002-12-11-chile_summary.pdf*, retrieved May 4, 2003.

firms.[188] However, industry representatives indicate that the new commitments are unlikely to lead to measurable increases in sales by U.S. asset management firms in Chile, due to the high level of market access available before the agreement.[189]

According to financial service industry representatives, the U.S.-Chile FTA also serves as a valuable benchmark for future free trade agreements. Industry representatives cited the transparency and investment provisions of the agreement as particularly important.[190]

Telecommunication Services

Overview

Telecommunication services include both basic and value-added services, both of which can be provided across national borders and through foreign-based affiliates.[191] In terms of revenue, the U.S. telecommunication services industry is the largest in the world. In 2000, U.S. telecommunication service revenues totaled $292.8 billion, representing nearly 33 percent of worldwide revenues.[192] In 2001, the U.S. telecommunication services industry contributed approximately 2 percent to U.S. GDP and employed 1.1 million people, accounting for approximately 1 percent of total U.S. employment.[193] Although the U.S. industry comprises over 700 companies that provide long-distance telephone services and approximately 1,300 companies that provide local services,[194] over 90 percent of U.S. telecommunication service revenues are generated by three long-distance companies and the four Regional Bell Operating Companies (RBOCs).[195] Similarly, in 2001, eight service providers accounted for 84 percent of total subscribers in the U.S. wireless telecommunication services segment.[196]

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[188] "The U.S.-Chile Free Trade Agreement: Report of the Industry Sector Advisory Committee on Services for Trade Policy Matters," Feb. 28, 2003; and industry representatives, submissions to the Commission, Dec. 4, 2000.

[189] Industry representatives, telephone interviews with USITC staff, Mar. 20-21, 2003.

[190] "The U.S.-Chile Free Trade Agreement: Report of the Industry Sector Advisory Committee on Services for Trade Policy Matters," Feb. 28, 2003.

[191] Basic services include the transmission of voice without change in form or content. Value-added services include services such as electronic mail, electronic data interchange, electronic funds transfer, enhanced facsimile, and on-line database access.

[192] International Telecommunications Union (ITU), *World Telecommunication Development Report, 2002*, Geneva: ITU, Mar. 2002, p. A-55.

[193] USDOC, Bureau of Economic Analysis (BEA), *Survey of Current Business*, Nov. 2002, p. 32; and USDOC, BEA, *Survey of Current Business*, Aug. 2002, p. 80.

[194] Standard and Poor's, *Telecommunications: Wireline*, Industry Survey, May 31, 2002.

[195] The three long-distance companies are AT&T Corp., Sprint Corp., and MCI. The four Regional Bell Operating Companies are Verizon Inc., BellSouth, SBS Communications, and Qwest Communications International.

[196] These include Verizon, Cingular, AT&T, Sprint PCS, Nextel, Voicestream, Alltel, and US Cellular.

The U.S. telecommunication services industry is currently recovering from the excesses of the late 1990s telecom boom, when many companies borrowed heavily to build broadband networks and develop new services, both domestically and abroad, but were left with massive excess capacity and unmanageable debt loads when actual network traffic flows fell far short of predictions. The inflated expectations of demand and profitability that prevailed at the end of the 1990s also encouraged scores of new companies to enter the U.S. market. Subsequent competition led to falling service prices and revenue shortfalls in many market segments. As a result, many companies in the U.S. telecommunication services industry filed for bankruptcy, including new entrants such as Global Crossing and incumbents such as Worldcom. Despite the current financial problems in the industry, U.S. telecommunication firms are highly competitive globally. The major U.S. firms, including AT&T, MCI, and Sprint, operate in most international markets, employ advanced network technology, and offer a wide range of telecommunication services.

In Chile, extensive liberalization and privatization efforts undertaken by the government over the past two decades have facilitated telecommunication infrastructure development and stimulated competition. As a result, Chile has the most developed telecommunication services sector in Latin America. Since 1995, mainline penetration has grown at an average annual rate of 11 percent, reaching 24 mainlines per hundred people by 2001.[197] Similarly, mobile penetration grew at an average annual rate of 73 percent over the same period, topping 34 mobile subscribers per 100 people in 2001.[198] Revenues for the telecommunication services industry, which totaled $2.6 billion in 2000, represented 3.6 percent of Chilean GDP.[199]

In Chile, the telecommunication services sector is highly competitive, with more than 35 companies providing telecommunication services in the local, long-distance, international, and mobile markets. Prior to liberalization, Telefónica CTC (CTC) was the monopoly provider of local services, while Entel was the sole provider of long-distance services in Chile. Currently, these incumbents control the largest share of their former markets, but intense competition has reduced their market share. For example, in the wireline long-distance and international services segments, Entel controls only 38 percent of the market, with CTC, ChileSat, Telefonica del Sur, BellSouth (United States), and Globus accounting for the remaining market share. In mobile services, Entel and CTC control 39 percent and 32 percent of the market respectively, with BellSouth and Smartcom dividing the remainder.[200] In the local services segment, CTC's control of the legacy network infrastructure has allowed it to maintain a market share of nearly 80 percent, down from 100 percent a decade ago. Growth opportunities exist in the provision of telecommunication services to Chile's extensive rural market. The markets of the major urban centers, however, are

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[197] ITU, *World Telecommunication Development Report, 2002*, Mar. 2002, p. A-10.
[198] Ibid., p. A-34.
[199] Ibid., p. A-54.
[200] U.S. firms operating in the Chilean telecommunications services markets include VTR GlobalCom, Bell South, AT&T Latin America, and MCI.

characterized by intense competition among existing players, resulting in price erosion and declining profitability in all market segments. Moreover, a lack of allocated spectrum will likely constrain short-term growth in the mobile services sector.

Potential Impact on U.S. Imports

The U.S.-Chile FTA encompasses comprehensive disciplines with respect to the provision of telecommunications services. However, the agreement will likely have no measurable impact on U.S. imports of telecommunication services, given the current openness of the U.S. market and the influence of other factors affecting trade in telecommunications services. Imports of telecommunications services largely depend on the accounting rate level. As such, accounting rate reductions are expected to be the major determinant of changes in the value of imports of telecommunication services from Chile. Cross-border telecommunication services import data primarily reflect U.S. carriers' payments to Chilean firms for the transmission of voice messages, measured in minutes. Efforts undertaken by the U.S. Federal Communications Commission to reform the accounting rate system are expected to significantly reduce the average bilateral accounting rate for telephone calls between the United States and Chile. Although declining accounting rates will likely lead to an increase in the volume of voice minutes traded between Chile and the United States, the value of imports measured in dollars will likely decline as a result of the large expected reduction in accounting rates.

Commitments made by the United States as part of the WTO Basic Telecommunications Agreement lifted most restrictions on the provision of telecommunication services in the United States.[201] Moreover, the main provisions of the U.S.-Chile FTA, which include commitments related to network access and interconnection, licensing and regulatory transparency, and competitive safeguards, are largely reflected in existing U.S. commitments under the General Agreement on Trade in Services (GATS). Despite such openness, Chilean telecommunication service firms have not entered the U.S. market. In the near term, economic conditions in the domestic U.S. market combined with the scarcity of capital for telecommunication projects will likely reduce the incentive for Chilean telecom firms to establish an affiliate in the United States. Over the long term, however, the incremental commitments made in the U.S.-Chile FTA may benefit prospective U.S.-based Chilean affiliates through increased transparency and greater regulatory certainty.

[201] The WTOs Basic Telecommunications Agreement became effective Feb. 5, 1998.

Potential Impact on U.S. Exports

The U.S.-Chile FTA will likely have no measurable impact on U.S. exports of telecommunication services. As in the case of telecommunication services imports, accounting rate reductions are expected to be the largest determinant of changes in exports of telecommunication services to Chile. Cross-border telecommunication services export data primarily reflect U.S. firms' receipts from Chile for the transmission of voice messages, measured in minutes. Although declining accounting rates will likely lead to an increase in the volume of telecommunication minutes traded between Chile and the United States, the value of exports measured in dollars will likely decline as a result of the large expected reduction in accounting rates.

Liberalization efforts beginning in the late 1980s combined with commitments made by the Government of Chile as part of the WTO Basic Telecommunications Agreement lifted most restrictions on the provision of telecommunication services in Chile. Moreover, the main provisions of the U.S.-Chile FTA, which include commitments related to network access and interconnection, licensing and regulatory transparency, and competitive safeguards, are largely reflected in existing Chilean commitments under the GATS. As with imports, the incremental commitments made in the U.S.-Chile FTA may benefit U.S. companies with an established commercial presence in Chile through enhanced transparency and increased regulatory stability. However, in the short term, poor economic conditions in the U.S. market, a lack of capital for telecommunication projects, and the small size of Chile's telecommunication services market will limit additional investment in the Chilean telecommunication service sector by U.S. firms.

CHAPTER 6
Impact on Investment

This chapter analyzes the economic effects of the investment provisions of the U.S.-Chile FTA on the United States. The investment provisions of the U.S.-Chile FTA go well beyond those of any other agreement to which both parties are signatories and therefore represent a major expansion of bilateral investment obligations. According to the United States Council for International Business (USCIB), investment agreements facilitate investment by helping to create stable business environments, which in turn promote economic growth.[1] The disciplines contained in the FTA largely encompass those long identified by the U.S. business community as being fundamental protections necessary to encourage investment.[2] However, because both parties already have high standards for the treatment of foreign investors, the agreement is not likely to result in any significant improvement in investor confidence and related investment flows. In addition, because Chile has a small economy relative to that of the United States, any changes in bilateral investment flows most likely would not have a significant effect on the U.S. economy. The following presents a description of the U.S.-Chile bilateral investment relationship, summarizes the major investment provisions of the FTA related to investment, and to the extent possible, considers the potential effects of implementation of the investment provisions on U.S. industries and the U.S. economy as a whole.

Chile's Current Investment Policies

Chile's investment policies are described as welcoming to foreign investors, who generally receive nondiscriminatory treatment and are not subject to performance requirements such as joint ventures.[3] The principal instrument for administering Chile's foreign investment policy is Decree Law 600 of 1974 (DL 600). This legislation encourages foreign investment by offering investors the option of entering into a binding investment contract directly with the Government of Chile that clearly specifies the rights of foreign investors and protects against arbitrary changes in government policies or legal interpretations.[4] Among the rights accorded foreign investors in the

[1] United States Council for International Business (USCIB), letter to Robert Zoellick on investment recommendations, Apr. 19, 2001, found at *http://www.uscib.org*, retrieved Mar. 24, 2003.

[2] Statement of Daniel M. Price in testimony before the Subcommittee on Trade of the House Committee on Ways and Means, May 8, 2001, found at *http://www.uscib.org*, retrieved Mar. 24, 2003.

[3] U.S. Department of Commerce (USDOC), U.S. & Foreign Commercial Service (US&FCS), and U.S. Department of State, "Chile Country Commercial Guide FY 2003 - Investment Climate," Aug. 28, 2002, found at *http://www.stat-usa.gov*, retrieved Mar. 5, 2003.

[4] Asia-Pacific Economic Cooperation (APEC), *APEC Investment Regime Guidebook* (4th ed.), found at *http://www.apecsec.org.sg*, retrieved May 7, 2003.

investment contracts are: (1) the right to receive nondiscriminatory treatment, (2) the right to participate in any form of investment, (3) the right to hold assets indefinitely, (4) the right to remit or reinvest earnings immediately (and to remit capital after one year), (5) the right to acquire foreign currency at the interbank rate of exchange, and (6) the right to opt for either national tax treatment (under which local firms are taxed at a rate of 35 percent on fully distributed earnings) or for a guaranteed tax rate (currently 42 percent).[5] Because the investment contracts provide favorable treatment to foreign investors, virtually all investment in Chile since 1974 has been made under DL 600. Alternatively, foreign investment may be made under mechanisms such as Chapter 14 of Chile's Foreign Exchange Regulations. Chapter 14 provides a different set of investment incentives and guarantees.[6]

Chile recently adopted some changes to its investment policies that further enhanced the investment climate. In May 2000, Chile removed a significant constraint on portfolio investment by eliminating the requirement that foreign capital entered under Chapter 14 may not be repatriated for one year.[7] In April 2001, Chile permanently eliminated a requirement that foreign investors deposit a percentage of foreign-sourced loan funds and portfolio investment with the Central Bank in a noninterest-bearing account for up to two years. Other recent reforms include the elimination of controls on flows of foreign capital into Chilean debt and equity markets and the elimination of the requirement for Central Bank approval of outflows associated with capital returns, dividends, and other investments.[8]

Foreign investment is subject to pro forma screening by Chile's Foreign Investment Committee (FIC) of the Ministry of Economy. Approval is required for investments exceeding $5 million or investments made in certain sectors, including the media and the provision of public services, and investments made by foreign governments or by foreign public entities. The FIC also is the sole institution empowered to accept foreign investments under DL 600.[9] In practice, the entire application and approval process for investments under DL 600 takes approximately 20 days and, with the exception of a few sensitive sectors, all investments are approved.[10] Sensitive sectors for which foreign investment may face some restrictions include broadcasting and publishing, financial services, fishing, maritime transport, and mining.[11]

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[5] USDOC, US&FCS, and U.S. Dept. of State, "Chile Country Commercial Guide FY 2003 - Investment Climate," Aug. 28, 2002.

[6] Ibid. See also Government of Chile, Ministry of Economy, Foreign Investment Committee (FIC), "FDI in Chile," found at *http://www.foreigninvestment.cl/*, retrieved May 1, 2003.

[7] Ibid.

[8] Ibid.

[9] The Ministries of Finance, Foreign Relations, and Planning as well as the president of the Central Bank also are represented on the FIC. Government of Chile, FIC, "FDI in Chile."

[10] LatinFocus, "Chile Reference Information," found at *http://www.latin-focus.com*, retrieved May 6, 2003.

[11] USDOC, US&FCS, and U.S. Dept. of State, "Chile Country Commercial Guide FY 2003 - Investment Climate," Aug. 28, 2002.

Nonconforming Measures of the U.S.-Chile FTA

This section provides additional background information on certain investment provisions of the U.S.-Chile FTA that is useful to the analysis of the impact of the agreement on the United States.[12] The investment chapter of the U.S.-Chile FTA contains provisions for the treatment of existing or future measures that are inconsistent with certain disciplines (specifically, those concerning nondiscrimination, performance requirements, and senior personnel). Existing measures maintained at the central or regional government level are exempted from these disciplines provided that they are described in an Annex I to the agreement. Reservations to ensure that a party maintains flexibility to impose measures in the future that may be inconsistent with these disciplines are described in Annex II. Nonconforming measures at the local government level are simply exempted without requiring any notation in an annex. The actual content of these reservations varies widely. Some reservations are horizontal in nature, meaning they address general policy provisions that affect all investments, whereas others apply to specific industry segments.

Chile's horizontal reservations concern measures restricting foreign ownership of land in coastal and borderland zones and foreign investment in state enterprises or government entities; as well as measures that accord differential treatment to other countries through existing international agreements and existing or future international agreements involving aviation, fisheries, or maritime matters. In addition, Chile reserved the right to adopt or maintain measures according rights or preferences to socially or economically disadvantaged minorities as well as indigenous peoples. Similarly, Chile listed a reservation to preserve an existing measure that requires a minimum of 85 percent of employees of a Chilean company be Chilean nationals. However, a limited exemption to this measure was negotiated whereby U.S. personnel who are needed to start up an enterprise in Chile will be considered "special technical personnel" who cannot be replaced by Chilean nationals during the period of 18 months after start-up. Finally, Chile scheduled a reservation that appears to bring its commitments under the FTA concerning the establishment of a commercial presence for service providers in line with those undertaken through the General Agreement on Trade in Services (GATS).

Horizontal reservations taken by the United States under Annex I address the programs of the Overseas Private Investment Corporation and the registration of public offerings of securities, as well as existing nonconforming measures at the state level. Horizontal reservations listed by the United States under Annex II include a reservation that appears to ensure that U.S. obligations under the FTA concerning the establishment of a service enterprise are equivalent to those undertaken in the GATS.

[12] A summary of the provisions of the U.S.-Chile FTA is provided in chapter 2.

Annex II of the United States also contains a horizontal reservation for measures that accord preferential treatment to countries under bilateral or multilateral international agreements, including international agreements involving aviation, fisheries, or maritime matters.

The specific sectors for which reservations are listed in Annexes I and II are presented in table 6-1 without attempting to characterize the actual substance of the reservation. In many cases, the reservation represents a measure that imposes a potential constraint on foreign investment that may or may not have any significant bearing on the activities of foreign investors. Consequently, the inclusion of a sector in the annex should not be interpreted to mean that the sector as a whole has been exempted from coverage under the investment disciplines.

Table 6-1
Industry sectors included in Annex I[1] or Annex II[2] reservations of the U.S.-Chile FTA

Chile		United States	
Annex I	**Annex II**	**Annex I**	**Annex II**
Communications	Communications: Satellite broadcasting	Communications: Radio	Communications
Energy	Fisheries	Atomic energy	Social services
Mining	Cultural industries	Mining	Minority affairs
Fisheries	Social services	Transportation services: Air transportation	Transportation services: Maritime
Printing, publishing, and related industries		Customs brokerage	
Transportation services: Air and Maritime			

[1] Annex I contains reservations to preserve existing measures that are inconsistent with the disciplines concerning nondiscrimination, performance requirements, and senior personnel.

[2] Annex II contains reservations to ensure that a party maintains flexibility to impose measures in the future that may be inconsistent with the disciplines concerning nondiscrimination, performance requirements, and senior personnel.

Source:

Potential Effects on the U.S. Economy

The U.S.-Chile FTA has the potential to affect investment in two dimensions. First, liberalization of market access conditions for trade in goods and services is likely to encourage increased bilateral trade, which in turn may be supported by additional foreign direct investment. Consequently, trade liberalization may result in increased foreign investment.

Second, liberalization of investment policies may encourage greater investment either through the removal of impediments or by bolstering the confidence of foreign

investors in the transparency and stability of the investment framework. Because neither the United States nor Chile will need to make any significant changes to their respective investment policies in order to comply with the obligations of the agreement,[13] the U.S.-Chile FTA is unlikely to have any effect on bilateral investment flows in the short term. In the longer term, the agreement may encourage greater investor confidence if it affords greater investment protections than any existing agreements to which both the United States and Chile are presently bound.

At present, the United States and Chile are signatories to two international agreements concerning investment: the WTO Agreement on Trade Related Investment Measures (TRIMs) and the WTO General Agreement on Trade in Services (GATS). The coverage of the TRIMs agreement is extremely limited. The TRIMs agreement itself does not actually contain any disciplines, but simply restates that measures inconsistent with Articles III and XI (national treatment and quantitative restrictions) of the General Agreement on Tariffs and Trade (GATT) are prohibited.[14] Moreover, these GATT disciplines apply only to measures that affect the import or export of goods, which means that, unlike in the U.S.-Chile FTA, measures affecting the ability to establish and operate locally are not covered, nor are measures affecting services or other forms of investment.[15] Consequently, in comparison with the U.S.-Chile FTA, the TRIMs agreement applies to only a subset of investment activities and disciplines only a subset of the policies that deny national treatment or impose performance requirements. Unlike the U.S.-Chile FTA, the TRIMs agreement does not address the areas of most-favored-nation treatment, minimum standard of treatment, senior management issues, financial transfers, and expropriation; nor does it address dispute settlement other than by reference to standard GATT procedures.

The GATS goes considerably further than the TRIMs agreement, but is similarly limited to a subset of issues relative to the U.S.-Chile FTA. The GATS contains a number of disciplines that are similar to the investment provisions of the U.S.-Chile FTA. These include disciplines on national treatment, most-favored-nation treatment, senior management issues, and some financial transfers. But because the GATS concerns only services, these disciplines apply only to investments necessary to establish and operate a service enterprise. Investment in manufacturing as well as portfolio investment are outside the scope. In addition, the GATS disciplines do not address minimum standard of treatment, performance requirements and incentives, and expropriation, which are addressed in the U.S.-Chile FTA. Another difference between the GATS and the U.S.-Chile FTA is that the GATS applies a "positive list" methodology for certain disciplines, including the important national treatment discipline. Under this

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[13] U.S. government representative, interview by USITC staff, Mar. 18, 2003.

[14] Paul Civello, "The TRIMs Agreement: A Failed Attempt at Investment Liberalization," *Minnesota Journal of Global Trade*, vol. 8:97, 1999, p. 98.

[15] For example, national treatment under the TRIMs or GATT refers to the treatment of goods that are imported or exported, so a measure that links the approval of an investment to establish a factory to the volume of products exported would be prohibited. However, measures that impose discriminatory requirements that are not linked to merchandise trade are unaffected, such as joint venture requirements, foreign equity limitations, or technology transfer requirements that are linked to receiving approval to establish a commercial presence.

approach, certain disciplines apply only to service sectors that are explicitly listed in an attached "Schedule of Specific Commitments." By contrast, the U.S.-Chile FTA applies a "negative list" approach, whereby all sectors are presumed to be covered by all disciplines unless they are explicitly excluded in the attached annexes. Although in theory both approaches could yield the same level of coverage, thus far the positive list approach has resulted in more limited coverage since many WTO members have opted to include only selected sectors in their schedules of commitments.

Finally, the GATS relies upon the WTO dispute settlement procedures, which, unlike those contained in the investment chapter of the U.S.-Chile FTA, do not permit investors to bring a claim on their own behalf or provide for compensation. Instead, disputes under the WTO must be brought by the government of the investor; and the final determinations address only whether specific policy measures should be changed. Consequently, dispute settlement under the GATS offers only a means of changing investment policies going forward, whereas the investor-state dispute settlement provisions of the U.S.-Chile FTA afford direct recourse to individual investors who have been adversely affected by present policies.

By affording greater investor protections than existing international agreements, the U.S.-Chile FTA may improve investor confidence and thereby foster increased bilateral investment flows. In addition, since many of the agreement provisions are similar to those contained in Chile's investment contracts, U.S. investors may no longer need to engage in the investment contract process in order to protect their investments. Although the investment contract process has not been specifically cited as a significant impediment to investment, the fact that all U.S. investors would enjoy many of the same rights as a result of the FTA may further enhance Chile's investment climate. The U.S.-Chile FTA may also benefit U.S. investors by providing another example of an international agreement with strong investment disciplines. Such a precedent may encourage the adoption of similar provisions in subsequent bilateral, regional, and multilateral trade and investment agreements, which in turn may improve conditions for U.S. investors.

CHAPTER 7
Impact on Intellectual Property Rights

This chapter analyzes the economic effects of the intellectual property rights (IPR) provisions of the U.S.-Chile FTA on the United States. Chile's current IPR policies are problematic for a number of U.S. industries dependent on IPR.[1] Some of the major U.S. concerns include delays in Chile's implementation of its IPR obligations under the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO); copyright, patent, trade secret, and trademark protection; and IPR enforcement. Nevertheless, if Chile were to implement the IPR provisions of the proposed U.S.-Chile FTA, the increased level of protection afforded to IPR holders would potentially result in increased revenues for U.S. industries dependent on copyrights, patents, trade secrets, and trademarks. However, due to the relatively small size of Chile's economy, any increases in revenues for the U.S. IPR industry would likely have negligible effects on the U.S. industry and economy. Further, there would be little, if any, effect on U.S. industries or the U.S. economy based on U.S. implementation of its FTA obligations. The following further describes the current status of IPR protection in Chile, summarizes key provisions of the FTA related to IPR, and describes the potential effects of implementation of IPR provisions in the FTA on U.S. industries and the U.S. economy as a whole.

Current Conditions of IPR Protection in Chile

According to U.S. industry and government officials, significant problems exist with regard to Chile's protection of intellectual property rights (IPR).[2] Chile is a member of the WTO and has thereby assumed obligations under the WTO Agreement on Trade-Related Aspects of International Property Rights (TRIPs). However, Chile has not yet brought its domestic laws into conformity with TRIPs, even though that agreement went into effect on January 1, 2000.[3] While such implementing legislation is pending in the Chilean congress, some U.S. industries dependent on copyrights have opposed passage of the bill in its present form, since they do not believe it adequately implements Chile's TRIPs requirements.[4] U.S. industry is also disappointed that Chile

[1] U.S. Department of Commerce (USDOC), U.S. & Foreign Commercial Service (US&FCS), and U.S. Department of State (U.S. Dept. of State), "Chile Country Commercial Guide FY 2003," US&FCS Market Research Reports, 2003, p. 4.

[2] Ibid.

[3] Ibid.; and Pharmaceutical Research and Manufacturers of America (PhRMA), "Chile," *PhRMA Special 301 Submission*, Mar. 31, 2003, pp. 151-52, found at *http://www.phrma.org*, retrieved Apr. 8, 2003.

[4] International Intellectual Property Alliance (IIPA), "Chile," *IIPA 2003 Special 301Report on Global Copyright Protection and Enforcement*, Feb. 14, 2003, pp. 365-74.

has not yet implemented obligations it committed to when it signed two 1996 WIPO treaties agreed upon by a number of countries to address Internet and other digital piracy.[5] U.S. industry concerns with Chile's IPR policies are broad and include copyright, patent, trade secret, and trademark protection, and IPR enforcement. These concerns have kept Chile on the Special 301 Watch List of countries with deficient IPR protection policies.[6]

Copyrights

According to U.S. industry representatives, Chile's copyright law does not meet the higher standards of copyright protection and enforcement required to address Internet and other digital piracy.[7] Such digital IPR standards could be achieved if Chile adopted a number of requirements included in the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms[8] Treaty (WPPT), established by the WIPO in 1996 (see text box).[9] Although Chile was among the first of 30 countries to ratify the WCT and WPPT, U.S. industry representatives state that Chile still needs to amend its current laws to implement the obligations of those treaties, as the United States has done.[10]

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[5] More detailed information on the two WIPO treaties will be provided in the following section on copyrights.

[6] Special 301 refers to a provision of U.S. trade law that requires the United States Trade Representative (USTR) to provide an annual report to identify countries that deny adequate and effective protection of intellectual property rights (IPR), or deny fair and equitable market access to U.S. persons or firms that rely on intellectual property protection. Countries with laws, policies, or practices that have the greatest adverse effects on relevant U.S. producers or products must be designated as priority foreign countries unless USTR finds that the countries are entering into good faith negotiations or are making significant progress in bilateral or multilateral negotiations to provide adequate and effective IPR protection. Priority foreign countries are subject to investigation and, if necessary, trade sanctions or other actions by USTR under Section 301 provisions. USTR has also created a "Priority Watch List" and "Watch List" under the Special 301 provisions. Placement of a trading partner on the Priority Watch List or Watch List indicates that particular problems exist in that country with respect to IPR protection. USTR, *2003 Trade Policy Agenda and 2002 Annual Report of the President of the United States on the Trade Agreements Program*, Mar. 2003, p. 236.

[7] The term piracy covers a range of unauthorized uses that result in commercial advantage to the infringer. This includes unauthorized reproduction of physical product, reproduction in intangible ways (Internet, etc.), physical distribution and sale, transmission (including Internet transmissions), public performances, public exhibitions, broadcasting, cablecasting, satellite transmissions, and the like. IIPA representative, e-mail communication to USITC staff, Jan. 28, 2003.

[8] Phonograms are sound recordings.

[9] These two treaties are often referred to as the "Internet Treaties" because they provide new international standards for the protection of copyrights and related rights in the digital economy. Both treaties went into effect in 2002, once the required minimum 30 governments had formally acceded to them. The United States ratified each treaty and implemented them domestically via the Digital Millennium Copyright Act of 1998.

[10] U.S. industry representatives, interviews by USITC staff, Washington, DC, June-Aug. 2002.

The WIPO Internet Treaties

The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) are often referred to as the "Internet Treaties" because they provide new international standards for the protection of copyrights and related rights in the digital age. The two treaties entered into force on March 6 and May 20, 2002, respectively, once the required minimum 30 countries had ratified each.

- The WCT introduces standards to protect rights holders of literary and artistic works in the digital environment, including art, books, software, movies, and music.
- The WPPT similarly safeguards the interests of producers of sound recordings, as well as of performers.
- Both treaties make clear that the traditional IPR right of reproduction (copying) continues to apply in the digital environment, including the storage of material in digital form in an electronic medium.
- The treaties establish the right holders' right to control the digital transmission of their works.
- The treaties ensure that right holders can use technology to protect their rights online. The treaties' "anti-circumvention" provisions address security and piracy risks, such as those posed by "hacking," by requiring member countries to provide adequate legal protection and remedies against the circumvention of technical measures, such as encryption.
- A new "rights management" provision in the treaties requires member countries to prohibit the deliberate alteration or deletion of electronic rights management information. This is the information that can be embedded into the digital code of a creative work and used to identify the work, its author, performer or owner, the terms and conditions for its use, and any other relevant attributes.
- Chile has not yet ratified either of these treaties, while the United States has. The United States implemented them domestically via the Digital Millennium Copyright Act of 1998.

Source: Chris Gibson, *WIPO Internet Copyright Treaties Coming Into Force*, 2002; and USTR official, Washington International Trade Association, National Foreign Trade Council, and Global Business Dialogue Program: "TRIPS Implementation: Intellectual Property and the WTO," Washington, DC, July 17, 2002.

U.S. industries that reportedly have been adversely affected by Internet and other digital piracy in Chile include the motion picture, sound recording (including musical compositions), business software application, entertainment software, book publishing, and other copyright industries. The International Intellectual Property Alliance (IIPA) estimates that total trade losses for U.S. firms due to copyright piracy in Chile for those industries amounted to $76.5 million in 2002 (table 7-1).[11] According to the IIPA, the level of copyright piracy increased significantly in 2002, due to the shift from cassette piracy to unauthorized reproduction of music and video recordings on recordable optical discs. U.S. copyright industry representatives assert that U.S.-Chile FTA IPR provisions must, at a minimum, be compatible with TRIPs, meet the obligations of the WCT and WPPT, provide record companies and performers with broad exclusive rights that include protection in the digital environment, and include modern and effective enforcement provisions that reflect the realities of Internet and other digital piracy.[12]

The unauthorized use of copyrighted material by schools, businesses, and government agencies is another area of concern for U.S. government and industry officials.[13] Such infringement in Chile costs the U.S. industry millions of dollars in lost sales, royalties, and license fees annually. Although official data on total U.S. IPR revenues from Chile are not available, total U.S. royalties and license fees from Chile amounted to $59 million in 2001.[14]

Patents and Trade Secrets

Another area of concern for U.S. industry is Chilean patent protection. Chile implemented a patent and industrial design law in 1999 that includes patent protection for pharmaceuticals, but certain difficulties remain.[15] For instance, its 15-year term of protection for patents reportedly does not meet the minimum required TRIPs patent term of 20 years from filing.[16] Moreover, there are no provisions for extending the patent term when the length of time for product testing and approval in Chile reduces the amount of time in which companies can actually take advantage of patent protection. Further, there is a lack of full "pipeline" protection for pharmaceutical products patented outside of Chile prior to the time they become patented in Chile.[17] In addition, U.S. firms state that they continue to encounter delays in patent approval due to backlogs.[18]

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[11] IIPA, "Chile," *IIPA 2003 Special 301Report*, pp. 365-74.

[12] IIPA, letter to the USTR, Nov. 5, 2002, found at *http://www.iipa.com*, retrieved Apr. 4, 2003.

[13] U.S. industry and government officials, in-person and telephone interviews by USITC staff, Washington, DC, June 2002-Mar. 2003.

[14] USDOC, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2002.

[15] U.S. industry representatives, telephone interviews by USITC staff, Washington, DC, Feb. 20, 2003.

[16] PhRMA, "Chile," *PhRMA Special 301 Submission*, pp. 151-152; and USDOC, US&FCS, and U.S. Dept. of State, "Chile Country Commercial Guide FY 2003," p. 4.

[17] USDOC, US&FCS, and U.S. Dept. of State, "Chile Country Commercial Guide FY 2003," p. 4; and USTR, "Chile," *2003 National Trade Estimate Report on Foreign Trade Barriers,* pp. 42-43.

[18] USTR, "Chile," *2003 National Trade Estimate Report*, pp. 42-43.

Table 7-1
Chile: Estimated U.S. trade losses due to piracy and levels of piracy, 1999-2002

Industry	1999	2000	2001	2002
	Value *(million dollars)*			
Motion pictures	2.5	2.0	2.0	2.0
Records and music	(1)	5.0	12.2	14.0
Business software applications	47.7	33.1	46.3	59.4
Entertainment software	(1)	41.0	(1)	(1)
Books	(1)	1.0	1.1	1.1
Total	50.2	82.1	61.6	76.5
	Quantity *(percent)*			
Motion pictures	25	40	40	40
Records and music	(1)	30	35	35
Business software applications	51	49	51	51
Entertainment software	(1)	(1)	80	78
Books	(1)	(1)	(1)	(1)
Total	(1)	(1)	(1)	(1)

[1] Not available.

Source: International Intellectual Property Alliance (IIPA), *IIPA 2003 Special 301 Report on Global Copyright Protection and Enforcement*, Feb. 14, 2003.

The U.S. pharmaceutical industry is also concerned that the Chilean Health Ministry issues product marketing approvals for drugs regardless of whether a patented version of the drug already exists.[19] As a result, U.S. drug manufacturers state that "almost half of patented products [have] an average of three infringing copies registered by Chilean health authorities."[20] To ameliorate this situation, U.S. firms indicate that they would like to see a greater linkage between Chile's health and patent authorities to coordinate their efforts to guarantee effective protection of IPR. Such cooperation could lead to a reduction in the number of illicit copies of patented goods. Further, U.S. firms believe Chilean law should be revised to require applicants to demonstrate that the product for which they seek marketing approval from health authorities is not the subject of a valid or pending application.[21] U.S. producers of the legitimate patented products are also concerned that proprietary data or trade secrets they provide to Chilean health officials for regulatory purposes are sometimes obtained by Chilean manufacturers.[22] Therefore, the U.S. firms would like to see greater protection of trade secrets in Chile. Finally, genetically modified plant and animal varieties are not considered patentable subject matter under current Chilean

[19] U.S. industry representatives, telephone interviews by USITC staff, Washington, DC, Mar. 2003.
[20] PhRMA, "Chile," *PhRMA Special 301 Submission*, pp. 151-52.
[21] Ibid.
[22] Pharmaceutical manufacturers state that all proprietary information submitted to a regulatory body should be protected from unfair commercial use. They indicate that because of their obligation to provide test data to governments to gain marketing approval, regulatory bodies should carefully protect such test data that reveals trade secrets. PhRMA, "Appendix A-1," *PhRMA Special 301 Submission*, pp. 151-52.

law. Thus, U.S. agricultural and biotechnology firms are disadvantaged in an area of U.S. comparative strength.

Trademarks

Although Chile's trademark law is regarded as generally consistent with international standards, it contains some deficiencies.[23] Reportedly, many parties in Chile without legitimate trademark claims have successfully registered well-known trademarks owned elsewhere by U.S. companies.[24] When challenged, Chilean courts have usually invalidated spurious trademark registrations, but the process reportedly is expensive and often requires several years.[25] To avoid high legal fees, U.S. and other foreign claimants often buy back the rights to use their own trademarks rather than file suit.[26] U.S. industry representatives indicate that Chile's trademark law should be improved to protect "well-known" marks. Inadequate trademark protection has encouraged imports into Chile of counterfeit products from other Latin American countries.[27]

Enforcement

U.S. industry representatives assert that the Chilean intellectual property enforcement system fails to meet international standards, including minimum TRIPs standards.[28] According to them, criminal raids, prosecutions, and judgments against IPR infringement remain seriously deficient as means of enforcement.[29] Chile's search remedies require that targeted infringers be provided with advance notice of raids, which makes the raids less effective. Chile also reportedly is slow in prosecuting IPR infringement cases. U.S. industry representatives report that Chilean police are seriously attempting to pursue IPR infringement cases. However, according to U.S. industry and government officials many of the cases are not effectively prosecuted due to court delays and corruption by local mayors who control licensing procedures in municipal markets where pirated optical music discs, videos, and other infringing products are often sold.[30] Further, even if IPR infringement cases make it to the courts, Chile reportedly does not provide for sufficient criminal penalties and civil damages to serve as effective deterrents to further intellectual property infringements.[31] For example, current Chilean copyright law does not provide for statutory damages in

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[23] USTR, "Chile," *2003 National Trade Estimate Report on Foreign Trade Barriers,* pp. 42-43.
[24] USDOC, US&FCS, and U.S. Dept. of State, "Chile Country Commercial Guide FY 2003," p. 4.
[25] Ibid.
[26] Ibid.
[27] U.S. industry representatives, in-person and telephone interviews by USITC staff, Washington, DC, May 2002-Feb. 2003.
[28] Ibid.
[29] IIPA, "Chile," *IIPA 2003 Special 301Report*, pp. 365-74.
[30] Ibid.; and U.S. industry and government officials, in-person and telephone interviews by USITC staff, Washington, DC, June 2002-Mar. 2003.
[31] Ibid.

cases where economic harm cannot be calculated.[32] Moreover, Chile reportedly has failed to establish and implement effective TRIPs-compliant border mechanisms to prevent importation of infringing goods.[33]

Major IPR Provisions of the U.S.-Chile FTA

The U.S.-Chile FTA reaffirms the rights and obligations set forth in TRIPs, to which both the United States and Chile are bound. However, the FTA also goes further than TRIPs by: (1) increasing protection of copyrights and trademarks to take into account advances in digital technology; (2) extending protections for copyrights, patents, and trade secrets; and (3) increasing IPR enforcement for piracy and counterfeiting. Nonetheless, some IPR industry representatives, who generally support the FTA, point out that there are some exceptions permitted in the FTA that weaken it.

Implementation of the IPR provisions of the U.S.-Chile FTA are to occur two years from entry into force of the FTA for trademarks, geographical indications, patents, and some aspects of copyright protection; four years from entry into force for enforcement, border measures, and related rights; and five years from entry into force for effective circumvention of technological protection methods.

Copyrights and Trademarks

According to U.S. industry representatives, an important accomplishment of the U.S.-Chile FTA is that it addresses Internet and other digital piracy by incorporating a number of requirements included in the WIPO, WCT, and WPPT.[34] In this regard, the FTA provides strict legal protections and remedies against the circumvention of technological measures used by copyright holders to prevent piracy and unauthorized distribution of copyrighted materials over the Internet.[35] Further, the FTA provides that

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[32] Statutory damages, which prescribe that a court may use a fixed sum or multiple to determine damages in lieu of determining actual economic damages are a feature of copyright legislation in a growing number of countries, including the United States. For instance, statutory damages incorporated into a nation's IPR laws obviate the very difficult requirement that the value of infringement damages, lost profits, and other economic damages be proved. IIPA, "Chile," *IIPA 2003 Special 301Report*, pp. 365-74.

[33] IIPA, "Chile," *IIPA 2003 Special 301Report*, pp. 365-74.

[34] National Foreign Trade Council, Inc., "Trade Pacts Will Deepen and Expand Trade with Key Partners in Asia and Latin America," *Chile-U.S. Free Trade Agreement Press Room News*, Jan. 23, 2003, found at *http://www.chileusafta.com*, retrieved Apr. 7, 2003, p. 1; and Motion Picture Association of America (MPAA), "Statement by Jack Valenti, Chairman and CEO, Motion Picture Association, on the Free Trade Agreement between the US and Chile," *MPAA Press Release*, Dec. 11, 2002, p. 1, found at *http://www.mpaa.org*, retrieved Apr. 7, 2003.

[35] USTR, "Free Trade with Chile," *Trade Facts*, Dec. 11, 2003, pp. 5 and 6, found at *http://www.ustr.gov,* retrieved Mar. 20, 2003.

only copyright owners have the right to make their works available online. Such copyright holders retain all rights to copies, including temporary copies, of their works on computers and networks, which protects copyrighted material (including music, videos, software, and text) from unauthorized sharing on the Internet.[36] The FTA also requires government involvement in resolving disputes pertaining to unauthorized use of trademarked names by non-right holders in Internet domain names.

The FTA extends copyright terms of protection beyond those required by TRIPs.[37] Under the FTA, where the term of protection of a work (including a photographic work), performance, or phonogram is to be calculated on the basis of a person's life, the term shall be not less than the life of the author and 70 years after the author's death. There are no corresponding terms of protection based on the life of the author explicitly provided for in TRIPs. However, by reference to the Berne Convention, the term of protection in TRIPs is life of the author and 50 years after his death.[38] In cases, where the term of protection of a work (including a photographic work), performance, or phonogram is to be calculated on a basis other than the life of a person, the term in the FTA is 70 years from the end of the calendar year of the first authorized publication of the work. The comparable period of protection in TRIPs is 50 years and does not apply to photographic works. Finally, failing such authorized publication within 50 years from the creation of a work (including a photographic work), performance, or phonogram, the FTA term of protection is to be not less than 70 years from the end of the calendar year of the creation of the work. Again, the comparable period of protection in TRIPs is 50 years and does not apply to photographic works.

Patents, Trade Secrets, and Satellite Program Piracy

The FTA also extends patent, trade secret, and satellite program piracy protections.[39] Patent terms can be extended beyond the 20-year term required by TRIPs to compensate for up-front administrative or regulatory delays in granting the original patent. The FTA also ensures that government product approval agencies deny marketing approval to patent-violating products. Test data and trade secrets submitted for the purpose of marketing approval are protected against disclosure for 5 years for pharmaceuticals and 10 years for agricultural chemicals.[40] Finally, protection for encrypted program-carrying satellite signals is extended to the signals themselves, as

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[36] National Foreign Trade Council, Inc., "Trade Pacts Will Deepen and Expand Trade with Key Partners," p. 1; and USTR, "Free Trade with Chile," pp. 5 and 6.

[37] MPAA, "Statement by Jack Valenti on the Free Trade Agreement between the US and Chile," Dec. 11, 2002, p. 1.

[38] Although the term of protection based on the life of a natural person is not specifically stated in the WTO TRIPs agreement, Article 9 of that agreement specifies that WTO members shall comply with Articles 1-21 of the Berne Convention for the Protection of Literary and Artistic Works (1971). Article 7 of the Berne Convention provides that "the term of protection granted by this Convention shall be the life of the author and fifty years after his death."

[39] U.S. Chamber of Commerce, "U.S., Chile Negotiators Reach Agreement, Business Coalition Formed to Speed Congressional Approval," *U.S.-Chile Free Trade Weekly*, Dec. 6, 2002, found at *http://www.uschamber.com*, retrieved Apr. 7, 2003.

[40] PhRMA, "Chile," *PhRMA Special 301 Submission*, pp. 151-52.

well as the programming, in order to deter piracy of satellite television programming.[41] To reinforce some of these provisions, Chile is also obligated to ratify or accede to several international IPR agreements, including the Patent Cooperation Treaty, the Trademark Law Treaty, and the Brussels Convention relating to the Distribution of Program-Carrying Satellite Signals.

Enforcement

Chile's IPR enforcement measures are strengthened by the FTA.[42] For instance, the FTA requires both statutory and actual damages for IPR violations.[43] This is expected to deter IPR infringement and allow monetary damages to be awarded even when actual economic harm cannot be calculated.[44] To increase deterrence against copyright and trademark infringement, the FTA applies criminal procedures and penalties in cases of wilful trademark counterfeiting or copyright piracy and by making end-user piracy a criminal offense. Enforcement stipulations of the FTA also require that provisions be made for the seizure, forfeiture, and destruction of counterfeit and pirated goods and the equipment used to produce them.[45] Further, IPR laws are to be enforced not only against infringement originating within each country, but also against goods in transit to deter violators from using their ports or free trade zones to traffic in pirated products.[46] Finally, police and border agents are provided with greater authority to pursue IPR criminal enforcement actions on their own initiative.

Potential Effects on the U.S. Economy

The intellectual property provisions of the U.S.-Chile FTA address many of the most significant concerns the U.S. industry has expressed regarding the IPR policies in Chile. If Chile were to fully implement and enforce the IPR provisions of the FTA, the increased level of protection afforded to IPR holders would potentially result in increased revenues for U.S. industries dependent on copyrights, patents, trademarks, and trade secrets. However, U.S. industry representatives have expressed concerns about Chile not meeting its obligations under past agreements, including TRIPs and the WIPO Internet Treaties. Further, due to the relatively small size of Chile's economy compared to that of the United States, any increases in revenues for the U.S. IPR industry would likely have a limited effect on the U.S. economy as a whole.

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[41] USTR, "Free Trade with Chile," pp. 5 and 6.

[42] National Foreign Trade Council, Inc., "Trade Pacts Will Deepen and Expand Trade with Key Partners," p. 1; and USTR, "Free Trade with Chile," pp. 5 and 6.

[43] USTR, "Free Trade with Chile," pp. 5 and 6.

[44] Ibid.

[45] U.S. industry representatives, telephone interviews by USITC staff, Washington, DC, Mar. 26, 2003; and USTR, "Free Trade with Chile," pp. 5 and 6.

[46] USTR, "Free Trade with Chile," pp. 5 and 6.

Among the U.S. copyright industries that would potentially benefit most due to the increased digital technology features of the FTA are the motion picture, sound recording (including musical compositions), business software applications, entertainment software, and book publishing industries. Industries that might benefit from the greater patent protections include the pharmaceutical industry and the agricultural chemicals industry. A broad range of U.S. industries should benefit from strengthened trademark, trade secret, and other IPR provisions of the FTA. By comparison, because the United States already meets the relatively high standards of IPR protection and enforcement included in the U.S.-Chile FTA, there would be little if any effect on U.S. industries or the U.S. economy based on U.S. implementation of its obligations under the FTA provisions.

A U.S. trade advisory committee representing IPR interests stated that the U.S.-Chile FTA IPR provisions are broadly consistent with the negotiating goals and objectives contained in the Trade Act of 2002 and those of U.S. intellectual property-based industries, creators, and innovators.[47] However, the advisory committee has reservations about certain exclusions, derogations, inexplicit language, and what it believes are excessive time frames for full implementation of the agreements.[48] For example, the committee points out that since Chile is already bound by TRIPs enforcement text, it should not need four years from entry into force of the FTA to make the minor modifications and clarifications in its law that would be required to meet FTA enforcement provisions. Despite such reservations, the committee strongly supports the U.S.-Chile FTA chapter on IPR, and believes that it establishes precedents to be included in future FTAs, which can raise the level of protection and enforcement globally.

[47] Industry Functional Advisory Group on Intellectual Property Rights for Trade Policy Matters (IFAC-3), *The U.S.-Chile Free Trade Agreement: The Intellectual Property Provisions*, Feb. 28, 2003, found at *http://www.ustr.gov*, retrieved Mar. 13, 2003.

[48] Ibid.

CHAPTER 8
Summary of Written Submissions

Air Courier Conference of America[1]

Air Courier Conference of America (ACCA) represents the express delivery service industry, which specializes in fast, reliable transportation services for documents, parcels, and freight. ACCA's members include local and regional couriers and messengers as well as large integrated express delivery companies, such as FedEx Corp.; United Parcel Service (UPS); DHL Worldwide Express; and TNT U.S.A., Inc.

ACCA supports the U.S.-Chile FTA and states that express delivery operators will benefit from increased transport volumes as a result of increased bilateral trade. ACCA also states that the trade facilitation provisions of the agreement stand to improve the operating environment for express delivery providers in Chile. ACCA reports that the FTA promises the simplification and harmonization of customs procedures and the efficient and fair processing of express delivery imports and exports.

ACCA states that the FTA's definition of express delivery services accurately reflects the nature of the industry. It also expresses satisfaction that the agreement's express delivery commitments apply to all suppliers of the service, require Chile to maintain current market access levels for express delivery service firms, and prevent Chile from imposing trade restrictions in the future. ACCA also supports Chile affirmation not to cross-subsidize express delivery services with funds generated by its monopoly-protected services. However, ACCA writes that future FTAs should include more rigorous cross-subsidization provisions that would subject all entities that provide express delivery services, including postal administrations, to the same rules and market economics.

American Council of Life Insurers and American Insurance Association[2]

The American Council of Life Insurers (ACLI) addresses issues including retirement security, privacy, and international trade. Its 400 member companies are leading providers of financial and retirement security products that cover individual and business markets. The American Insurance Association (AIA) is the leading

[1] Susan Presti, Executive Director, Air Courier Conference of America.

[2] Brad Smith, Managing Director, International Relations, American Council of Life Insurers David F. Snyder, Vice President and Assistant General Counsel, American Insurance Association.

property-casualty insurance trade organization and represents more than 424 insurers that write more than $103 billion in premiums annually.

The ACLI and AIA state that they support the U.S.-Chile FTA. The relatively liberal regulatory environment in the Chilean insurance market has resulted in liberal commitments that could establish precedence and momentum for other bilateral, regional, and multilateral agreements. The FTA incorporates the types of commitments sought by the ACLI and AIA on regulatory best practices that help develop markets by encouraging innovation and competition.

The ACLI and AIA identify as the major accomplishments of the agreement full market access and national treatment commitments; the ability to provide some insurance services on a cross-border basis without establishing a commercial presence; the inclusion of pensions commitments; the right to offer compulsory lines of insurance; full national treatment with regard to financial requirements; legislative and regulatory transparency obligations; and speed to market obligations. The ACLI and AIA state that these provisions enhance stability and ensure effective market access for U.S. firms. Such provisions are critical to member firms' global competitiveness and aid U.S. consumers, stakeholders, and the U.S. economy. In addition to benefitting member firms, the ACLI and AIA state that a regulatory system that promotes solvency and enhances competition supports the growth of the local insurance marketplace and benefits local consumers with the widespread availability of insurance.

American Dehydrated Onion and Garlic Association[3]

The American Dehydrated Onion and Garlic Association (ADOGA), an association composed of two firms accounting for the majority of domestic dehydrated onion and garlic production, opposes the U.S.-Chile FTA. ADOGA states that the production of dehydrated onions and garlic, although separate products, has developed interdependently. ADOGA further states that a dehydrator's ability to run production lines concurrently for both products enhances overall production efficiency and any market competition from lower-priced imports of either product could negatively affect the entire industry. ADOGA states that Chile poses a serious threat to the U.S. dried onion and garlic industry because of its climate, which is conducive for raising onions and garlic, its existing capacity to dehydrate onions and garlic, its vibrant agricultural sector, and its proximity to the United States. The United States has received a steady flow of fresh garlic and onions for a number of years from Chile, according to ADOGA, and Chile has exported dehydrated vegetables in recent years. ADOGA further states that its members will have little opportunity to sell U.S.-produced dehydrated onions and garlic in Chile.

[3] Irene Ringwood, Ball Janik LLP, counsel to the American Dehydrated Onion and Garlic Association.

American Federation of Labor and Congress of Industrial Organizations[4]

The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) is a voluntary federation of 65 national and international labor unions representing more than 13 million workers nationwide. The AFL-CIO reports that there is a trend of increasing U.S. trade deficits with Chile, that the U.S.-Chile FTA might exacerbate this trend. AFL-CIO expresses several concerns regarding the agreement.

With respect to rules of origin, AFL-CIO states that the agreement fails to promote production and employment in the United States or Chile; thus, the low rules of origin requirements could allow companies to invest in production or purchase inputs from other countries besides the United States and Chile and still benefit from the FTA. The AFL-CIO also expresses concern with the agreement's safeguard provisions because they offer no more protection than the limited safeguard mechanism in NAFTA, and fail to provide the necessary import surge protections for American workers.

The AFL-CIO states that the agreement's rules on government procurement bar the consideration of non-commercial criteria in purchasing decisions covering a broad range of public contracts for goods and services, and that these rules could be used to challenge a variety of important procurement provisions including incentives for recycling and resource conservation, living wage laws, anti-sweatshop laws, and project-labor agreements.

The AFL-CIO also expresses concern that the agreement will subject many public services provided on a commercial basis or in competition with private providers (which could include many important services in the United States, including water, health care, and education) to the rules on trade in services. Finally, the AFL-CIO states that the agreement does nothing constructive to address the important issues of external indebtedness, currency manipulation, and financial speculation.

American Forest & Paper Association[5]

The American Forest & Paper Association (AF&PA) is the national trade association of the forest, pulp, paper, paperboard, and wood products industry and represents more than 200 companies and related associations. AF&PA supports the U.S.-Chile FTA. AF&PA reports that the agreement establishes immediate zero tariffs on all paper and wood products, the industry's priority objective for the negotiations, thus providing reciprocity in a sector where U.S. tariffs on imports are already at or near zero.

[4] Gregory Woodhead, Public Policy Department, American Federation of Labor and Congress of Industrial Organizations.

[5] Jacob Handelsman, Senior Director, International Trade, and Elizabeth Ward, Executive Director, Wood Products International, American Forest & Paper Association.

AF&PA asserts that this provision eliminates the disadvantage faced by U.S. exporters competing against firms from countries such as Canada and the Mercosur countries (Argentina, Brazil, Paraguay, and Uruguay) that already have FTAs with Chile in force and thus have duty-free access to Chile's paper and wood products markets.

AF&PA reports that the impact of the agreement most likely will be most significant in Chile's market for paper and paperboard, where U.S. exporters have lost market share in recent years. AF&PA states, however, that it believes the Chilean Government is subsidizing its wood products industry, thereby distorting wood products markets by contributing to the construction of uneconomic or unsustainable capacity. If allowed to continue, AF&PA stated that this will affect the U.S. industry's competitive position in other foreign markets.

Apricot Producers of California[6]

The Apricot Producers of California (APC) is an association that represents nearly all apricot producers in California. The APC serves as a sales bargaining agent for apricot growers and promotes apricots and apricot products. The APC opposes the elimination of duties on U.S. imports of apricot products from Chile. The APC states that the U.S. industry currently is experiencing financial difficulties because of global oversupply, depressed prices, and static demand. The APC states that Chile is export oriented, is a competitive producer even in the face of current duties, and will become more competitive after tariffs are eliminated. The APC states that Chile has indicated it will increase exports to the U.S. market upon elimination of duties. The APC asserts that the agricultural safeguard mechanism in the proposed agreement that applies to certain apricot products will be ineffective.

Association of Food Industries[7]

The Association of Food Industries (AFI) represents about 200 importers of food products. The AFI develops programs that facilitate the business of its member companies, encourages free and fair trade, and fosters compliance with United States laws and regulations for the food industry. The AFI supports the elimination of duties on food products under the U.S.-Chile FTA. The AFI states that imported food products account for an increasing share of total U.S. food supplies, increase availability and variety to U.S. consumers, and stabilize annual food supplies and prices. The AFI also states that increasing market access to trading partners enhances their ability to import

[6] William C. Ferriera, President, Apricot Producers of California.
[7] Jeffrey S. Levin, Harris Ellsworth & Levin, counsel to the Association of Food Industries, Inc.

U.S. products, and that the FTA will have a significant beneficial impact on both the U.S. and Chilean economies.

California Cling Peach Board[8]

The California Cling Peach Board (CCPB) is a quasi-governmental association that represents 700 cling peach growers and 4 cling peach processors in California. The CCPB is involved with promotion, advertising, consumer education, production and marketing research, establishment of grades and standards, and the compilation of industry statistics regarding cling peach products. The CCPB opposes the elimination of duties on U.S. imports of cling peach products from Chile. The CCPB states that the U.S. industry currently is experiencing financial difficulties because of global oversupply and subsidized EU production and exports. The CCPB asserts that Chile is a competitive producer even in the face of current duties and will become more competitive after tariffs are eliminated. The CCPB states that Chile has indicated it will increase exports to the U.S. market upon elimination of duties. The CCPB asserts that the agricultural safeguard mechanism in the proposed agreement that applies to certain cling peach products will be ineffective. The CCPB notes that there will be no realistic reciprocal benefit to the United States, as Chile is a small market that is fully supplied by its competitive domestic industry.

Chilean-American Chamber of Commerce[9]

The Chilean-American Chamber of Commerce (AmCham Chile) is a private organization comprising more than 500 member companies and representing 85 percent of all U.S. investments in Chile in promoting trade and investment between the United States and Chile. AmCham Chile states that the U.S.-Chile FTA will benefit U.S. businesses, consumers, and workers to benefit from trade.

AmCham Chile states that trade between the United States and Chile has declined in the past years, primarily due to the Chilean government's successful policy of unilateral trade liberalization, which has increased competition from countries such as Canada, Mexico, and the Mercosur countries. According to AmCham Chile, had the United States maintained its 1995 market share it would have received an additional $1.4 billion in earnings from exports to Chile in 2002.

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[8] Sarb Johl, Chairman, California Cling Peach Board; and Jim Melban, General Manager, California Cling Peach Board.

[9] Richard Diego, President, Chilean-American Chamber of Commerce, "U.S.-Chile Free Trade Agreement Will Help U.S. Companies Recover Their Competitive Edge."

Coalition of Service Industries[10]

The Coalition of Service Industries (CSI) represents U.S. service firms and trade associations seeking to achieve expanded market access. CSI notes the importance of U.S. exports in services relative to total U.S. exports and in the current account as services trade surpluses partially offset U.S. merchandise trade deficits. CSI describes the preeminence of U.S. service industries in global services exports and labor productivity, and the importance of enabling U.S. service firms to leverage their comparative advantage in service markets opened through bilateral agreements such as that with Chile.

CSI supports the U.S.-Chile FTA, and states that the FTA would afford substantial, meaningful new commercial opportunities benefitting the United States and the Chilean services sector, and would encourage other Latin American economies to consider Chile's commercial strategy based on unilateral reform and engagement in the WTO and the FTAA. CSI describes the FTA as containing useful commitments to provide for freedom of movement of business personnel by allowing U.S. firms to quickly move professionals into Chile on a temporary basis to serve clients; for rights to establish service operations in Chile in the form and extent of ownership best suited for business objectives; and for high standards of transparency in administrative, licensing, and adjudicatory proceedings. CSI also supports the agreement's provisions concerning specific services, including electronic commerce; telecommunications; finance, with particular opportunities in asset management; insurance; advertising; education; express delivery; and health care.

Comstock and Theakson, Inc.[11]

Comstock and Theakson, Inc., a firm specializing in drawback, opposes the eventual elimination of duty drawback in the U.S.-Chile FTA. The firm cites the U.S. Customs Service in explaining that drawback permits American manufacturers to compete in foreign markets without the handicap of including in their costs, and consequently in their sales price, the duty paid on imported merchandise. The firm points to analysis stating that for companies that take advantage of duty drawback provisions, drawback accounts for more than one-third of their profit margins.

Comstock and Theakson indicates that approximately 1,000 jobs are related to the export of goods to Chile that are benefitted by drawback. These jobs, which are generally upper-wage, high quality jobs, would be adversely affected by the eventual elimination of duty drawback. Further, U.S. exporters would be less profitable, and thereby less competitive, compared to their counterparts in countries that allow full

[10] Linda Schmid, Coalition of Service Industries.
[11] William Hagedorn, Vice President-Drawback Operations, Comstock and Theakson, Inc.

drawback. For these reasons—reduced profitability and possible employment losses—Comstock and Theakson opposes restrictions and the elimination of drawback in the FTA.

Distilled Spirits Council of the United States[12]

The Distilled Spirits Council of the United States (DISCUS) is a national trade association representing U.S. producers, marketers, and exporters of distilled spirits products. DISCUS states that the elimination of Chilean tariffs under the agreement will ensure that U.S. spirits are accorded the same duty free tariff treatment as Chilean spirits currently entering the United States. Moreover, DISCUS states that the elimination of Chilean tariffs will ensure that U.S. spirits are placed on a level playing field with spirits from Canada, Mexico, and the EU, that currently benefit from preferential tariff treatment under their respective FTAs with Chile. Finally, DISCUS states that Chile has agreed to provide explicit protection for Bourbon and Tennessee Whiskey as distinctive products of the United States, which will ensure the integrity of these important U.S. spirits products in the Chilean market.

Electronic Industries Alliance[13]

The Electronic Industries Alliance (EIA) is a partnership of electronic and high-tech trade associations representing 2,500 companies that account for over 80 percent of the $430 billion information technology (IT) and electronics industry. EIA reports that its members will benefit from provisions of the U.S.-Chile FTA that will eliminate Chilean duties on IT equipment, improve intellectual property rights (IPR) protection for copyrighted works, and provide open markets for telecommunications networks.

EIA writes that in the agreement, Chile is to commit to eliminating tariffs immediately on 85 percent of imports in key sectors of importance to EIA members, including computers and other IT equipment. According to EIA, although Chile has not signed the 1996 Information Technology Agreement (ITA), the U.S.-Chile FTA would represent the first time that a major South American country has embraced the duty reduction commitments reflected in the ITA. EIA states that broadening the pool of countries that are prepared to eliminate tariffs on IT products could benefit U.S. electronic and IT producers as well as pave the way for similar commitments by other Latin American countries.

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[12] Deborah A. Lamb, Senior Vice President, International Issues and Trade, Distilled Spirits Council of the United States.

[13] Brian Kelly, Electronics Industries Alliance.

EIA also supports the agreement's strong IPR protection, which stands to facilitate the growth of digital technologies and products, as well as the agreement's provisions for open markets and non-discriminatory access to telecommunications networks, which likely will contribute to increased business for U.S. IT services and equipment suppliers.

EIA states that the agreement's provisions with respect to rules of origin and customs drawback could be improved upon and the FTA's language is complex and imposes unnecessary administrative burdens on companies that raise the cost of doing business internationally. EIA states that it would prefer a single tariff shift-only approach in which an item is deemed a product eligible for FTA benefits if it is transformed from one tariff category to another by manufacturing or processing in an FTA country.

With regard to duty drawback, EIA states that the U.S. duty drawback program is one of the last remaining export promotion programs to help U.S. companies remain globally competitive with trading partners that have significantly lower costs of production. In the U.S.-Chile FTA, drawback is scheduled to be phased out over 12 years. EIA states that eliminating the drawback will place U.S. producers at a competitive disadvantage vis-à-vis EU trading partners who have more favorable drawback language in the EU-Chile FTA.

Entertainment Industry Coalition for Free Trade[14]

The Entertainment Industry Coalition for Free Trade (EIC) represents the interests of multi-channel programmers, cinema owners, producers, distributors, guilds, unions, trade associations, and individual companies that produce, distribute, and exhibit many forms of creative expression, including theatrical motion pictures, television programming, home video entertainment, recorded music, and video games.

EIC supports the U.S.-Chile FTA. According to EIC, the FTA represents significant progress in requiring Chile to implement the World Intellectual Property Organization (WIPO) Copyright Treaty and the WIPO Performances and Phonograms Treaty, both of which were adopted in 1996 to address Internet and other types of digital piracy. The agreement would require Chile to extend the terms of protection under copyright for authors and audiovisual works and sound recordings, as well as provide enhanced enforcement obligations that build significantly on those of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). EIC also states that the agreement would open Chile's services markets; reduce tariffs on home videos, DVDs, CDs, and other forms of optical media. Finally, EIC supports the FTA's customs valuation provisions that require that valuation be based on the value of the carrier medium for any content-based products, rather than projections of future royalties or other speculative calculations.

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[14] Bonnie J. K. Richardson, Vice President, Trade and Federal Affairs, Motion Picture Association, on behalf of the Entertainment Industry Coalition for Free Trade.

High-Tech Trade Coalition[15]

The High-Tech Trade Coalition is a group of high technology companies and associations that are committed to free trade and improved market access for U.S. technology products and services. In 2002, the U.S. high-tech industry enjoyed a large trade surplus with Chile; exports to Chile were $722 million and imports were $6 million. U.S. high-tech manufacturing investment in Chile is modest, reaching a total of $34 million in 2001.

The High-Tech Trade Coalition states that the U.S.-Chile FTA likely will grow the U.S. high-tech industry's stake in the Chilean market through:

- Elimination of tariffs on high-tech products and on the electronic transmission of digital products;
- Preferential application of rules of origin;
- Streamlined customs administration and customs valuation disciplines based on the value of the media rather than the imported value of the stored content;
- Reduction and elimination of technical barriers to trade;
- Enhanced investment protections and reduced investment requirements;
- Liberalization of the services markets, particularly computer and related services and value-added telecommunications;
- Increased access to and use of the public telecommunications network for the provision of services, as well as disciplines for cost-based, flat-rate access to leased lines;
- Non-discriminatory treatment of digital products;
- Stronger protections of intellectual property for the digital age and IPR enforcement, and;
- Increased transparency for interested stakeholders concerning laws, regulations, procedures, and administrative rulings.

The High-Tech Coalition supports the agreement and believes that the market-opening provisions in the FTA provide significant benefits to the U.S. high-tech industry, set important precedents for strong disciplines in future trade negotiations, and reinforce a leadership role for the United States in international trade.

[15] Jennifer Guhl, Director, International Trade Policy, American Electronics Association.

International Intellectual Property Alliance[16]

The International Intellectual Property Alliance (IIPA) is a coalition of six trade associations representing almost 1,100 U.S. companies that produce and distribute materials protected by copyright laws throughout the world.[17] IIPA endorses the U.S.-Chile FTA despite some perceived shortcomings in the agreement. According to IIPA, the FTA will contain the highest level of protection in Latin America. IIPA states that the FTA will require Chile to fully implement the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty, both of which were adopted in 1996 to address Internet and other types of digital piracy. IIPA reports that the agreement also makes a number of significant advances and clarifications with regard to strengthening intellectual property right enforcement mechanisms and obligations increasingly critical to the copyright industries.

IIPA states that despite deficiencies in the agreements—the long transition periods delaying Chile's implementation of its FTA obligations in the copyright and enforcement area and certain deficiencies with respect to national treatment, compulsory licenses, and the protection of temporary copies of copyrighted materials on the Internet—the agreement taken as a whole represents an advance in the level of protection in Chile.

Leather Industries of America[18]

Leather Industries of America, Inc. (LIA) is a national trade association representing U.S. leather tanners and distributors, and their suppliers. LIA opposes the U.S.-Chile FTA's rules of origin provisions. LIA reports that there are three basic stages in the transformation of raw hides into finished leather: 1) initial tanning of raw hides and skins into wet blue leather, 2) the processing and drying to produce crust leather, and 3) the finishing operations that enhance the properties of the final product. LIA reports that historically when raw hides (classified under HTS headings 4101, 4102, and 4103) are initially tanned and then potentially dried into crust leather (HTS headings 4104, 4105, and 4106), the country in which the initial tanning was performed has been considered the product's country of origin.

Under the FTA, the country that performs crusting and/or finishing operations would be considered the leather's country of origin. The agreement specifies that changes to tariff classifications for all leather (except bovine/equine leather) (HTS headings 4105

[16] Eric H. Smith, President, International Intellectual Property Alliance.

[17] IIPA member associations include the Association of American Publishers, the American Film Marketing Association, the Business Software Alliance, the Interactive Digital Software Association, the Motion Picture Association of America, and the Recording Industry Association of America.

[18] Lauren R. Howard, Collier Shannon Scott, counsel to Leather Industries of America, Inc.

and 4106) from wet blue leather to crust leather confers origin. The agreement also specifies that changes to HTS headings 4107, 4108, and 4111 (the HTS classifications for finished leather) from any other heading confers origin. LIA opposes allowing crusting and finishing operations to confer origin. LIA also states that the proposed treatment contradicts numerous Customs Service rulings as well as the rules of origin for leather in NAFTA, which codified historical substantial transformation rules into a tariff shift approach. LIA urges that FTA be modified with respect to country of origin provisions, and that these provisions not be incorporated into future agreements.

Loh Enterprises[19]

Loh Enterprises, an international investment company that provides representation, advisory, and management services to companies with cross-border activities, specializes in assisting Chilean and other Latin American companies doing business in the United States as well as assisting U.S. entities involved in South America. Loh Enterprises supports the reduced restrictions to trade under the FTA, and states that the agreement represents an important step toward trade liberalization throughout the hemisphere and that it will contribute to improved living conditions for those in the Americas.

National Association of Manufacturers[20]

The National Association of Manufacturers (NAM), is the leading trade association in the United States representing the manufacturing community. NAM has 14,000 members (including 10,000 small and mid-sized companies) and 350 member associations in all industrial sectors throughout the United States. NAM supports the U.S.-Chile FTA because U.S. exports to Chile reportedly are being displaced as Chilean consumers increasingly purchase from countries that have FTAs with Chile in force. NAM estimates that the U.S.-Chile FTA could reverse this trend. NAM states that if the FTA is not adopted, the loss of U.S. market share will be aggravated further by the EU-Chile FTA that went into effect in February 2003. That agreement provides for significant tariff reductions in the near term for EU exporters to Chile. NAM states that the trade effects of FTAs are significant and, as an example, estimates that with the elimination of duties under the proposed Free trade area of the Americas (FTAA), U.S. exports to South America could triple, rising to $200 billion within a decade.

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[19] Perry Loh, President, Loh Enterprises.

[20] Frank Vargo, Vice President, International Economic Affairs, National Association of Manufacturers.

A NAM analysis of current U.S. and foreign trade with Chile indicates that the U.S. share of Chilean imports has declined from 24 percent in 1997 to almost 17 percent in 2002. Had U.S. market share remained at 24 percent in 2002, NAM estimates that Chilean imports from the United States would have been $1 billion greater than 2002 imports of $2.4 billion. NAM attributes the loss in market share for U.S. products to Chile's FTAs with Canada and Mexico, which entered into force in 1997, allowing Canadian and Mexican products to displace U.S. products in the Chilean market. The loss of $1 billion in U.S. exports to Chile since 1997 represents approximately 12,500 jobs for U.S. workers. Significant declines occurred in U.S. exports of paper products, fertilizers, paints and dyes, heating and construction equipment, mineral fuels, plastics, and certain agricultural products, such as wheat, corn, and soybeans. The U.S.-Chile FTA would result in the immediate elimination of Chilean tariffs on 85 percent of industrial products, with a rapid phaseout of remaining tariffs. This is important because 93 percent of U.S. exports to Chile are manufactured products. The elimination of Chilean tariffs would significantly reduce the disadvantage faced by U.S. exporters of products that are highly price-sensitive and relatively similar to products from other countries.

National Electrical Manufacturers Association[21]

The National Electrical Manufacturers Association (NEMA) is the largest trade association representing the interests of U.S. electrical industry manufacturers. Its 400 member companies manufacture products used in the generation, transmission, distribution, control, and use of electricity. These products are used in utility, industrial, commercial, institutional, and residential installations. NEMA supports the U.S.-Chile FTA and urges its ratification. The association is particularly pleased with the immediate Chilean tariff elimination that will result from the FTA for most of the product scope of NEMA members and hopes that the FTA sets the course for the completion of many more such agreements.

Oregon Raspberry and Blackberry Commission[22]

The Oregon Raspberry and Blackberry Commission (ORBC) is an association that represents growers and processors of raspberries and blackberries. ORBC activities include promotion, research, and education. ORBC states that imports of Chilean red raspberries have had a significant adverse effect on the economic health of the domestic industry.

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[21] John Meakem, Manager, International Trade, National Electrical Manufacturers Association.
[22] Philip Gütt, Administrator, Oregon Raspberry and Blackberry Commission.

Tampa Port Authority[23]

The Tampa Port Authority (TPA) oversees the Port of Tampa, the largest seaport in Florida and 12th largest in the nation. The port handles 50 percent of all waterborne commerce that passes through the state, generates $10.6 billion a year in spending, and supports 93,000 jobs. TPA supports the U.S.-Chile FTA, and the opening of commercial opportunities that it represents. TPA expects the FTA to benefit the Port of Tampa through increased trade, and points to the increased commercial ties between the Port of Tampa and Mexico that resulted from the NAFTA. TPA concludes that expanding trade with Chile is indicative of greater market opportunities throughout the hemisphere.

Telecommunications Industry Association[24]

The Telecommunications Industry Association (TIA) is a U.S.-based, non-profit trade association serving the U.S. communications and information technology industries. TIA's activities include domestic and international advocacy, market development, industry trade shows, standards development, and e-business initiatives. Its membership comprises more than 1,000 companies that manufacture and supply telecommunication products and services.

TIA supports the U.S.-Chile FTA, and states that the agreement will increase bilateral trade and investment opportunities. TIA also supports certain provisions that it believes are important to its member companies. For example, TIA approves of provisions in the telecommunication services chapter that ensure access to and use of public telecommunication networks and services on a non-discriminatory basis. Moreover, TIA believes that the provisions of the telecommunications chapter provide a high level of transparency in telecommunication services by ensuring the publication of telecom regulations and consultation on regulatory matters, and by instituting a prior notice period for new regulations and changes to existing regulations. TIA also supports provisions allowing full-recourse appeals to decisions of regulatory bodies.

TIA also favors the inclusion of non-binding language allowing telecommunication service providers to choose the technologies used in the supply of telecommunications services, including commercial mobile wireless services. However, the TIA emphasizes the need for binding language on technological neutrality in future agreements.

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[23] John Thorington, Director of Government Relations, Tampa Port Authority.
[24] Matthew J. Flanigan, President, Telecommunications Industry Association.

Tile Council of America, Inc.[25]

Tile Council of America, Inc. (TCA) is a national industry association comprised of over 40 manufacturers of ceramic tiles and related products that produce more than 50 percent of the ceramic tile made in the United States.[26]

TCA opposes the U.S.-Chile FTA, stating that the U.S. ceramic tile industry should have been excluded from further tariff reductions or concessions in FTA negotiations with Chile, as well as from other ongoing or future bilateral and sub-regional FTA negotiations. TCA also expresses serious concern that the lack of an enforceable rule-of-origin protocol could make Chile a transshipment point for ceramic tiles produced elsewhere, particularly Peru, where the Chilean industry has considerable investment in tile producing operations. Peru is currently eligible for trade favored status under the Andean Trade Preference Act. TCA states that the U.S. ceramic tiles industry is highly import sensitive, with a domestic market import penetration level of 77.3 percent in 2002. According to TCA, competition from low-priced imports has placed downward pressure on prices and forced a number of U.S. tile companies to close plants or go out of business during 2001-2003, including operations in Arkansas, Indiana, North Carolina, Texas, Iowa, and Ohio. Moreover, surviving domestic producers are reported to be operating well below capacity during a period of high demand for ceramic tile products. TCA notes that although Chile does not currently account for a significant level of U.S. ceramic tile imports, another source of low-priced imports would seriously exacerbate the already precarious situation of the U.S. industry.

Wheat Export Trade Education Committee, National Association of Wheat Growers, and U.S. Wheat Associates[27]

The Wheat Export Trade Education Committee, the National Association of Wheat Growers, and the U.S. Wheat Associates are nonprofit associations representing and promoting U.S. wheat growers and U.S. wheat exporters. These three groups support the U.S.-Chile FTA.

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[25] Juliana M. Cofrancesco and John F. Bruce of Howrey, Simon, Arnold, and White Attorneys at Law, counsel to Tile Council of America, Inc.

[26] TCA notes that its comments are limited to the likely impact of the U.S.-Chile FTA on the U.S. industry that produces ceramic tiles classified under HTS headings 6907 and 6908.

[27] Barbara Spanger, executive director, Wheat Export Trade Education Committee; Daren Coppock, CEO, National Association of Wheat Growers; and Alan T. Tracy, President, U.S. Wheat Associates.

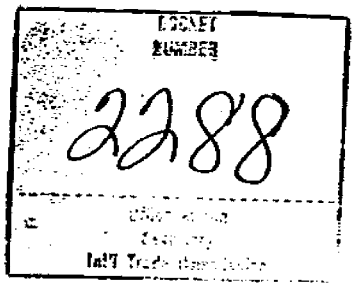
According to the three groups, Chile imports on average 300,000 to 400,000 metric tons of wheat annually, but has maintained a price band system designed to "smooth out" the impact of world price fluctuations on Chilean wheat producers. Under the agreement, the price band is to be phased out over 12 years, and Chile will develop another support system for its producers that is WTO compatible. The groups indicate that the proposed FTA, "will in effect enable U.S. wheat producers to catch up in terms of having equal access to the Chilean wheat market," as do Chile's current wheat suppliers, Canada and Argentina.

The groups also note, however, that because of the Canadian Wheat Board (CWB) monopoly on Canadian wheat exports and its ability to price discriminate, "U.S. wheat producers will still not face a level playing field" in Chile. The issue of the CWB as a state-trading enterprise must be dealt with separately under the WTO or bilaterally with Canada, the three urge.

APPENDIX A
REQUEST LETTERS

chair rec'd 1/21/03
1 - Secretary
2 - ER
3 - OPS

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508



JAN 21

The Honorable Deanna Tanner Okun
Chairman
U.S. International Trade Commission
500 E Street, S.W.
Washington, D.C. 20436

Dear Chairman Okun:

As you know, the United States and Chile recently completed the negotiation of a comprehensive bilateral free trade agreement (FTA). The advice that the U.S. International Trade Commission ("Commission") provided over the course of these negotiations assisted us greatly in bringing the FTA negotiations to a successful conclusion.

The President intends to notify Congress of his intent to enter into the FTA with Chile shortly. Pursuant to authority delegated to me by the President and in accordance with section 2104(f) of the Trade Act of 2002 ("Trade Act"), I request the Commission to prepare a report as specified in section 2104(f)(2)-(3) of the Trade Act assessing the likely impact of the FTA on the United States economy as a whole and on specific industry sectors and the interests of U.S. consumers.

I would greatly appreciate it if the Commission could issue its report as soon as possible. USTR staff will provide the Commission with the details of the FTA now and the final text of the Agreement once the legal review is completed. We will be contacting Commission staff regarding procedures for providing this information to the Commission.

Thank you for your cooperation and assistance in this matter.

Sincerely,

B.Z

Robert B. Zoellick

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

May 30, 2003

Mr. Daniel F. Leahy
Director
Office of External Relations
U.S. International Trade Commission
Washington, D.C. 20436

TA-2104-5

Dear Mr. Leahy:

In accordance with the provisions of section 2104 of the Trade Act of 2002, the President, through the Office of the U.S. Trade Representative (USTR), has been providing the U.S. International Trade Commission (Commission) with details of the U.S.-Chile Free Trade Agreement (FTA). On January 21, 2003, Ambassador Zoellick informed the Commission of the President's plan to notify the Congress of his intent to enter into the FTA with Chile. He requested that the Commission begin preparing the report called for in section 2104(f)(2)-(3) and issue it as soon as possible after the Agreement was signed.

On January 30, 2003, the President notified the Congress of his intent to enter into the FTA with Chile and shortly thereafter the Commission was given access to the confidential text of the Agreement. On March 13, 2003, the Commission formally instituted its investigation No. TA-2104-5, *U.S.-Chile Free Trade Agreement: Potential Economywide and Selected Sectoral Effects*, with a due date of not more than 90 days after the President entered into the Agreement.

Following a technical review of the confidential text, USTR made the text of the FTA available to the public on April 3, 2003. On May 27, 2003 USTR announced that the Agreement will be signed on June 6, 2003. Accordingly, we are providing you with the completed English language text of the Agreement. We request that the Commission finish its investigation and provide its report to the President and the Congress on Monday, June 9, 2003. This will help provide the Congress adequate time to consider your report before the President submits the FTA and its implementing documents for approval this summer. The Commission's continued willingness to assist the Administration and the Congress is most appreciated.

Sincerely,

Brian Gunderson
Chief of Staff

APPENDIX B
FEDERAL REGISTER NOTICE

5. Development of strategic plan

This meeting is open to the public and opportunity will be provided for public comments at specific times during the meeting and prior to closing the meeting. The meeting will be recorded for documentation and transcribed for dissemination. Minutes of the meeting will be available to the public after approval of the full Advisory Commission.

Dated: February 4, 2003.

Arthur Eck,

Acting Regional Director, Pacific West Region.

[FR Doc. 03-6519 Filed 3-18-03; 8:45 am]

BILLING CODE 4310-70-P

INTERNATIONAL TRADE COMMISSION

[Investigation. No. TA-2104-5]

U.S.-Chile Free Trade Agreement: Potential Economywide and Selected Sectoral Effects

AGENCY: United States International Trade Commission.

ACTION: Institution of investigation.

SUMMARY: Following receipt of a request on January 21, 2003, from the United States Trade Representative (USTR), the Commission instituted investigation No. TA-2104-5, U.S.-Chile Free Trade Agreement: Potential Economywide and Selected Sectoral Effects, under section 2104(f) of the Trade Act of 2002 (19 U.S.C. 3804(f)).

Background

As requested by the USTR, the Commission will prepare a report as specified in section 2104(f)(2)-(3) of the Trade Act of 2002 assessing the likely impact of the U.S.-Chile FTA on the United States economy as a whole and on specific industry sectors and the interests of U.S. consumers. The report will assess the likely impact of the agreement on the United States economy as a whole and on specific industry sectors, including the impact the agreement will have on the gross domestic product, exports and imports, aggregate employment and employment opportunities, the production, employment, and competitive position of industries likely to be significantly affected by the agreement and the interests of United States consumers.

In preparing its assessment, the Commission will review available economic assessments regarding the agreement, including literature regarding any substantially equivalent proposed agreement, and will provide in its assessment a description of the analyses used and conclusions drawn in such literature, and a discussion of areas of consensus and divergence between the various analyses and conclusions, including those of the Commission regarding the agreement.

Section 2104(f)(2) requires that the Commission submit its report to the President and the Congress not later than 90 days after the President enters into the agreement, which he can do 90 days after he notifies the Congress of his intent to do so. The President notified the Congress on January 30, 2003, of his intent to enter into an FTA with Chile.

The ITC has begun its assessment, and it will seek public input for the investigation when a public version of the agreement is made available by the U.S. Trade Representative. The ITC will issue a follow-up **Federal Register** notice and media advisory when it schedules this portion of its investigation.

FOR FURTHER INFORMATION CONTACT: Information may be obtained from James Stamps, Project Leader, Office of Economics (202-205-3227). For information on the legal aspects of this investigation, contact William Gearhart of the Office of the General Counsel (202-205-3091). For media information, contact Peg O'Laughlin (202-205-1819). Hearing impaired individuals are advised that information on this matter can be obtained by contacting the TDD terminal on (202-205-1810).

List of Subjects: Chile, tariffs, trade, imports and exports.

By order of the Commission.

Issued: March 13, 2003.

Marilyn R. Abbott,

Secretary.

[FR Doc. 03-6485 Filed 3-18-03; 8:45 am]

BILLING CODE 7020-02-P

DEPARTMENT OF JUSTICE

Federal Bureau of Investigation

Criminal Justice Information Services Division; Agency Information Collection Activities: Proposed Collection, Comments Requested

ACTION: 60-day notice of information collection under review; revision of a currently approved collection; Hate Crime Incident Report and Quarterly Hate Crime Report.

The Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Division has submitted the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with established review procedures of the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted until May 19, 2003.

All comments and suggestions, or questions regarding additional information, to include obtaining a copy of the proposed information collection instrument with instructions, should be directed to Gregory E. Scarbro, Unit Chief, Federal Bureau of Investigations, Criminal Justice Information Services Division (CJIS), Module E-3, 1000 Custer Hollow Road, Clarksburg, West Virginia 26306, or facsimile to (304) 625-3566.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Comments should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques of other forms of information technology, *e.g.*, permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of information collection:* Revision of a currently approved collection.

(2) *The title of the form/collection:* Hate Crime Incident Report and Quarterly Hate Crime Report.

(3) *The agency form number, if any, and the applicable component of the department sponsoring the collection:* Forms 1-699 and 1-700; Criminal Justice Information Services Division, Federal Bureau of Investigation, Department of Justice.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: Local and State Law Enforcement Agencies. These reports

APPENDIX C
THE GTAP MODEL

APPENDIX C
THE GTAP MODEL

The discussion that follows focuses on the quantitative analysis incorporated in this report—the computable general equilibrium (CGE) analysis presented in chapter 4.

The GTAP Model

This appendix details the procedures used to adapt the standard Global Trade Analysis Project (GTAP) model in order to assess the likely impacts of the U.S.-Chile FTA. First, the basic features of the static GTAP model are introduced. Second, the adjustments made to the standard database are discussed. The third and fourth sections present various aspects of the baseline construction and model solution techniques. The fifth section discuss the estimation of the likely economic effects of the FTA and the last section discusses model limitations.

The Standard GTAP Model[1]

The GTAP model is a static CGE model consisting of a documented global database on international trade, economywide interindustry relationships, national income accounts, and a standard modeling framework to organize and analyze the data. It allows for comparisons of the global economy in two environments: one in which the base values of policy instruments such as tariffs or export restrictions are unchanged, and another in which these measures are changed, or shocked, to reflect the policies that are being studied. A change in policy makes itself felt throughout the economies depicted in the model. The static model by design does not produce information about the speed with which changes occur, about what happens to various dimensions of the economies in the meanwhile, or what may have happened to change some of the underlying dynamic structures of the economies, such as specific patterns of foreign direct investment or technological changes that may alter the future growth pattern of economies.

Results from the GTAP model are based upon established global trade patterns. This means that the model is unable to estimate changes in trade in commodities that historically have not been traded. That is to say, if a particular commodity is not traded between two economies, the model will assume that there will always be no trade in

[1] For further information, see T.W. Hertel, ed., *Global Trade Analysis: Modeling and Application*, Cambridge: Cambridge University Press, 1997.

that commodity.[2] Furthermore, patterns of trade may exist for such reasons as the distance between countries or cultural preferences, which are imperfectly captured by the model. The GTAP model does not directly account for historical or cultural factors as determinants of trade patterns. The model assumes that these factors are unaffected by the trade policy change.

In the GTAP model, domestic products and imports are consumed by firms, governments, and households. Product markets are assumed to be perfectly competitive (implying zero economic profit for the firm), with imports as imperfect substitutes for domestic products (i.e., consumers are aware of the source of the products and may distinguish between them based on the foreign or domestic origin), and sectoral production determined by global demand and supply of the output.

Updating the GTAP Database

The current version of the GTAP database (release 5.3) covers trade in 57 commodity aggregates, or GTAP sectors, among 78 economies.[3] For the purpose of the present analysis, the database has been aggregated into 13 economies and 22 commodity groups (table C-1). The commodity aggregation adopted here focuses either on GTAP sectors with either substantial trade between the United States and FTA partner economy or on GTAP sectors with substantial domestic-world prices wedges.

In addition to the data on bilateral trade in each of the commodities in the model, data are incorporated on the domestic production and use of each commodity (including use in the production of other commodities), the supply and use of land, labor, capital, population, and gross domestic product (GDP). The database also contains information on tariffs, some nontariff barriers, and other taxes. An additional component of the data is a set of parameters which, in the context of the model's equations, determine economic behavior. These are principally a set of elasticity values that determine, among other things, the extent to which imports and domestically produced goods are substitutes for one another.

The standard GTAP data is based on the year 1997—i.e., trade flows and barriers, and other data refer to the world in that year. For the purpose of the present study, the standard data were projected to reflect 2004, using data from the U.S. Department of Commerce (U.S. imports and exports, as well as U.S.-Chile bilateral trade), and the World Bank (population, GDP, and capital stock). The trade protection data also was adjusted to reflect Chile's free trade agreements with Canada, Mexico, Mercosur, and

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[2] This shortcoming does not affect the analysis here because the sectoral specification, shown in table C-1, is quite aggregated. At that level of aggregation, there is trade for all sectors.

[3] Betina V. Dimaranan, Memo regarding candidate database for GTAP interim release 5.3, Center for Global Trade Analysis, Purdue University, Feb. 7, 2003, and Betina V. Dimaranan and Robert A. McDougall, *Global Trade, Assistance, and Production: The GTAP 5 Data Base,* Center for Global Trade Analysis, Purdue University, 2002.

Table C-1
Commodity and regional aggregation

Commodity aggregation	Regional aggregation
Fishing	United States
Forestry	Canada and Mexico
Grains	Chile
Sugar crops	Mercosur
Vegetables, fruits, and nuts	Rest of the Americas
Other crops	Singapore
Livestock	East Asia
Coal, oil, gas, and other minerals	Rest of Asia
Meat products	Australia and New Zealand
Dairy products	European Union (EU-15)
Sugar	Southern African Customs Union (SACU)
Other processed food and tobacco products	Rest of Sub-Saharan Africa
Textiles, wearing apparel, and leather products	Rest of world
Wood products	
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	
Ferrous metals	
Metals n.e.c. and metal products	
Motor vehicles and parts and other transportation equipment	
Electronic equipment	
Other machinery and equipment	
Other manufactures	
Services	

Source: Compiled from the GTAP database.

the European Union, as well as all policy measures ratified under the Uruguay Round and the Agreement on Textiles and Clothing (ATC). This updated data are used as the base data for the current analysis.

Construction of the Projected Baseline

In an effort to approximate a dynamic process in which the world's economies change over time, the impacts of the FTA are measured against a 12-year projected baseline (from 2004 to 2016) constructed using data from the World Bank.[4] In order to produce the projected baseline, the model takes into account expected growth in both resources (factors of production) and in the efficiency of the productive technology in the economies under consideration.

[4] This 12-year period is divided into three intervals (beginning of 2004 to beginning of 2008, beginning of 2008 to beginning of 2012, and beginning of 2012 to beginning of 2016). The data include projections of population and GDP.

GTAP has five factors of production (capital, skilled labor, unskilled labor, land, and natural resources). In creating the projected baseline, the land and natural resource endowments were assumed to remain fixed, while both types of labor and capital are allowed to grow. Estimates of growth in the capital stock were assumed to be in line with the World Bank projections.[5] Growth rates of skilled and unskilled labor were assumed equal to the projections of population growth rates.[6]

The World Bank data do not report expected growth in total factor productivity (TFP), a variable that represents the growth of economic efficiency in each economy. However, the implicit rate of TFP growth can be derived from model simulations that estimate the efficiency gains that would allow the projected growth in inputs to produce the expected growth in output.[7] In order to determine the baseline growth in TFP, the GTAP model is adjusted so that it addresses this, using projections of labor, capital, and GDP. The additional efficiency needed to produce the projected change in output then becomes an input into the projected baseline.[8]

For each time interval of the projected baseline, the protection data are changed to reflect the phasing-in of trade policy measures under the Uruguay Round and the ATC. Thus, economic conditions in 2001 reflect reductions in export subsidies and import tariffs for food and agricultural products, import tariffs for other goods, and expansion of quotas for textiles and clothing agreed to in the Uruguay Round. In particular, it is assumed that the 1997 data reflect a portion of the food and agriculture trade liberalization agreed to in the Uruguay Round—50 percent for developed countries and 33 percent for developing countries—as well as a portion of trade liberalization on other goods. The 2001 baseline data show food and agriculture import tariffs and export subsidies that are 18 percent lower than the 1997 rates for developed countries, and 8 percent lower for developing countries. The 2001 baseline data reflect observed applied tariffs for other U.S. imports. The 2004 baseline data reflect agriculture and food tariffs and exports subsidies which are 8 percent lower than the 2001 rates for developing countries. The 2004 baseline data reflect for food

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[5] In the development of the baseline from 1997 to 2016, regional investment in new capital goods was made consistent with the capital stock growth rates from the World Bank forecasts.

[6] The World Bank projects population growth, but does not project how the composition of the population changes over time. There are likely to be changes over time in the rate of unemployment, the share of workers that could be considered skilled, and the productivity of the average worker. Without projections on these variables, they are assumed fixed over time.

[7] Solving the model to produce TFP growth rates is equivalent in concept to the growth accounting approach typically used in simple calculations. In growth accounting, 3 percent growth in GDP and 2 percent growth in inputs (capital and labor) implies a 1 percent (3 - 2 = 1) increase in TFP. Because the mathematical structure of the GTAP model is more complicated than the model used in growth accounting, we could not use growth accounting, though the estimates calculated in growth accounting would be quite similar to those calculated within the model. Because the purpose of the exercise is to eventually replicate the GDP forecast exactly, TFP growth must be computed within the context of the model.

[8] Economies undergo several kinds of technological change over time. These assumptions capture only the average change in an economy's ability to change a given bundle of inputs into output. One aspect of technical change is how the nature of an economy's input-output structure changes over time. For example, as a developing economy grows, it may begin to use a larger share of capital (tractors) in agricultural production. These projections assume no change in input-output structures over time.

and agriculture import tariffs and export subsidies agreed to in the Uruguay Round of 36 percent for developed countries and 24 percent for developing countries. Regarding textiles and clothing, in the GTAP database, the direct impact of textiles and clothing quotas is modeled as an export tax; to model the expansion and then the removal of those quotas, the relevant export taxes are reduced by about 16 percent in 2001 and 2004; the remaining (about 70 percent) export taxes are removed completely in 2008.

Solution Technique

A typical experiment conducted in the standard GTAP framework measures the long-term effects of a one-time, full implementation of an agreement.[9] It is assumed in the model that sufficient time is allowed to let the full effect of the agreement work its way through the economy. Reported figures show the effects of a trade policy shock as it would have appeared in the base year of the data. Such estimates require no assumptions about the time required for full adjustment. The primary disadvantage of the static approach is that it does not account for expected changes in the economy over time.

In the present counterfactual analysis, the baseline described earlier is assumed to represent a reasonable projection of the likely evolution of the relevant variables in the absence of the U.S.- Chile FTA or other trade policy changes.[10] The modeling approach is a sequential simulation of the static GTAP model, with an updating procedure that allows key macroeconomic variables in the model to match the World Bank projections of these variables.[11] This framework allows for changes in the productive resources (capital and labor) available in each economy, as well as their productivity, so that the changing trade pattern can be affected both by the tariff cuts and by projected changes in inputs and in economywide output. The effects of the agreement at a given point in time are estimated by (1) calculating baseline data by shocking the model with cumulative increases in labor, capital and TFP, (2) solving the model once again using the FTA liberalization, and (3) reporting the results of the modeling. This procedure is done for each solution point (2004, 2008, 2012, and 2016). It is assumed that trade barrier elimination starts in 2004, with gradual phase-outs. Economic agents portrayed in the model are not able to link the periods of

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[9] See, for example, USITC, *The Impact on the U.S. Economy of Including the United Kingdom in a Free Trade Arrangement with the United States, Canada, and Mexico*, USITC pub. 3339, August 2000, or USITC, *Overview and Analysis of the Economic Impact of U.S. Sanctions with Respect to India and Pakistan*, USITC pub. 3236, September 1999.

[10] It should be stressed that the baseline is not intended as a forecast, but as a projection that relies on average expected growth rates. Unexpected events may lead the actual macroeconomic evolution of the variables of interest to differ substantially from the projected baseline. The projected baseline is simply the Commission's best estimate of how these variables are expected to evolve, given the projections from the World Bank.

[11] The model is solved using the GEMPACK software system documented in Harrison, W.J. and Pearson, K.R. (1994), *An Introduction to GEMPACK, Release 5.1*, GEMPACK Document No. GPD-1, Second Edition, Monash University, April, 1994.

time when they make their decisions.[12] Thus, the decision makers are not forward-looking, they simply act in each period as the relevant resource constraints bind them to do.

The results of this analysis depend on many parameters that are included in the model (e.g., response parameters or projected baseline). Given the forward-looking nature of this analysis, there is no presumption as to the exact levels of those parameters. Hence, Commission staff has conducted a series of simulations using different assumptions regarding (1) the relative growth of the U.S. economy and,[13] and (2) the economies' responsiveness to changes in prices of imports (i.e., the Armington assumption).[14] As it is expected, at the sector level, the range of FTA impacts for U.S.-Chile bilateral trade as well as for the majority of total U.S. trade is driven by the Armington assumptions. Only for a few sectors do the U.S. growth assumptions affect the range of impacts.

Measuring the Impacts of the FTA

The probable effects of the FTA reported are simply the deviations of the relevant variables from their levels in the projected baseline, at any given solution point. Reported deviations in economic variables like production, trade, and income, indicate the likely degree to which the policy causes the modeled economies to deviate from their expected paths. Changes in the variables of interest are measured in percentage terms, relative to the projected baseline.

Given the varying assumptions regarding the relative growth of the U.S. economy and, and the degree of responsiveness to changes in trade policies, Chapter 4 presents the ranges of the likely impact of the FTA on selected economic variables. Tables C-2 to C-4 report sectoral impacts for U.S. imports, exports and output at mid-point implementation of the agreement for simulations with the base case parameters.[15]

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[12] In this sense, the model is not quite as rigorous as some dynamic CGE models, which allow the agents the possibility to consider future outcomes when making current decisions.

[13] Commission staff varied annual U.S. growth rates for the period 2004-16 from 20 percent lower than the standard World Bank projection to 20 percent higher.

[14] In the GTAP model, the responsiveness to trade policy changes is captured by the Armington elasticities of substitution. The default values for these elasticities are based on reviews of the econometric literature. In this study, Commission staff considered a range of the elasticities between a power of two-thirds and three-halves of their default GTAP values. For a discussion of the Armington assumption and parameters in the CGE model used in this report, see Chapters 2 and 4 in Hertel, T. W., editor, *Global Trade Analysis: Modeling and Applications*, Cambridge University Press, 1997.

[15] In the CGE simulations performed in this report, the numeraire is defined as the income-weighted average of U.S. primary factor returns. Thus, on average, primary factor returns do not change in the United States. Decreases in the relative prices of consumables, however, might suggest that the purchasing power of those returns has increased.

Table C-2
Effects on U.S. exports, 2004-16

Commodity	Total U.S. exports					U.S. exports to Chile				
	2004	2004	2008	2012	2016	2004	2004	2008	2012	2016
	Million dollars[1]	*Percent change*				*Million dollars*[1]	*Percent change*			
Fishing	743	-0.02	-0.02	-0.01	0.00	1	44.65	44.66	44.37	43.42
Forestry	1,842	-0.01	-0.01	-0.01	-0.01	1	36.42	35.80	35.10	34.20
Grains	11,482	0.01	0.02	0.02	0.02	10	25.15	26.05	27.28	28.52
Sugar crops	3	0.03	0.03	0.03	0.03	0	12.45	16.82	22.94	29.43
Vegetables, fruits, and nuts	6,360	0.13	0.14	0.15	0.15	3	30.68	30.60	30.54	30.47
Other crops	12,704	0.05	0.06	0.06	0.06	5	26.35	26.80	27.45	27.94
Livestock	4,555	0.03	0.04	0.04	0.04	4	31.15	31.32	31.85	32.44
Coal, oil, gas, and other minerals	6,987	0.03	0.03	0.03	0.04	13	36.54	37.13	37.96	38.02
Meat products	9,366	-0.01	-0.01	0.00	0.00	5	8.99	16.70	27.82	27.91
Dairy products	765	0.00	0.06	0.07	0.07	3	9.52	27.08	27.24	27.27
Sugar	88	-0.03	-0.03	-0.03	-0.03	0	28.47	28.44	28.42	28.38
Other processed food and tobacco products	28,782	0.10	0.11	0.11	0.11	99	26.40	28.71	29.37	29.29
Textiles, wearing apparel, and leather products	23,369	0.09	0.09	0.08	0.08	73	47.04	47.07	47.43	47.64
Wood products	10,150	0.04	0.04	0.04	0.03	28	32.39	33.05	34.21	34.04
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	133,303	0.06	0.08	0.09	0.09	686	18.61	22.30	22.90	23.14
Ferrous metals	26,637	0.05	0.04	0.04	0.03	78	36.35	36.41	36.59	36.61
Metals n.e.c. and metal products	18,361	0.01	0.00	-0.01	-0.02	11	37.05	36.88	36.78	36.64
Motor vehicles and parts and other transportation equipment	174,622	0.08	0.07	0.07	0.07	496	62.25	62.18	64.41	66.38
Electronic equipment	126,381	0.05	0.05	0.05	0.05	552	23.93	23.61	23.81	23.95
Other machinery and equipment	197,308	0.10	0.10	0.11	0.11	1,093	28.55	28.67	29.17	29.01
Other manufactures	37,522	0.04	0.04	0.04	0.03	124	28.28	28.05	27.99	27.89
Services	355,575	-0.04	-0.05	-0.05	-0.06	826	0.54	0.50	0.48	0.46
Total	1,186,904	0.03	0.03	0.03	0.03	4,108	25.16	26.08	26.51	26.67

[1] Trade figures have been rounded to million dollar units.

Sources: GTAP database and USITC calculations.

Table C-3
Effects on U.S. imports, 2004-16

Commodity	Total U.S. imports					U.S. imports from Chile				
	2004	2004	2008	2012	2016	2004	2004	2008	2012	2016
	Million dollars[1]	*Percent change*				*Million dollars*[1]	*Percent change*			
Fishing	1,816	-0.03	-0.03	-0.03	-0.02	57	-5.38	-5.71	-5.80	-5.06
Forestry	416	0.02	0.02	0.01	0.01	3	0.12	0.43	0.88	1.60
Grains	896	-0.11	-0.11	-0.10	-0.09	100	-1.93	-1.96	-1.98	-1.97
Sugar crops	1	0.00	0.00	0.00	0.00	0	-1.90	-1.96	-2.04	-2.10
Vegetables, fruits, and nuts	8,027	0.58	0.58	0.57	0.55	907	11.50	11.48	11.43	11.26
Other crops	5,586	0.32	0.31	0.30	0.29	50	77.68	76.59	75.57	74.43
Livestock	3,234	0.02	0.02	0.02	0.02	8	-2.29	-2.40	-2.54	-2.64
Coal, oil, gas, and other minerals	99,323	0.02	0.02	0.02	0.02	190	1.09	1.10	1.08	1.04
Meat products	4,634	0.02	0.03	0.03	0.03	0	12.29	12.18	12.04	11.89
Dairy products	1,406	0.57	0.61	0.64	0.67	6	257.18	260.24	263.75	263.39
Sugar	803	0.02	0.03	0.03	0.03	0	377.40	376.87	376.27	375.95
Other processed food and tobacco products	30,127	0.48	0.50	0.50	0.49	798	36.03	36.30	36.86	37.00
Textiles, wearing apparel, and leather products	106,310	0.04	0.04	0.04	0.05	19	139.26	139.98	139.99	139.91
Wood products	35,104	0.03	0.03	0.03	0.04	617	-1.20	-1.08	-0.95	-0.77
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	181,453	0.02	0.03	0.03	0.03	529	0.68	0.83	0.89	0.91
Ferrous metals	38,749	0.04	0.05	0.05	0.06	35	0.55	0.66	0.75	0.83
Metals n.e.c. and metal products	25,179	0.05	0.06	0.07	0.07	717	1.58	1.71	1.82	1.90
Motor vehicles and parts and other transportation equipment	197,413	0.05	0.06	0.06	0.06	9	12.12	12.38	11.92	11.50
Electronic equipment	176,750	0.03	0.03	0.03	0.03	2	2.41	2.61	2.66	2.68
Other machinery and equipment	161,106	0.04	0.04	0.05	0.05	15	2.51	2.67	2.74	2.79
Other manufactures	73,873	0.03	0.03	0.03	0.04	25	-0.56	-0.47	-0.41	-0.34
Services	172,094	0.03	0.03	0.03	0.04	684	-1.16	-1.12	-1.09	-1.09
Total	1,324,298	0.05	0.05	0.05	0.05	4,771	9.87	9.19	8.51	7.78

[1] Trade figures have been rounded to million dollar units.

Sources: GTAP database and USITC calculations.

Table C-4
Changes in sectoral output in the United States, 2004, 2008, 2012, and 2016

(Percent)

Commodity	2004	2008	2012	2016
Fishing	0.00	0.00	0.00	0.00
Forestry	0.00	0.00	0.00	0.00
Grains	0.00	0.00	0.00	0.00
Sugar crops	-0.01	-0.01	-0.01	-0.01
Vegetables, fruits, and nuts	-0.08	-0.08	-0.07	-0.06
Other crops	-0.03	-0.02	-0.02	-0.02
Livestock	0.00	0.00	0.00	0.00
Coal, oil, gas, and other minerals	0.00	0.00	0.00	0.00
Meat products	0.00	0.00	0.00	0.00
Dairy products	-0.01	-0.01	-0.01	-0.01
Sugar	-0.01	-0.01	-0.01	-0.01
Other processed food and tobacco products	-0.02	-0.02	-0.02	-0.02
Textiles, wearing apparel, and leather products	0.00	0.00	-0.01	-0.01
Wood products	0.00	0.00	0.00	0.00
Petroleum, coal, chemical, rubber, plastic products, and other mineral products	0.01	0.01	0.01	0.01
Ferrous metals	0.01	0.00	0.00	0.00
Metals n.e.c. and metal products	0.00	-0.01	-0.01	-0.01
Motor vehicles and parts and other transportation equipment	0.01	0.01	0.01	0.01
Electronic equipment	0.01	0.01	0.01	0.01
Other machinery and equipment	0.02	0.02	0.03	0.03
Other manufactures	0.00	0.00	0.00	0.00
Services	0.00	0.00	0.00	0.00

Sources: GTAP database and USITC calculations.

Model Limitations

Economic models capture the most important factors for the question under consideration. However, they are limited in their ability to reflect the degree of complexity evident in the real world; thus, a number of caveats are in order regarding this modeling framework. One source of bias, found in virtually any quantitative analysis of economic data, arises from the process of data aggregation. In particular, international trade occurs in thousands of different products and services. The United States collects trade data under about 17,000 statistical categories and some 10,000-plus tariff rate lines. For most general equilibrium analysis, these groupings represent far too much detail to be tractable computationally. Furthermore, analysis and comparison of data collected from different economies require that data be aggregated into categories that are generally comparable from one economy to another. This aggregation process introduces two general sources of bias into a modeling exercise.

One source of bias involves the calculation of tariffs for aggregated product categories. In this study, trade-weighted average tariffs were calculated, using the value of trade in a tariff line to weight the tariff in that line. This procedure tends to mask the importance of those products within the aggregate that have particularly high tariffs, and which therefore present a greater barrier to imports than would be the case if all goods within the aggregation had the same average tariff. The relationship between the level of an import-weighted average tariff and the effects of the individual tariffs that comprise the group depend on the correlation between the level of these tariffs and the price responsiveness of final demand to understate the effect of reducing the tariff of a high-tariff component of the aggregate.

Another source of aggregation bias is due to the likelihood that goods within an aggregate may not be close substitutes for one another. In particular, imported goods of a particular category may be quite dissimilar to a economy's domestic product in that category. However, when the price of an import falls, for example, the trade model may indicate a certain amount of substitution of that import for the domestic product when, in fact, they are not close substitutes. In this case, the model would overstate the impact of a given average tariff reduction.[16]

A number of further caveats apply to the dynamic analysis, which requires some additional assumptions about the timing and nature of the economies' responses to the proposed policy shocks. First, the static model makes no specific assumptions about the speed with which changes affect the relevant economies. Because the modeling technique applied here requires a time frame to the adjustment process, assumptions about adjustment times are necessary. Second, the model assumes a single macroeconomic time path, and so does not allow for consideration of unexpected macroeconomic events such as recessions or large currency movements. Assumptions about the path of the projected baseline can affect estimates of the impact of the FTA.

[16] This type of bias is reduced in empirical trade models, like the GTAP model, that apply the Armington assumption, which treats products produced in different economies as imperfect substitutes.

Finally, because there is no information about how input-output relationships are expected to evolve over time, the model assumes no changes in the economies' input-output structures, so that economic or technical changes that lead an industry to substitute one input for another are not considered.

Despite these limitations, the simulations performed here, can be quite useful in providing insights on the effects of an FTA on a number of economic measures. The model presents a unified framework in which to assess the likely effects of the policy. Tying the proposed trade policy framework to a time line that includes expected future economic changes allows estimation of the economic effects in the future.