Assessment of the Economic Effects on the United States of China's Accession to the WTO

Investigation No. 332-403

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U.S. International Trade Commission

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Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

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Project Staff

Office of Economics

Arona Butcher, Project Leader

abutcher@usitc.gov; 202-205-3255

James Stamps, Deputy Project Leader

Kyle Johnson, Edward Wilson, and Michael Ferrantino

Office of Industries

Dennis Fravel, Coordinator

Tsedale Assefa, Jennifer Baumert, Laura Bloodgood, Richard Brown, Stephen Burket, Heidi Colby, Jackie Jones, Dennis Luther, Christopher Melly, Michael Nunes, John Reeder, Melani Schultz, Joann Tortorice, and Amanda Yarusso

U.S. Department of Agriculture

Economic Research Service

Mark Gehlhar and Zhi Wang

Office of Tariff Affairs and Trade Agreements

Daniel Shepherdson

Reviewers

David Ingersoll, Jan Summers, and Linda Linkins

Administrative Support

Patricia M. Thomas and Paula R. Wells

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EXECUTIVE SUMMARY
Assessment of the Economic Effects on the United States of China's Accession to the WTO

On December 18, 1998, the U.S. Trade Representative (USTR) asked the U.S. International Trade Commission (USITC) to prepare a report assessing the probable economic effects on the United States of China's accession to the World Trade Organization (WTO). The USTR requested that the USITC use formal economic analysis to provide, to the extent possible, a quantitative assessment of the effects on the U.S. economy of China's WTO membership, specifically in reference to possible reductions in China's tariff and non-tariff measures and to China's participation in the WTO Agreement on Textiles and Clothing. In supplemental requests from the USTR on May 5, 1999 and June 16, 1999, the Commission was also asked to analyze the specific tariff and market access offers respectively, made by China in April 1999 in the context of its WTO accession negotiations.

In responding to this request, the USITC has used a combination of analytical techniques. Because the necessary data were available, the USITC was able to conduct a quantitative analysis of the effect of various tariff reductions, including China's April 1999 tariff offer, on both the U.S. and Chinese economies. This analysis was developed using a multi-country economic model with economy-wide coverage of merchandise and service sectors, *i.e.*, a global computable general equilibrium model, described in this study as the China-WTO model. The model attempts to isolate and measure the effects of the tariff reductions on the U.S. and Chinese economies by comparing the actual state of the economy with what it would have looked like if the tariff reductions had been in place. The China-WTO model was also used to estimate the impact of removing import quotas on textiles and apparel from China in the context of the WTO Agreement on Textiles and Clothing.

Because the data were not available in the time provided for this study, the USITC was, for the most part, unable to quantify through formal economic analysis the effect of reductions in China's non-tariff barriers (NTBs). Instead, a qualitative analysis of such reductions is provided. In these cases, input from other sources is used to assess the likely economic impact.

Through this combination of analytical techniques, the report attempts to provide a more complete and balanced picture of the effect of China's WTO accession than would be offered by either approach in isolation. A global CGE model, such as the China-WTO model, which estimates not only the static effects of the proposed tariff cuts but also accounts for the growth effects of such trade reductions is the best economic tool available for estimating the impact of the tariff aspects of China's WTO accession. However, given the significance of NTBs in China's trade policy regime, the inability to fully quantify the impact of their removal imposed limitations on the quantitative results offered by this study. The effects resulting from NTB changes are found primarily through the qualitative approach.

Many sources of information were consulted for this analysis. Data were obtained from an economic literature review, from USITC contacts with the U.S. private sector, the U.S. Department of Commerce, the United Nations, the International Monetary Fund, the Institute for International Economics in Washington, D.C., the International Textiles and Clothing Bureau in Geneva, Switzerland, the World Trade Analyzer database of Statistics Canada, the Global Trade Analysis Project database, the U.S.-China Business Council, and the China Statistical Yearbook produced by China's State Statistical Bureau. A public hearing for this investigation was held on February 23, 1999. Testimony from the hearing, pre- and post-hearing statements, and written submissions also provided useful information on Chinese non-tariff barriers,

trade-related investment measures, and service sectors, and was integrated into this report.

Overview of China's Trade and Investment

To examine the overall impact on the U.S. economy of China's accession to the WTO, this study begins by examining the current relationship between the economy of the United States and that of China; the nature of the trade patterns between the United States, China, and the rest of the world; and the nature of the changes that would be made in China if China makes all of the commitments necessary to accede to membership of the WTO.

China's economy has been growing rapidly in recent years. According to the Chinese data, the compounded annual growth rate of real Gross Domestic Product (GDP) in China exceeded 11 percent per annum over the period 1990-97. This growth has produced a very large Chinese economy with a GDP of $1 trillion or more. The World Bank reports China's 1997 per capita income on an exchange rate basis to be $860 a year. This gives a total GDP of $1.1 trillion, the world's seventh largest and about 14 percent the size of the U.S. GDP. Because the cost-of-living in China is so low, the size of China's economy as measured on a purchasing-power-parity (PPP) basis is much larger than when measured on an exchange rate basis. On a PPP basis, China's per capita income is reported at $3,570 and its total GDP at $4.4 trillion. On this basis, China is the world's second largest economy, about 57 percent the size of the U.S. economy.

Despite the large size of China's economy and the significant amount of trade occurring between the United States and China, U.S. merchandise trade with China remains small relative to the overall size of the U.S. economy. Total U.S.-China trade in 1998 was estimated at $84.7 billion using U.S. trade data, which is less than 1 percent of the U.S. GDP. Chinese data would indicate a smaller figure, due largely to the fact that China excludes goods passing from China through Hong Kong and then to the United States from its total figures on exports to the United States. Either figure, however, would leave U.S. total trade with China as accounting for a small percentage of U.S. overall GDP.

China's trade, both with the United States and with the rest of world, has grown rapidly in recent years. Overall, the gross volume of China's merchandise trade grew from $21 billion in 1978 to $324 billion in 1998. After running trade deficits for most of the 1980s, China's merchandise trade balance with the world moved toward surplus in 1990, and has grown to over $43 billion in 1998. Moreover, the composition of China's trade has also shifted sharply from primary products to manufactures over the last 20 years. By 1997, approximately 87 percent of Chinese exports and 80 percent of Chinese imports consisted of manufactured goods. China's key exports include apparel, footwear, toys, games, sports equipment, and leather products. Key imports into China include aircraft, spacecraft, electrical machinery, fertilizer, and non-electrical machinery.

This study starts with these and other key factors about the U.S. and the Chinese economies and world trade patterns and then examines what changes would occur should China join the WTO. Accession to the WTO will require numerous policy changes in China, including significant reductions in China's tariffs, the removal of non-tariff barriers that currently impede U.S. exports to China, the opening up of China's service sector, the further protection of intellectual property rights, and the elimination of many barriers to trade in agricultural products. Because the United States is already a member of the WTO, the United States will not have to make any changes to its tariffs or other trade policies as a result of China's accession to the WTO, except for the application of the WTO's Agreement on Textiles and Clothing's phase out of quotas on textile and apparel imports. As such, the vast majority of the results presented reflect changes that must occur in China's economy and trade patterns, since it is China, and not the United States or the rest of the world, that will be required to make significant changes as part of the process of acceding to the WTO.

Summary and Findings Regarding China's WTO Accession

Effects on the U.S. Economy of the Removal of China's Non-Tariff Barriers

The results of the qualitative analysis of the removal of China's NTBs show that U.S. exports to China and U.S. foreign investment in China are likely to increase as a result of the removal of NTBs in the context of China's accession to the WTO. Chinese NTBs operate as part of an industrial policy aimed at achieving economic development of specific industry sectors. Combined with high tariffs, they overlap and serve as a web of protection for those industries that

China desires to develop to maintain self-sufficiency in the Chinese economy. Given this policy approach, it is difficult to isolate the effect of an individual barrier or the impact of removing one relative to another.

Taking into account China's April 1999 offer, the study examined a broad array of NTBs, including licensing, quotas, tendering, transparency, national treatment, judicial review, state trading, offsets, and transfer and protection of technology restrictions on many individual industries' operations. Further, this analysis assesses the effects of several trade-related investment measures, including export performance requirements, local content requirements, and trade and foreign exchange balancing. The assessment is based on input received from industry and a review of the relevant literature.

As noted earlier, the study's analysis of the impact of NTB removal is primarily qualitative because of data limitations. However, in conjunction with an analysis of a hypothetical 50 percent cut in China's tariffs, the study found that the elimination of NTBs in 25 products, covering only 30 percent of China's imports, had a significant impact, effectively doubling the impact of the tariff reductions on such variables as growth in U.S. GDP and improvement in U.S. terms of trade. While these results cannot be generalized, they do give some measure of the restrictive effect of these non-tariff barriers.

A summary of the effects on U.S. trade and investment is presented in table ES-1 below.

Table ES–1
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non–tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non–tariff barrier	Sectors affected	Effects
Licensing and quotas License–permission to import a particular product given by the government to importers and issued in the form of a license. Quotas–quantity limits on imports set by the government.	Pillar industries, such as grains, cotton, chemicals, motor vehicles, consumer electronics, cameras, and certain other products.	***Trade:*** Increased U.S. export opportunities and reduced trade costs in fees and time. For some sectors, potential benefits may depend on Chinese Government industrial and agricultural policies, as well as the role of state trading enterprises. ***Investment:*** Little or no increase in U.S. investment opportunities. Licensing and quotas were used to protect Chinese industry from imports and in order to access the Chinese market, foreign companies would invest in manufacturing in China. With these barriers removed, the incentive to invest in China because of these barriers is significantly reduced.
Tendering A centrally administered procurement process that lacks transparency, is non–competitive, and may be used to limit imports.	Selected machinery and electronics.	***Trade:*** Increased U.S. export opportunities due to the competition process becoming more transparent and less controlled. Potential benefits may, in part, depend upon the extent to which Chinese state–owned and state–invested enterprises operate in a commercial manner, as China has committed to in its April 1999 offer. ***Investment:*** Little or no increase in U.S. investment as U.S. exporters realize that they are not constrained to produce in China in order to gain an advantage in the tendering process.

Table continues on next page.

Table ES–1—*Continued*
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non–tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non–tariff barrier	Sectors affected	Effects
National Treatment Treating imports on the same basis as domestic products and services.	All sectors.	***Trade:*** Increased U.S. export opportunities as mandates for local products are eliminated. Potential benefits may, in part, depend upon the extent to which Chinese state–owned and state–invested enterprises operate in a commercial manner, as China has committed to in its April 1999 offer. In addition, benefits would also depend upon how China implements its industrial policies. ***Investment:*** Increased U.S. foreign investment opportunities in China as foreign investors would be allowed to invest in more sectors of the economy.
Transparency Laws, rules, regulations, procedures, and the like readily available to interested parties.	All sectors.	***Trade:*** Increased U.S. export opportunities as transparency in the government decision–making process improves–that is, as access to the applicable rules and regulations that govern the process improves and as the ability to observe whether the decision was made in accordance with those rules and regulations improves. This outcome assumes most decisions will be made in accordance with published rules and regulations. ***Investment:*** Increased U.S. foreign investment opportunities due to the aforementioned reasons and assumptions with regard to trade.
Judicial review Impartial, independent, and accessible review and settlement of disputes.	All sectors.	***Trade:*** Increased U.S. export opportunities due to bias removed from the system and improved transparency. ***Investment:*** Increased U.S. foreign investment opportunities in China as investors gain confidence about operation of China's trade and investment regime.
State trading Import and export activities limited to either state enterprises or entities designated by the government.	Grains, tobacco, cotton, vegetable oils, sugar, alcoholic beverages, and petrochemicals, as well as rubber, timber, wool, acrylic, and steel.	***Trade:*** Increased U.S. export opportunities likely as a result of state trading being liberalized in certain sectors and trading rights for distribution forthcoming. However, WTO enforcement of rules on state–trading enterprises has been low. ***Investment:*** Negligible, since foreign investment is generally prohibited or limited.

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Table ES–1—*Continued*
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non–tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non–tariff barrier	Sectors affected	Effects
Offsets Incentive payments used by the seller in order to secure procurement by the buyer. May take many forms, such as investment, technology transfer, co–production, barter, and countertrade.	Aerospace, automobiles, electronics, telecommunications equipment.	***Trade:*** Increased U.S. export opportunities, depending upon the degree to which voluntary collaboration replaces government–mandated offsets in sales. ***Investment:*** Uncertain, since data are not available as to the current degree of investment due to government mandates or U.S. companies' desire to improve customer service or establish a presence in the Chinese market.
Transfer and protection of technology Official or unofficial rules and procedures to coerce transfer of technology. Official rules and mechanisms for the protection of intellectual property rights.	Manufacturing and processing industries.	***Trade:*** Increased U.S. export opportunities because the transfer of technology will be increasingly protected in accordance with international norms. This outcome assumes most decisions will be made in accordance with published rules and regulations. ***Investment:*** Increased U.S. foreign investment opportunities in China as investors are not forced to transfer technology and China increases efforts to protect technology. This outcome assumes most decisions will be made in accordance with published rules and regulations.
Export performance requirements Government requirements stipulating minimum amounts of production that must be exported. Under China's April 1999 offer, China has agreed to go beyond the WTO Agreement on Trade–Related Investment Measures (TRIMS), which does not include export performance requirements.	Manufacturing, including aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile and apparel industries.	***Trade:*** Possible decrease in U.S. imports from China. However, U.S. companies may incur costs in reorienting their operations toward the Chinese market. ***Investment:*** Increased U.S. foreign investment opportunities in China as export performance requirements may no longer influence the type of investment to be made in China.

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Table ES–1—*Continued*
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non–tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non–tariff barrier	Sectors affected	Effects
Local content requirements Government mandates requiring that production incorporate certain amounts of domestic rather than foreign inputs.	Manufacturing, including aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile and apparel industries.	***Trade:*** Increased U.S. export opportunities as foreign or domestic manufacturers in China may then purchase foreign inputs rather than domestic inputs. Potential benefits, however, will depend in part on how China implements its industrial policies. ***Investment:*** Fewer U.S. foreign investment opportunities as U.S. companies realize that there will be no official laws and regulations that require the use of local content, and therefore they will have the flexibility to import foreign inputs. However, pressures to use local content are likely to continue to impose operational constraints on U.S. firms.
Trade and foreign–exchange balancing requirements Production ventures are required to balance their foreign trade and foreign exchange so as to limit imports.	Virtually all foreign–invested enterprises in China.	***Trade:*** Increased U.S. export opportunities as U.S. firms would be less likely to minimize imports and increase exports from China. ***Investment:*** Increased U.S. foreign investment opportunities in China, but tempered by Chinese informal pressure to control trade and foreign exchange flows.

Source: Compiled by USITC staff.

Effects on U.S. Trade and Investment in Services

Based on China's April 1999 offer, accession to the WTO would likely have a significant positive effect on U.S. trade and investment in services. China's offer proposes to liberalize a number of barriers faced by U.S. service providers. With respect to the services examined in this report, China offered 60 rollback commitments and 5 standstill commitments. The rollback commitments would liberalize or terminate a number of market access barriers faced by U.S. service providers, while the standstill commitments would identify trade impediments and deter the implementation of more restrictive measures. In addition, the Commission identified 11 barriers of uncertain status in the banking, securities, and insurance industries. The effect of implementing the April 1999 offer would be unclear with respect to these instances.

China currently maintains broad restrictions on forms of establishment and land ownership that pertain to all services (table ES-2). In addition, China maintains many industry specific restrictions, including limitations on permissible services, geographic and quantitative restrictions, and limits on broadcasting and distribution. The confluence of these restrictions has limited the ability of U.S. firms to provide services to Chinese consumers. The U.S. Embassy in Beijing estimated that China's current barriers to U.S. service suppliers result in $3 to $5 billion in lost sales each year (see chapter 5). If China's April 1999 offer becomes operative, U.S. service providers could expect to increase sales through affiliates in China.

Chinese restrictions on distribution service providers have been particularly onerous. China's current restrictions on wholesaling and retailing restrict the ability of foreign firms to establish a commercial presence in China. Similar restrictions prevent foreign firms from providing auxiliary distribution services such as maintenance and repair services; rental and leasing services; technical testing, analysis, and freight inspection services; and storage and warehousing services. China's April 1999 commitments would gradually liberalize restrictions in these areas, likely enabling U.S. firms to increase sales and direct investment in China, while enhancing control of the quality of services provided.

Table ES–2
Summary of Non–tariff barriers affecting services

Service sector	Non–tariff barriers	Effects of April 1999 offer
Distribution services		
Wholesaling and retailing services	• Restrictions on establishment. • Foreign equity restrictions. • Limitations on permissible services.	• Increases in sales and direct investment.
Auxiliary distribution services	• Restrictions on establishment. • Limitations on permissible services. • Foreign equity restrictions.	• Increases in sales and direct investment.
Accounting and management consulting services	• Restrictions on establishment. • Foreign equity restrictions. • Restrictions on employment. • Limitations on permissible services.	• Increases in sales and direct investment.
Audiovisual services	• Restrictions on importation and distribution. • Restrictions on establishment. • Quotas. • Limits on broadcasting. • Censorship. • IPR violations. • Local production requirements. • Foreign investment restrictions.	• Increases in sales and investment. However, a restriction maintaining the Chinese Government's right to examine the content of audiovisual products would likely delay the release of foreign products. • The Motion Picture Association estimates increased revenues of $80 million for the motion picture industry.
Courier services	• Restrictions on establishment. • Restrictions on joint venture expansion. • Limitations on permissible services. • Restrictions on employment.	• Increases in sales and direct investment.
Financial services		
Banking and securities services	• Restrictions on establishment. • Minimum asset requirements. • Limitations on permissible services.	• Increases in sales and direct investment. • Broader scope of services. • Some restrictions were not addressed by the April 1999 offer, rendering the effects of operative offer uncertain. • One U.S. banking firm indicated revenues from China–based operations would increase by $5.2 million.
Insurance services	• Limitations on operation. • Restrictions on establishment. • Limitations on permissible services. • Investment restrictions. • Foreign equity limitations. • Employment restrictions.	• Increases in sales and direct investment. • Broader scope of services. • Some restrictions were not addressed by the April 1999 offer, rendering the effects of operative offer uncertain.

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Table ES–2—*Continued*
Summary of Non–tariff barriers affecting services

Service sector	Non–tariff barriers	Effects of April 1999 offer
Telecommunication services	• Restrictions on establishment. • Restrictions on foreign investment. • Limitations on permissible services. • Foreign equity limitations.	• Increases in sales and direct investment.
Entire service sector[1]	• Restrictions on establishment. • Limitations on permissible services. • Foreign equity restrictions. • Restrictions on joint venture expansion. • Restrictions on employment. • Investment restrictions.	• U.S. Embassy, Beijing estimates increased revenues of $3 to $5 billion.[2]

[1] This includes all service sectors, both those treated above as well as those not treated in this study.
[2] U.S. Department of State telegram, "China: Draft 1999 National Trade Estimate," message reference No. 000721, prepared by U.S. Embassy, Beijing, Jan. 22, 1999.

Source: Compiled by USITC staff.

Effects on U.S. Trade in Selected Agricultural Products

China's April 1999 offer on agricultural products included several sectors identified by the United States as priorities: wheat, corn, rice, soybean oil, and cotton. In its offer, China made specific commitments to replace existing barriers with tariff-rate quotas (TRQs)[1] which if implemented, should increase U.S. market access opportunities. These proposed TRQs are at levels substantially above current import volumes. These products have been subject to a number of barriers, including tariffs, quotas, licensing requirements, and state trading. While export potential exists for U.S. industry, the extent of opportunity may be limited by the reserving of a share of imports and exports for state trading enterprises, as well as China's actions on its domestic support policies and third country exports. Foreign investment restrictions are unlikely to change (table ES-3).

[1] The WTO Agreement on Agriculture commits WTO members to tariffication, whereby quantitative restrictions on agricultural imports would be converted into tariffs. WTO members are allowed to replace non–tariff barriers with tariff–rate quotas, in which a low tariff rate is applied to imports of a product up to a particular amount, and a higher tariff is applied to imports in excess of that amount.

Table ES–3
Summary of effects of Chinese institution of tariff–rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Grains:	
Wheat	***Trade:*** Market access opportunities would likely be created by a TRQ. However, the extent of any increase in U.S. exports would depend ultimately upon the role of state trading enterprises, China's production policies, and the competitiveness of U.S. wheat exports relative to Australian and Canadian wheat. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.

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Table ES–3—*Continued*
Summary of effects of Chinese institution of tariff–rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Corn	***Trade:*** Market access opportunities would likely be created by a TRQ. However, the extent of any increase in U.S. exports would depend upon the role of state trading enterprises, China's production policies, and the competitiveness of U.S. corn exports, relative to Argentine or third–country feedgrains. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Rice	***Trade:*** Market access opportunities for U.S. rice would likely be created by a TRQ. However, the extent of any increases in U.S. exports would depend upon the role of state trading enterprises, China's production policies, and the competitiveness of U.S. rice exports. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Oilseeds:	
Soybeans	***Trade:*** Current U.S. market access opportunities maintained. The nominal TRQ on soybeans (announced but never enforced) would be eliminated, and the current 3–percent duty continued. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Rapeseed	***Trade:*** Uncertain. The United States is a net importer of rapeseed and is likely to remain so for the long–term. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Vegetable oils:	
Soybean oil	***Trade:*** Market access opportunities would likely be created by a TRQ and by a lower in–quota tariff rate. However, the extent of any increase in U.S. exports would depend upon the role of state trading enterprises, China's production policies, and the competitiveness of U.S. soybean oil exports relative third–country palm oil, rapeseed oil, and soybean oil exporters, and the extent of the VAT. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.

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Table ES–3—*Continued*
Summary of effects of Chinese institution of tariff–rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Vegetable oils–*Continued*	
Peanut oil	***Trade:*** Uncertain. Total U.S. exports were valued at $4.5 million in 1998, with no exports to China. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Palm oil	***Trade:*** Uncertain. Since the United States does not produce palm oil, there would be a negligible effect on U.S. exports of palm oil to China. However, to the extent that a TRQ on palm oil is sufficiently open, U.S. exporters of some types of vegetable oils may face a decline in exports as Chinese consumers substitute palm oil for other oils. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Sunflower or safflower oil	***Trade:*** Uncertain. China imports little sunflower or safflower seed oil. U.S. exports to China have been negligible, although U.S. exports to the world totaled $265.5 million in 1998. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Rapeseed oil	***Trade:*** Uncertain. U.S. exports to China have been negligible, although U.S. exports to the world totaled $97.1 million in 1998. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Corn oil	***Trade:*** Uncertain. China imports virtually no corn oil. U.S. exports to China have been negligible, although U.S. exports to the world totaled $359.6 million. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Other:	
Cotton	***Trade:*** Market access opportunities would likely be created by a TRQ. However, the extent of any increase in U.S. exports would depend upon the role of state trading enterprises, how the TRQ is implemented, China's production policies, and the competitiveness of U.S. cotton exports. China presently has a surplus of domestic cotton. China's policies regarding cotton from Xinjiang Province may limit cotton imports. ***Investment:*** There likely would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Sugar	***Trade:*** Uncertain. The United States is a net importer of sugar. U.S. sugar producers would benefit from stability in world sugar trade that would result if China liberalized its sugar market and permitted the market to adjust production. ***Investment:*** A TRQ may possibly benefit foreign confectionary producers in China, as lower tariffs on their foreign inputs would prompt investment.

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Table ES–3—*Continued*
Summary of effects of Chinese institution of tariff–rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Other–*Continued*	
Wool and wool tops	***Trade:*** Uncertain. The United States is a net importer of wool. However, as U.S. consumption of wool drops due to a declining textile and apparel industry, U.S. wool producers expect to look toward export markets such as China and wool top producers desire to return to the Chinese market. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.

Source: Compiled by USITC staff.

Effects on the U.S. Economy of Reducing China's Tariffs

The USTR initially requested that the USITC assess the impact on the U.S. economy of a 25-percent and a 50-percent across-the-board cut in China's 1992 and 1997 tariff rates. Subsequently, the USTR requested an assessment of the specific tariff cuts offered by China in April 1999. Employing the China-WTO model, the study finds that the impact on the United States of the various tariff cuts considered is positive, but minor, in terms of growth in U.S. gross domestic product, total exports and imports, consumption, and wages (table ES-4). Accounting for growth effects leads to slightly larger changes in all of these economic variables, although they are still small. This result is consistent with the fact that U.S. trade with China accounts for less than 1 percent of U.S. GDP. Moreover, it is consistent with the fact that no changes in U.S. tariffs are required by China's accession to the WTO and thus only the indirect effects of China's changes would be noticeable in this analysis of the U.S. economy.

Table ES-4
Impact of April 1999 tariff offer on the U.S. economy

	Static effects		Static plus growth effects[1]	
Item	**$ Billions**	**% Change**	**$ Billions**	**% Change**
GDP[2]	0.3	([3])	1.7	([3])
Household welfare gain[2]	1.8	([4])	3.3	([4])
Total exports[5]	1.5	0.2	1.9	0.2
Total imports[5]	0.9	0.1	1.1	0.1
Exports to China[5]	2.4	9.0	2.7	10.1
Imports from China[5]	3.4	5.2	4.4	6.9
Terms of Trade	([4])	0.2	([4])	0.1
Skilled wages	([4])	([3])	([4])	([3])
Less skilled wages	([4])	([3])	([4])	([3])

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] These estimates reflect flexible exchange rates.
[3] Change less than 0.05 percent.
[4] Not applicable.
[5] Exports are valued at f.o.b prices. Imports are valued at c.i.f. prices. These estimates reflect fixed exchange rates.

Source: USITC staff estimates for base year 1998.

A more significant impact is found on U.S.-China trade flows. Imports into China would be stimulated by its tariff reductions; as a result, U.S. exports to China would likely be approximately 10 percent higher. U.S. imports from China are also estimated to be almost 7 percent higher as trade liberalization helps make China's export sectors more competitive. As a result of this increase, the model estimates an increase in the U.S. trade deficit with China. However, the U.S. trade balance with the world is estimated to remain unaffected as U.S. bilateral trade balances with other trading partners improve (table ES-5).

Economic impacts are more noticeable at the sectoral level, both in terms of overall sector and export growth (tables ES-6 and ES-7). The U.S. sectors most positively affected by China's trade reforms would be agriculture, paper and pulp, chemicals, rubber, and plastics, other transport equipment (including aircraft), and machinery and equipment. Sectors that are expected to be negatively affected are footwear, wearing apparel, wood products, and other light manufactures.

Exports of cotton, beverages and tobacco, and vegetable oils to China are expected to increase significantly as a result of the tariff reductions proposed by China. Wheat and other grain (e.g., corn) exports, where tariff reductions are not as large, would also increase. In terms of value of sales to China, the largest increase is estimated to be in machinery and equipment, although competition from other countries would limit U.S. exports to China in most industrial goods.

Table ES-5
Impact of April 1999 tariff offer on the direction of change in U.S. bilateral trade balance

Partner	Static effects	Static plus growth effects[1]
	— *$U.S. millions* —	
Canada	24	27
Mexico	89	83
EU	74	39
Japan	63	115
Other OECD	-21	-18
Korea	129	133
Talwan	300	329
Hong Kong	-172	477
China	-149	-586
ASEAN	126	47
South Asia	194	113
Rest of World	7	-83
World	664	674

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
Source: USITC staff estimates for base year 1998, reflecting fixed exchange rates.

Table ES-6
Impact of April 1999 tariff offer on U.S sector growth
(Percentage change)

Sector	Static effects	Static plus growth effects[1]
Wheat	0.1	0.2
Rice	-0.1	-0.1
Other grain	0.1	0.1
Oilseeds	0.5	0.7
Sugar	-0.1	-0.1
Cotton	2.2	2.4
Vegetable oils	1.4	1.5
Wool	-0.1	0.2
Beverages and tobacco	0.2	0.2
Textiles	-0.5	-0.5
Wearing apparel	-1.1	-1.2
Footwear and leather	-1.7	-1.9
Wood products	-0.1	([2])
Paper and pulp	([2])	0.1
Petroleum products	([2])	0.1
Chemicals, rubber and plastics	([2])	([2])
Mineral products	([2])	([2])
Iron and steel	([2])	([2])
Other metals	([2])	([2])
Metal products	([2])	([2])
Motor vehicles and parts	-0.1	([2])
Other transport equipment	([2])	([2])
Electronic equipment	([2])	-0.1
Other machinery and equipment	0.1	([2])
Other manufactures	-0.8	-1.0

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

Table ES-7
Impact of April 1999 tariff offer on U.S. exports to China by sector

Sector	Static effects		Static plus growth effects[1]	
	$ U.S. millions	% change	$ U.S. millions	% change
Wheat	33.0	15.5	42.8	20.8
Rice	([2])	([3])	([2])	([3])
Other grain	56.6	27.6	66.4	33.6
Oilseeds	-5.6	-7.9	-1.9	-2.9
Sugar	([2])	3.4	([2])	11.2
Cotton	230.1	59.2	252.3	67.7
Vegetable oils	288.5	145.8	294.4	154.1
Wool	([2])	3.4	([2])	7.8
Beverages and tobacco	222.9	124.5	217.7	127.3
Textiles	44.1	21.6	47.9	23.9
Wearing apparel	12.6	28.4	12.5	29.1
Footwear and leather	126.7	21.3	138.1	23.8
Wood products	4.3	1.7	10.1	4.2
Paper and pulp	84.5	11.6	102.3	14.5
Petroleum products	9.8	11.3	12.6	15.1
Chemicals, rubber and plastics	102.2	2.8	170.0	4.8
Mineral products	13.3	5.0	17.9	6.9
Iron and steel	10.0	3.0	16.4	5.1
Other metals	17.7	7.3	23.9	10.1
Metal products	62.5	12.3	70.9	14.3
Motor vehicles and parts	-592.8	-7.5	-329.2	-4.3
Other transport equipment	-107.6	-7.5	-75.2	-5.3
Electronic equipment	283.6	14.1	330.9	16.8
Other machinery and equipment	515.6	11.0	611.8	13.2
Other manufactures	205.6	114	208.4	119.1

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than $500,000.
[3] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

Effects on the U.S. Economy of China's Participation in the WTO Agreement on Textiles and Clothing

China is the world's largest single country exporter of textiles and apparel products. Almost three-quarters of U.S. sector imports from China consist of apparel, virtually all of which are covered by some type of quota. Although the majority of apparel from China continues to be of low- to medium-quality, the Chinese apparel industry is becoming more quality oriented and is beginning to produce higher-valued goods, particularly in those operations being guided by producers in Hong Kong. The potential for growth is greater in China's apparel industry because apparel production is highly labor-intensive and China has an abundance of skilled, low-cost labor. The production of textile products, such as fibers, yarns, and fabrics, is more capital intensive. China, however, is restructuring its textile industry, selling off excess and outdated capacity and modernizing production.

Under the Agreement on Textiles and Clothing (ATC), the textile and apparel quotas are being phased out over a 10-year period, with full elimination of quota restrictions on WTO members occurring on January 1, 2005. A multi-period version of the China-WTO model is employed to estimate the impact on the U.S. economy of China's inclusion in the ATC quota phase-out. The model accounts for the

differences in country quota rates of growth[2] during the phase-out period. This assessment is done at the aggregate and not at the commodity level at which quotas are applied.

The model results suggest that the overall impact on the U.S. economy of China's participation in the ATC would be positive. The economy-wide welfare gains for the United States would amount to about $2.4 billion in 2006, while GDP would increase by about $1.9 billion from the elimination of quotas in the same year. This occurs as a result of efficiency gains from factor reallocation in the U.S. economy, as well as from lower-priced goods imported into the United States.

Certain data limitations prevented the Commission from providing estimates of changes in U.S. textile and apparel production, employment, imports, and exports.[3] However, the simulation results suggest that inclusion of China in the ATC quota phase-out will likely have a small impact on U.S. imports of textiles and a larger effect on U.S. imports of apparel. Although much of this increase in China's exports of textiles and apparel comes at the expense of other suppliers to the U.S. market, the U.S. textile and apparel industries could also be affected, with U.S. apparel producers and workers experiencing the more adverse effects. Because the accelerated quota growth rates for China for many of the U.S. textile and apparel quota categories are low and the quotas are likely to constrain trade, the adverse effects are likely to be experienced after the end of the phase-out period (i.e., after December 31, 2004).

According to the model results, U.S. capital-intensive exports to China would increase by more than $300 million a year after the elimination of textile and apparel quota restrictions in 2005. This is because the expansion of China's production and trade in labor-intensive manufactures would likely result in higher demand for capital- and skill-intensive manufactured goods in China.

The model also demonstrates the impact that China's inclusion in the ATC would have on U.S. import market shares. If China's textile products continue to face quota restrictions in the U.S. market, China's U.S. market share would remain essentially unchanged (figure ES-1). The share of the U.S. textile import market captured by other restricted suppliers would expand somewhat during 1998-2004 because of the accelerated quota growth rate mechanism under the Agreement on Textiles and Clothing, and this group would continue to take a larger share of the U.S. market through 2010.

If quotas on China are eliminated, its share in the U.S. textile market would increase slightly, to about 11 percent by 2010. In the case of the U.S. apparel market, China's share would increase by about 18 percentage points if quotas are removed after December 31, 2004, resulting in China obtaining over 30 percent of the U.S. import market (figure ES-2). This increase in China's share in the U.S. import market would occur as Chinese products would displace exports from other suppliers, particularly suppliers whose exports currently are not restricted by quotas (*i.e.*, the "rest of world" group).

Effects of WTO Accession on China

As in its analysis of the impact of WTO accession on the United States, the study assesses the effect of WTO accession on China using both quantitative and qualitative approaches. The China-WTO model was used to estimate the impact of China's tariff cuts; a qualitative discussion is provided to analyze the possible impact of WTO accession on the future course of China's economic reforms.

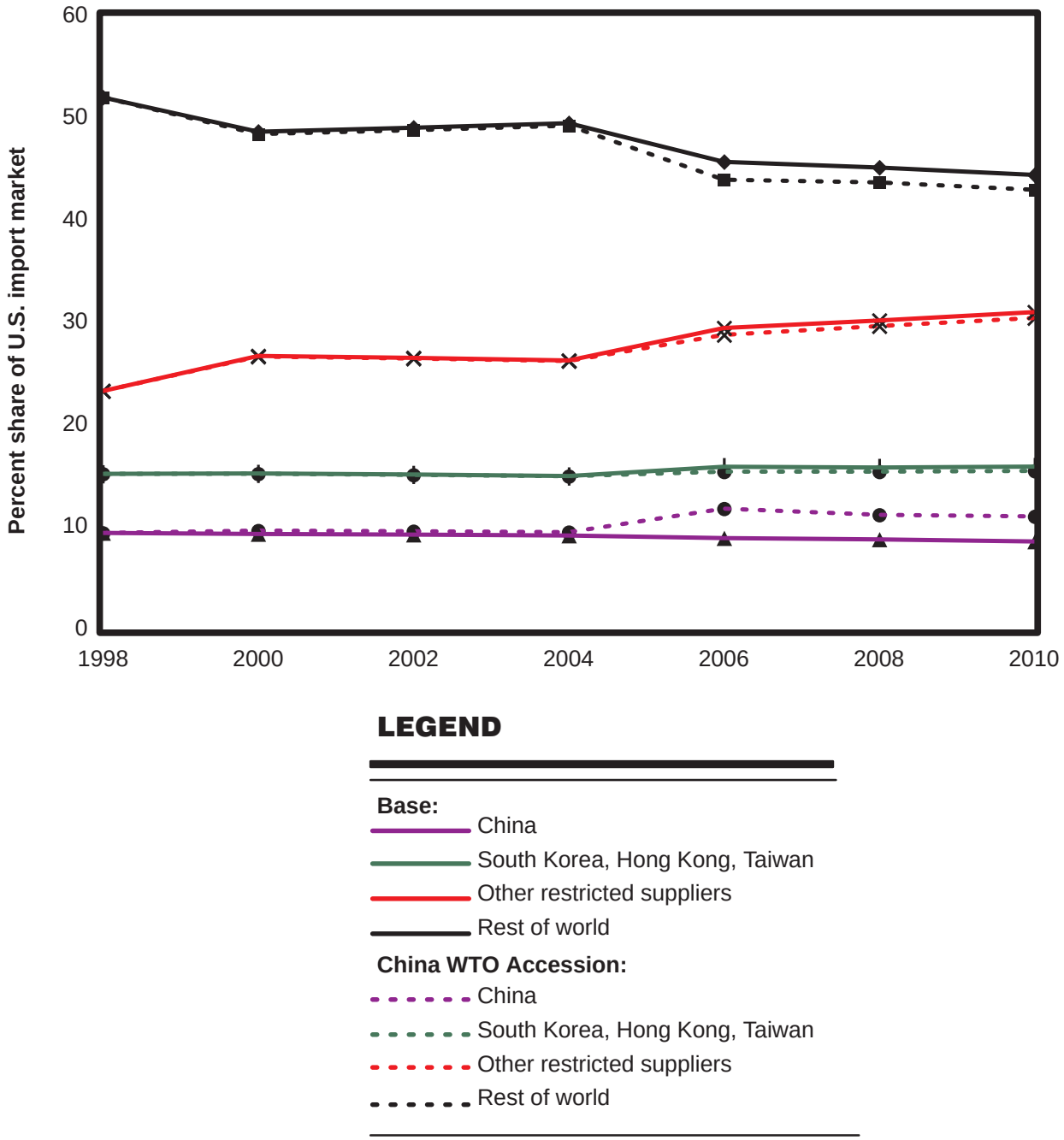
As noted earlier, China has undergone phenomenal change in recent years both in terms of GDP growth and changing trade patterns. Whether China joins the WTO or not, its growth and future trade patterns will continue to evolve due to broader economic forces. In particular, the ongoing relocation of industries among East Asian countries and China's participation in multi-country production arrangements with its East Asian neighbors are having a profound impact on China's trade patterns.

Employing the China-WTO model, the study finds that China's economy would expand by 4 percent as a result of China's April tariff 1999 offer, taking into account the growth effects of such liberalization (table ES-8). This reflects the efficiency gains from liberalization that would induce further investment in China's economy, thereby expanding production. In addition,

[2] The Agreement on Textiles and Clothing requires importing countries to increase the base quota growth rates for major supplying countries by 16 percent for WTO members on January 1, 1995; by an additional 25 percent on January 1, 1998; and by yet another 27 percent in 2002. The modeling data in this exercise were obtained from the International Textiles and Clothing Bureau in Geneva.

[3] See Additional Views of Commissioner Stephen Koplan.

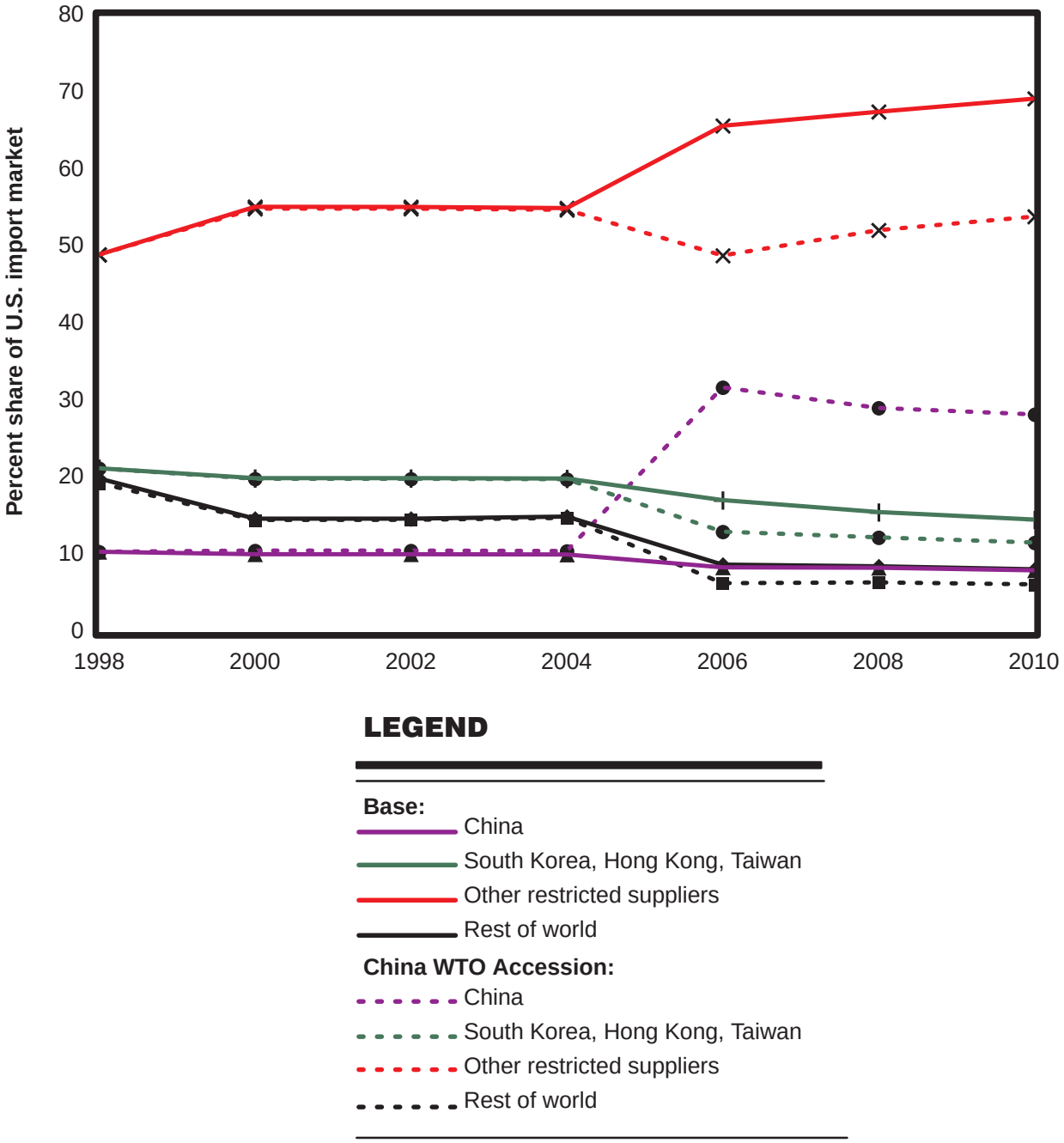
Figure ES-1
Share of U.S. imports of textiles: 1998-2010



Note.—Other restricted suppliers include three model regions: South Asia, ASEAN, and "other restricted suppliers." Rest of world includes six model regions: Canada, the EU, Mexico, Japan, other developed countries, and "all other countries."

Source: Based on USITC staff estimates.

Figure ES-2
Share of U.S. imports of apparel: 1998-2010



Note.—Other restricted suppliers include three model regions: South Asia, ASEAN, and "other restricted suppliers." Rest of world includes six model regions: Canada, the EU, Mexico, Japan, other developed countries, and "all other countries."

Source: Based on USITC staff estimates.

Table ES-8
Impact of April 1999 tariff offer on China's economy
(Percentage change)

Item	Static effects	Static plus growth effects[1]
GDP	0.9	4.1
Welfare	-0.3	2.1
Terms of trade	-2.1	-1.8
Total Exports	10.1	12.2
Total Imports	11.9	14.3

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
Source: USITC staff estimates for base year 1998.

China would benefit from increased imports of capital goods, which are expected to improve its productivity. Overall, China's exports would increase by 12 percent, again taking into account growth effects, while its imports would increase by 14 percent.

The potential impact of WTO accession on the future course of China's economic reforms is complex. In general, countries that liberalize trade are likely to adopt more open economic policies in other areas as well. WTO accession could lead to greater standardization of Chinese economic policies at the provincial and local level. Such standardization could be beneficial to U.S. firms in China, but could inhibit local-level experimentation with new reforms. China's state-owned enterprises, which enjoy substantial political influence and privilege, are currently weak financially, and would come under intensified pressure from international competition under WTO accession.

CHAPTER 1
Introduction

Purpose and Scope of the Report

The United States Trade Representative (USTR) requested the International Trade Commission (USITC, or the Commission) to assess the probable economic effects on the United States of China's accession to the World Trade Organization (WTO). The USTR requested that the analysis include an assessment of the April 1999 tariff offer, alternative tariff reduction scenarios, as well as the likely effects from China's offer to liberalize market access and remove non-tariff barriers (NTBs). This study does not include, for example, analysis of many aspects of agriculture, sanitary regulations, technical standards, trade-related investment measures, antidumping or subsidies measures, rules of origin, preshipment inspection, or safeguards, all of which are WTO agreements that any applicant for accession must implement.

The Commission initiated work on this fact-finding investigation, under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), following receipt of a letter of request from the U.S. Trade Representative (USTR), on December 18, 1998.[1] On May 5, 1999, the USTR requested an expansion in the scope of the investigation to include an analysis applicable to China's tariff offer made in April 1999.[2] On June 16, 1999, the USTR requested amplification of the analysis and quantification of the effects on the U.S. economy of the full range of market access commitments (e.g., from telecommunications and insurance to elimination of non-tariff measures) in China's April 1999 offer with particular emphasis on the effects of the removal of restrictions on trading rights and the liberalization of distribution services.[3] The Commission was able to quantitatively assess the impact of the tariff commitments contained in the April 1999 offer as well as the alternative tariff reduction scenarios. However, the lack of necessary data precluded a quantitative assessment of the likely effects of the liberalization of NTBs specified in the April 1999 offer. Therefore, this study includes no quantitative estimates of the changes arising from NTB liberalization as specified in the April 1999 offer. Rather, it provides a description of the expected results of liberalizing these barriers. The study does provide, to the extent data were available, a quantitative assessment of the removal of selected NTBs when the impact of the alternative tariff reduction (across-the-board 50 percent cut) scenario is estimated.

The USTR requested that the Commission prepare a report that provides a comparative static analysis based on actual trade and related economic variables from a recent representative period, and which reflects, to the extent possible, how those trade and related economic variables would have appeared in that same period had China been a member of the WTO. The USTR asked that the analysis include all adjustments that would result from China's lowering and binding its tariffs, accepting WTO disciplines on NTBs, and fully complying with all other WTO obligations.

Specifically, the USTR requested that the Commission's comparative static analysis report on the following standard U.S. economic variables: aggregate exports and imports with China and the world; employment; average labor productivity; average labor compensation; gross domestic product; changes in U.S. trade, investment, output, and employment at the sectoral level; and changes in consumer prices of various affected goods and services. In the December 18, 1998 letter, the USTR requested that the Commission assess the effects of both a 25 percent and a 50 percent across-the-board cut in Chinese tariff rates. Each tariff reduction is taken in turn from two sets of base rates: (1) China's 1992 tariff rates and (2) China's 1997 tariff rates. As, indicated above, the May 5, 1999 letter requested an extension of the comparative static analysis incorporating the tariff offer made by China in April 1999.

[1] See appendix A for the request letters and appendix B and C, respectively for the Federal Register Notice and the list of hearing participants.

[2] Appendix A.

[3] Ibid.

In the December 18, 1998 letter the USTR also asked the Commission to assess changes in U.S. trade, U.S. foreign investment, and the U.S. domestic economy resulting from certain non-tariff aspects of China's possible accession to the WTO. The USTR asked that such an analysis of NTBs be quantitative to the extent possible, or qualitative where either data or methodological limitations precluded quantitative estimates. As indicated above, in the June 16, 1999 letter, the USTR requested an amplification of the analysis of the NTBs to reflect the offer made by China in April 1999.

Specifically, the Commission has been asked to assess the following non-tariff aspects of China's possible WTO accession agreement:

- The elimination of China's WTO-inconsistent licensing, quota, and tendering requirements;

- A comparison of the current trade situation with China to the institution of tariff-rate quotas as part of an accession package on the following agricultural products: corn, cotton, oilseeds, rice, sugar, vegetable oils, wheat, wool, and wool tops;

- The elimination of China's trade-related investment measures such as export performance requirements, local content requirements, and trade and foreign exchange balancing;

- Market openings in the following Chinese service sectors: distribution (including commission agents, wholesaling, retailing, and franchising); financial services (including insurance); telecommunications (including basic and value-added services); audiovisual services (motion picture distribution and sound recording distribution); tourism and travel; land-based air courier services; business services including professional services, consultancy and advertising; and business services auxiliary to distribution such as rental and leasing of equipment, maintenance and repair, packaging, storage, and warehousing;

- An analysis of the effect of China's compliance with WTO rules on or affecting transparency, national treatment, judicial review, state trading, offsets, and protection and transfer of technology;

- The effect of the removal of U.S. quantitative restrictions on textile and apparel imports on all WTO members, relative to the inclusion of China, in the context of the U.S. bilateral agreements on textiles and apparel with China; and

- Any other change in the conditions of trade with China that is a result of accession and likely to materially affect U.S. trade and investment flows.

In the December 18, 1998 letter, the USTR asked the Commission also to provide an overview of China's trade and investment patterns, as well as the effect of China's accession on its patterns of trade, economic growth, and internal economic reforms. The quantitative assessment of China's accession on its pattern of trade and economic growth reflects the impact of the April 1999 tariff offer only and does not include the impact of liberalization of China's non-tariff barriers on these economic variables.

Approach

The Commission has taken a multi-part approach in response to the USTR's request. When numerical information is available for China's rates of protection by individual sector, quantitative estimates are provided using a formal economic model. When this information is not available, a qualitative analysis of the likely effects of China's WTO accession is provided. Data on levels of protection for trade in services are not available. The full economy-wide benefits to the United States suggested by the quantitative approach are therefore, understated because these results do not account for China's liberalization of trade in these sectors. A third approach uses quantitative and qualitative analyses where there are incomplete protection data for a sector. In some sectors tariffs and NTBs restrict trade; however, only tariff data are complete. For example, tariffs are available for agricultural commodities but accurate measurement of the trade impediments arising from state trading enterprises is problematic. In that case, input from industry sources is used to assess the likely economic impact of liberalization.

To the extent data are available on NTBs, a quantitative assessment has been made on the likely effects of removal of these trade barriers; but the assessment for most of the NTBs is qualitative. The primary source of quantitative information on China's NTBs for this study is the Institute for International

Economics (IIE).[4] The IIE has calculated tariff equivalents (TEs) for China's NTBs applicable to imports of 25 of China's most highly protected agricultural and manufactured products.[5] These 25 products accounted for about 30 percent of all Chinese imports in 1994. The estimated TEs, along with tariff data, were incorporated in the formal model framework to estimate the incremental impact of removing these selected NTBs on the U.S. economy beyond the 50 percent cut in 1997 tariff levels. As shown in chapter 7, the incremental impact of removing NTBs applicable to these 25 Chinese products would have increased benefits to the U.S. economy significantly in terms of higher U. S. gross domestic product (GDP), economic welfare, and exports. The lack of necessary data on TEs precluded the quantification of the impact on the U.S. economy of removal of Chinese NTBs as specified in the April 1999 offer thereby, understating the benefits to the U.S. economy from the elimination of these non-tariff barriers.[6]

The Commission also estimates the impact on the U.S. economy of removing U.S. quotas on textile and apparel imports on all WTO members, relative to the inclusion of China, in the context of the U.S. bilateral agreement with China. The data on quota growth rates for WTO countries that were used for estimating the impact of the phasing out the textile and apparel quotas as specified by the ATC were calculated from data provided by the International Textiles and Clothing Bureau (ITCB).[7]

Organization of the Report

The remainder of this chapter discusses the quantitative approach taken by the Commission to assess the impact on the U.S. economy of China's April 1999 tariff offer, alternative Chinese tariff reduction scenarios, the removal of selected NTBs, and the inclusion of China in the phasing out of textile and apparel quotas as specified by the ATC.

Chapter 2 provides a profile of China's trade, investment, and trade barriers during the period 1990-97. Chapter 3 describes the Chinese non-tariff barriers (such as state trading, licensing, quotas, and tendering requirements among others) as well as a discussion of the effects on the U.S. economy of the April 1999 offer related to these trade barriers. Chapter 4 presents a qualitative analysis of the effects on the U.S. economy of instituting Chinese tariff-rate quotas on selected agricultural products. Chapter 5 provides a discussion of the effects of the April 1999 Chinese offer for certain Chinese service sector market openings. The assessments in chapters 3 through 5 are based on input from industry representatives.

Chapter 6 analyzes the likely effects on China of its WTO accession, using the China-WTO model, and also discusses the potential effects of accession on China's economic reforms. Chapter 7 presents the effects on the U.S. economy of reductions and removal of Chinese tariffs and certain quatifiable NTBs, respectively, using the China-WTO model. The likely impact of the recent tariff offer made by China in April 1999 on China and the United States is discussed in chapters 6 and 7, respectively.

Finally, chapter 8 examines the effect of removing U.S. quantitative restrictions on textile and apparel imports on all WTO members, relative to the accession of China, in the context of the U.S. bilateral agreement on textiles and apparel with China. A multi-period version of the China-WTO model is employed to estimate the impact on the U.S. economy of phasing out the textile and apparel quotas as specified by the ATC.

Overview of the Quantitative Approach

The USTR asked for an assessment of a wide range of impacts on the U.S. economy of China joining the WTO: these range from the impact on selected U.S. agricultural commodities to economy-wide effects on GDP and aggregate trade. Trade policy reforms, for the purpose of the analysis presented in the quantitative part of this study, include the tariff reductions shown in China's April 1999 offer, as well as an "across-the-board cut in Chinese MFN tariff rates." An analysis of such broad-based tariff reforms requires a model with comprehensive coverage of all economic activities. Estimating the effects on the U.S. economy

[4] Zhang Shuguang, Zhang Yansheng, and Wan Zhongxin, *Measuring the Cost of Protection in China*, (Washington DC: IIE, November 1998), Institute for International Economics. See appendix E.

[5] A tariff equivalent of a quota is calculated as the tariff which, if applied to an import, would have the same effect in restricting imports as the quota which is being applied. see A. Deardorff and R. Stern, "Measurement of Non-Tariff Barriers," OECD, OCDE/GD(97) 129 (OECD: Paris, 1997).

[6] The April 1999 offer covered various NTBs that potentially affect all traded sectors (both merchandise and services). In some instances, this liberalization is scheduled to be staged over time. In addition, the offer does not specify total elimination of all NTBs. Consequently, the existing estimated TEs could not be readily adapted to capture the specific changes contained in the April 1999 offer.

[7] The ITCB, located in Geneva, is an international organization established in 1985 by developing country exporters of textiles and clothing that were parties to the Multifiber Arrangement (MFA).

from China's accession to the WTO is complex because it involves all industrial sectors and many countries. There are a number of factors that will affect the U.S. economy as a result of China's accession to the WTO. The United States competes in China's market with other supplying countries that would also have access to a more open market after China enters the WTO. How the U.S. economy will be affected depends partly on the economic response and competitiveness of all other countries trading with China. How the effects of China's WTO accession are distributed across countries will depend on the size of existing bilateral trade and the corresponding level of protection. Therefore, a model with bilateral trade not only for China and the United States, but also for other countries, is most appropriate to assess the likely effects on the U.S. economy of China's WTO accession and such a model is employed in this study.

The China-WTO Model

A multi-country model with economy-wide coverage of merchandise and service sectors, i.e., a global computable general equilibrium (CGE) model, is employed in this study. This model is the China-WTO model.[8] This model, described briefly here, has been applied extensively in research related to analyzing various aspects of China's accession to the WTO.[9] Additional information on the specification of the China-WTO model can be found in Appendix D.

As with other global CGE models, the China-WTO model is structured to estimate the impact of various types of trade policy changes. The model provides extensive detail on various commodity and factor prices across sectors and regions. It follows the standard assumptions as other computable general equilibrium models regarding perfect competition, constant returns to scale, inter-sector factor mobility, and national product differentiation in traded goods. Accounting constraints are imposed both at the macroeconomic and microeconomic level to ensure consistency in market adjustments caused by a given policy change. When industry costs exceed revenues as a result of a policy change, contraction occurs until profitability is restored, or, if excess profits accumulate, expansion of the industry occurs until profitability returns to a competitive level. It is assumed that firms will seek the least costly means of producing a given level of output. The model allows for substitution between inputs which is consistent with profit maximization assumptions. Inputs can be purchased from the domestic market or from foreign sources. Thus, when tariffs on imports are cut, firms substitute domestic inputs in favor of foreign-produced inputs in order to maximize profits. Firms pay factors of production in the form of wages to labor and returns to owners of capital. This provides the household with income which is used for consumption and savings. The household is constrained by the level of income it receives from firms. Consistent with standard economic assumptions, it is assumed that consumers seek the highest level of consumption and saving for a given level of income. The model allows households to substitute between goods to satisfy this objective. For a given policy change, markets adjust according to supply and demand conditions determined by the interaction between firms and consumers.

The China-WTO model has the flexibility to address several distinct policy implementation scenarios. The model can be used as a single-period comparative static model where the base period does not change or it can also be used as a multi-period model where the base is updated from year to year at the same time policies are implemented. Both versions of the model are used in this study to address specific policy questions posed by the USTR. The

[8] For the purpose of this analysis, the world economy is divided into 14 regions to reflect China's key trading partners. These are: the United States; Canada; Mexico; the European Union (EU); Japan; South Korea; Taiwan; Hong Kong; China; ASEAN (Singapore, Malaysia, Thailand, Philippines, and Indonesia); South Asia (India, Bangladesh, Nepal, Pakistan, and Sri Lanka); other OECD countries (Australia, New Zealand, and the European Free Trade (EFTA) countries); other Multi-fiber Arrangement (MFA) quota-restricted suppliers (Brazil, Turkey, and Central America, and the Caribbean); and the rest of the world. Production and trade flows for each model region are presented for 40 sectors which are: paddy rice; wheat; other grains; vegetables, fruits, and nuts; oil seeds; raw sugar; plant-based fibers; other crops; bovine cattle, sheep, goats, and horses; other livestock and raw milk; wool and silk-worm cocoons; forestry; fisheries; mining; meat products (beef, sheep, goats, and horse); other meat products; vegetable oils and fats; dairy products; processed rice; sugar; other food products; beverages and tobacco; textiles; apparel; leather products; wood products; paper products; petroleum and coal; chemicals, rubber, and plastics; mineral products; iron and steel; other metals; metal products; motor vehicles and parts; other transport equipment; electronic equipment; other machinery; other manufactures; traded services; and non-traded services. These sectors are described more fully in appendix D.

[9] For recent applications of this model, see Zhi Wang, "Impact of China's WTO Entry on the World Labor-Intensive Exports Market: A Recursive Dynamic CGE Analysis," *The World Economy*, 22(3), May 1999; "China

[9]–*Continued*
and Taiwan Accession to the World Trade Organization: Implications for U.S. Agriculture and Trade," *Agricultural Economics*, vol. 17, pp. 239-264, 1997; "The Impact of China and Taiwan Joining the World Trade Organization on U.S. and World Agricultural Trade: A Computable General Equilibrium Analysis," Technical Bulletin No. 1858, U.S. Department of Agriculture, Economic Research Service, Washington DC, 1997.

single-period version of the model is used to estimate the comparative static results of tariff reductions as well as removal of certain NTBs. A comparative-static analysis involves a comparison between two economic states: with the policy change and without the policy change. That is, how would the U.S. economy look in a given period if China had already joined the WTO compared with the actual state of the economy in the same period. The purpose of using a formal model is to simulate this alternative state in a consistent manner by allowing markets to adjust to the new policy environment. Because other policies and factors such as the size and composition of the labor force are held constant, the outcome after full adjustment cannot be viewed as a projection into the future; rather, it is a counterfactual scenario. This is a common means of performing policy analysis. The usefulness of a comparative static analysis is that simulated changes in economic variables can be attributed only to relevant policy changes.

Holding all factors of production constant yields static effects which stem from more efficient use of existing resources. Greater efficiency can be achieved through reallocation, as factors of production move from less productive activities to more productive activities. Economic gains associated with reallocation are called *static allocative efficiency* gains. They are static gains because there is no change in the size of the labor force or stock of capital in the economy. In considering China's WTO accession, some of the efficiency gains would include labor migration into more productive sectors of the Chinese economy. This effect would be captured in all static models. However, there are secondary effects beyond static allocative efficiency effects that can result from trade liberalization. These are known as growth effects[10] since they augment factors of production induced by policies changes. For growth to occur from policy changes, factors of production such as land, labor, and capital must increase.[11] Trade liberalization can increase income and savings which then stimulate investment activity. The China-WTO model takes into account new investment that is added to the existing capital stock, providing additional productive capacity for the economy.[12] The growth in total factor productivity, which reflects growth in productivity of land, labor, and capital, is related to technology transfer. In the China-WTO model, technology is embodied in imports of technology-intensive goods. Productivity growth depends on the volume of technology-intensive imports used as intermediate inputs in the production process of other goods and services which can then be exported.[13] The single-period model estimates reported in the study include the full adjustment of China's tariff reduction; that is, they reflect growth effects. Ignoring these growth effects may bias the estimated effects.

The impact on the U.S. economy of phasing out the textile and apparel quotas as specified by the WTO Agreement on Textiles and Clothing (ATC) is estimated by employing a multi-period model. In this version of the model, factors of production and GDP are simultaneously updated over time along with policy changes. This allows for simulations of economic variables (such as exports, imports, and wages) over a real time path. Results are then presented along a time line rather than as an alternative state of the economy, as is done using the single period comparative static model.

As with other models, it is possible to implement alternative macroeconomic assumptions. Alternative scenarios for different exchange rate policies can be used in assessing the effects on the U.S. economy from China's accession into the WTO. This is important because how China's current trade surplus will adjust as a result of a more open trade policy will depend to some degree on China's exchange rate policy. In this study, simulations are run with both the fixed and flexible exchange rate scenarios depending on the variables analyzed. Macroeconomic variables such as

[10] The term "growth effects" for the purposes of this study refers only to the effect on an economy of growth in production capacity and total factor productivity (i.e., growth in the productivity of land, labor, and capital stock) that occurs as a result of trade policy changes. These policy-induced effects are described more fully below and are distinct from capital accumulation, productivity growth, and labor and human capital growth that would occur regardless of trade liberalization. These growth effects also referred to as dynamic effects are secondary effects beyond the static efficiency effects. For a more general discussion on the growth or dynamic effects associated with trade liberalization see ITC publication 3069, "The Dynamic effects of Trade Liberalization : An Empirical Analysis," Investigation No. 332-375, October 1997.

[11] For further discussion, see "Special Issue: Trade Liberalization and Productivity Growth in Asia," Institute of Developing Economies, vol. XXXII, No. 4, December 1994.

[12] This treatment of the growth in capital is described in Joseph Francois, Bradley McDonald and Hakan Nordstrom (1995) "Assessing the Uruguay Round," in Martin and Winters (eds). *The Uruguay Round and the Developing Economies,* World Bank Discussion Paper 307, The World Bank, Washington, DC. See appendix D for details.

[13] The increased productivity experienced by developing countries due to increased imports of capital equipment has been documented empirically. See Xiaoming Zhang and Heng-fu Zou, "Foreign Technology Imports and Economic Growth in Developing Countries," *World Bank Policy Research Working Paper* No. 1412 (Washington DC: World Bank, September 1995), and Hadi Salehi Esfahani, "Exports, Imports, and Economic Growth in Semi-Industrialized Countries," *Journal of Development Economics,* vol. 35 (1991), pp. 93-116.

aggregate trade balances are influenced by macroeconomic policies. By maintaining a flexible exchange rate regime, a country can affect aggregate trade thereby counteracting the effect of tariff policy changes on the aggregate trade balance. Measuring the impact on aggregate trade from trade liberalization using a flexible exchange rate rule is therefore not meaningful for the purposes of the analysis of this study. To assess the impact of trade liberalization on aggregate trade requires a macro environment where exchange rates are fixed. This is how aggregate trade (total exports and total imports for the United States and China) is estimated using the China-WTO model. However, using fixed exchange rates and allowing trade balances to vary prevents the valid measurement of other variables.[14] To provide valid estimates of all variables requested by USTR it is necessary to use both fixed and flexible exchange rates in the model. Results presented in this report refer to the flexible exchange rate simulations, except for the estimates representing total exports and total imports and trade balances.

In the December 18, 1998 request letter, the USTR also asked the Commission to assess the effects of China's WTO accession on the distribution of household income in the United States. The current structure of the model however, does not fully permit this type of assessment. The model does not distinguish between households of different incomes within a region. This limits the ability to examine the effects on distribution of household income in the United States from China's accession into the WTO. It is, however, possible to report on changes in wage compensation for skilled and unskilled labor in the U.S. economy. Such changes in labor compensation should provide an indication of the effects on the distribution of income in the United States.

In general, global models do not provide different treatment of market structures by individual country. The U.S. economy could be characterized as having more flexible markets than China. Although markets have become less rigid in China since reforms began in 1978, there still remain inter-regional migration restrictions, controls on wages and interest rates, and trade restrictions (see chapters 3, 4, and 5). The China-WTO model assumes mobility of factors of production and well-functioning markets. For example, the model assumes that factors of production, such as labor, can be reallocated relatively easily and without cost from one sector to another. Thus, the results do not reflect the short-run impact associated with China's WTO accession, but rather they illustrate the potential adjustments that could occur over the long term.

Another limitation stems from a bias found in virtually any quantitative analysis of economic data that arises from the process of data aggregation. In particular, international trade is carried on in thousands of different products and services. For data collection and reporting purposes, trade information is collapsed into some 6,000 tariff line items for the United States. For most analytical purposes that represents far too much detail to be computationally tractable. Furthermore, analyses and comparisons of data collected from different countries require that data be aggregated into categories that are generally comparable from one country to another. This reduction and aggregation introduces two general sources of bias into a modeling exercise.

The first source of bias involves the calculation of tariffs for aggregated product categories. Typically (as in this study), the total tariff revenue for an aggregation of commodities is divided by the total trade in the aggregation to derive an ad valorem equivalent average tariff for the aggregation, which is essentially equivalent to weighting the individual tariffs by their trade volumes. This procedure tends to mask the importance of those products within the aggregate that have particularly high tariffs ("tariff spikes"), 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 correlation between the levels of these tariffs and the price responsiveness of final demand for the goods in question.[15] Modeling the reduction of an aggregate average tariff would thus tend 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 country's domestic product in that category. However, when the price of an import falls,

[14] Changes in the trade balances must be offset by savings and international investment. Greater savings for foreign investment reduces domestic consumption making consumption an inappropriate indicator of welfare. When consumption is used to measure welfare it becomes an invalid measure when trade balances are allowed to change. For further explanation on trade balances and welfare, see http://www.agecon.purdue.edu/gtap/faq

[15] See James E. Anderson and J. Peter Neary, "Measuring the Restrictiveness of Trade Policy," *World Bank Economic Review*, 8(2), May 1994, pp. 151-169.

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 order to reduce the effect of this type of aggregation bias the model data are analyzed at the greatest level of disaggregation possible.

Policy Changes Modeled

The China-WTO model produces estimates of the likely effects on the U.S. economy of China's April 1999 tariff offer, but because of data limitations does not estimate the effects of other policy or procedural changes expected or required as a result of WTO accession. Table 1-1 provides estimates of the tariff cuts for selected aggregate sectors. * * *. The impact of these Chinese tariff reductions on the U.S. economy are estimated using the single-period version of the model. These impacts are measured in terms of the static effects both with and without growth effects, such as the productivity growth and capital accumulation associated with trade liberalization. The results are reported for standard aggregate economic variables as well as for sectoral level variables. Similarly, this is done to estimate the impact of a 25 percent and a 50 percent across- the-board reductions in Chinese tariff rates plus the effect of the removal of measurable NTBs in the 50 percent case. The measured NTBs occur in 25 product sectors which accounted for 30 percent of China's 1994 imports. The base year for the single period results is 1998.

Finally, estimates are provided on a multi-period basis on the impact on the U.S. economy of removing quotas on textile and apparel imports on all WTO members, relative to the inclusion of China, in the context of the U.S. bilateral agreement with China. The estimates for the ATC phase-out are provided for the 2000-10 period.

Data Sources

Many sources of information were consulted for this analysis. Data on China's trade and investment patterns were obtained from the U.S. Department of Commerce, United Nations, International Monetary Fund, the World Trade Analyzer database of Statistics Canada, the U.S.-China Business Council, and the China Statistical Yearbook produced by China's State Statistical Bureau.

The data for China's most-favored-nation (MFN) tariff rates on industrial products for 1992 and 1997 as well as the tariff offer made by China in April 1999 were obtained from the U.S. Department of Commerce. Tariff data for agricultural commodities for these respective periods were obtained from the U.S. Department of Agriculture. Data on tariff equivalents applicable to selected NTBs in China are from the IIE publication mentioned above and are provided in table E-1 in appendix E. The data on the existing economic structure, trade flows, and behavioral parameters–such as elasticities of demand,

Table 1-1
Tariff rate cuts from China's April 1999 offer for selected aggregate sectors

	Current MFN base rate	April 1999 Bound rate	% cut
Wheat	80.0	***	***
Oilseeds	2.4	***	***
Cotton	76.0	***	***
Vegetable oils	51.4	***	***
Beverage and tobacco	61.5	***	***
Chemicals, rubber and plastics	10.4	***	***
Paper and pulp products	11.5	***	***
Motor vehicle and parts	27.6	***	***
Electronic equipment	10.9	***	***
Other machinery and equipment	13.4	***	***
Light manufactures	27.3	***	***
Trade-weighted average	17.9	***	***

Rates are based on a trade-weighted average using 1997 China's trade data. Bound rate is to be fully implemented by ***.
Source: Department of Commerce.

supply, and substitution employed in the China-WTO model–are from the Global Trade Analysis Project (GTAP) database.[16] The GTAP database has coverage of all regions in the world for all goods and services on a consistent basis. It links national accounts data of individual countries with actual bilateral sector-specific trade flows. The data obtained from the GTAP database are for 1995 and are adjusted to conduct the comparative static analysis for the base year 1998 (see appendix D).

The actual data used to adjust the 1995 database to create a 1998 database consist of macroeconomic data for total trade, GDP, government spending, and investment. The model uses these data to update the complete database such that all macroeconomic and microeconomic constraints are satisfied. This is how the database remains in a "balanced" state to facilitate simulations of policy shocks such as tariff cuts. There are however, several components of the database for which actual data are not available. For example, a complete global bilateral trade database is not available. Therefore, bilateral trade data are endogenously determined when the database is updated. As a result, the updated database contains "projected" trade flows rather than actual trade flows.

The information on Chinese non-tariff barriers and trade-related investment measures was obtained from a review of economic literature and from USITC staff contacts with the U.S. private sector. A public hearing for this investigation was held on February 23, 1999. Testimony from the hearing, pre- and post-hearing statements, and written submissions in response to the *Federal Register* notice for this investigation also provided useful information on Chinese non-tariff barriers, trade-related investment measures, and service sectors, and was integrated into this report.[17] Industry representatives and trade associations were recontacted to obtain input related to the April 1999 offer with respect to the non-tariff barriers and market access issues.

[16] The GTAP consists of a world-wide consortium of organizations which share a common global database for use in computable general equilibrium analysis. The database is completely documented in R.A. McDougall, A. Elbehri, and T.P.Truong (1998). "Global Trade Assistance and Protection: The GTAP 4 Database," Center for Global Trade Analysis, Purdue University.

[17] A copy of that *Federal Register* notice appears in Appendix B of this report. A list of individuals who appeared at the hearing or who made written submissions in response to the *Federal Register* notice appears in Appendix C.

CHAPTER 2
An Overview of China's Trade and Investment Patterns

Introduction

This chapter presents information on China's patterns of international trade and foreign direct investment, both in general and with regard to transactions with the United States. The chapter opens with a brief analysis of macroeconomic trends in China, moves on to a discussion of data on Chinese trade and direct investment, and concludes with a brief overview of some of China's trade and investment policies. More detailed analysis of China's policies, particularly as they affect U.S. exporters and investors, can be found in the next three chapters of this report.

Economic Trends

This section discusses recent macroeconomic trends in China, particularly with respect to economic growth and inflation; China's foreign trade with the world as a whole and with the United States in particular; China's balance of payments; and patterns of inbound foreign investment in China.

GDP and Economic Growth

China's real gross domestic product (GDP) has grown at a very rapid rate in recent years (table 2-1). According to Chinese data, the compounded annual growth rate of real GDP exceeded 11 percent per annum over the period 1990-97. Growth decelerated in 1998, at a rate estimated to be less than 8 percent. China's economic growth may well be unprecedented; no other economy so large is known to have grown so fast for so long. The World Bank's *World Development Indicators* reports long-term annual growth rates for 1965-96 for over 100 countries. Even though this 32-year period includes 13 years before the economic reforms began in 1978, China's annual growth rate of 8.5 percent over the period exceeded that of every country in the world except Botswana and South Korea. China's growth exceeds South Korea's when measured over the reform period alone.

Given China's population (the world's largest, with over 1.2 billion people in 1997), and its recent high rates of economic growth, there has been debate about the prospect that China may become the world's largest economy early in the 21st century. This debate is complicated by issues in measuring China's GDP.[1] Because the cost of living in China is so low, the size of China's economy as measured on a purchasing-power-parity basis is much larger than when measured on an exchange rate basis.[2] The World Bank reports China's 1997 per capita income on an exchange rate basis to be $860 per year. This gives a total GDP of nearly $1.1 trillion, the world's seventh largest, smaller than the GDP of Italy and about 14 percent the size of U.S. GDP. But on a purchasing-power-parity basis, China's per capita income is reported at $3,570 and its total GDP at nearly $4.4 trillion. On a purchasing-power-parity basis, China is the world's second largest economy, about 57 percent the size of the U.S. economy.[3]

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[1] For discussions of issues in measuring the size of China's economy, see Nicholas R. Lardy, *China in the World Economy* (Washington, DC: Institute for International Economics, 1994), pp. 14-18; Ren Ruoen and Chen Kai, "China's GDP in U.S. Dollars Based on Purchasing Power Parity," *World Bank Policy Research Working Papers* No. 1415 (Washington, DC: World Bank, January 1995); and Angus Maddison, *Chinese Economic Performance in the Long Run* (Paris: OECD Development Centre, 1998).

[2] International comparisons of output or income on an exchange rate basis consider comparable measures (e.g., of GDP) in different countries, as measured in local currency, which are then converted to a common currency (usually the U.S. dollar) based on prevailing exchange rates. Such comparisons do not take into account the fact that dollars, when converted into local currency and spent abroad, can in fact buy significantly more in some countries than in others. International comparisons based on purchasing power parity attempt to correct for such differences in absolute local prices, in order to give measures which compare actual volumes of goods produced or consumed in different countries.

[3] These figures, drawn from the published volume of the World Bank's *World Development Indicators 1999* differ somewhat from those in table 2-1 for the following reasons. Table 2-1 uses market exchange rates drawn from the IMF's *International Financial Statistics*, while World Bank comparisons based on exchange rates use the World Bank's Atlas method, which smooths fluctuations in the

Table 2-1
China: Basic macroeconomic indicators, 1992-98

	1992	1993	1994	1995	1996	1997	1998
	Billions of current renminbi (RMB)						
Gross domestic product (GDP)	2,663.9	3,463.4	4,675.9	5,847.8	6,788.5	7,477.2	7,974.8
Government budget deficit	25.9	29.3	57.4	58.2	53.0	58.0	96.0
Money and quasi-money	2,432.7	3,474.0	4,692.0	6,074.4	7,609.5	9,186.8	10,556.0
	Billions of current U.S. dollars, using market exchange rates (RMB)						
Gross domestic product (GDP)	483.5	601.3	542.4	700.3	816.9	902.0	963.1
Government budget deficit	4.7	5.1	6.7	7.0	6.4	7.0	11.6
Money and quasi-money	441.5	603.1	544.3	727.5	915.7	1,108.2	1,274.9
	Billions of current U.S. dollars, using purchasing power parity exchange rates						
Gross domestic product (GDP)	2,378.5	2,770.7	3,224.8	3,701.1	4,089.5	4,477.4	4,862.7
Government budget deficit	23.1	23.4	39.6	36.8	31.9	34.7	58.5
Money and quasi-money	2,172.1	2,779.2	3,235.9	3,844.6	4,584.0	5,501.1	6,436.6
	Annual percentage change						
Real GDP growth	14.2	13.5	11.8	10.2	9.7	8.8	7.8
Inflation (consumer prices)	6.4	14.7	24.1	17.1	8.3	2.8	-0.8
	Current renminbi (RMB)						
Urban per capita income	2,026.6	2,577.4	3,496.2	4,283.0	4,838.9	5,160.3	5,457.0
Rural per capita income	784.0	921.6	1,221.0	1,577.7	1,926.1	2,090.1	2,150.0
	Current U.S. dollars, using market exchange rates						
Urban per capita income	367.8	447.5	405.6	512.9	582.3	622.5	659.1
Rural per capita income	142.3	160.0	141.6	188.9	231.8	252.1	259.7
	Current U.S. dollars, using purchasing power parity exchange rates						
Urban per capita income	1,809.5	2,061.9	2,411.2	2,710.8	2,915.0	3,090.0	3,327.4
Rural per capita income	700.0	737.3	842.1	998.5	1,160.3	1,251.6	1,311.0
	RMB/dollar						
Exchange rate (market)	5.51	5.76	8.62	8.35	8.31	8.29	8.28
Exchange rate (purchasing power parity)	1.12	1.25	1.45	1.58	1.66	1.67	1.64
	Millions						
Population	1,171.7	1,185.2	1,198.5	1,211.2	1,223.9	1,236.3	n.a.

Sources: State Statistical Bureau, People's Republic of China, *China Statistical Yearbook*; International Monetary Fund, *International Financial Statistics,* World Bank, *World Development Indicators*, U.S.-China Business Council, and USITC staff calculations.

Likewise, claims about whether China's economy is relatively "open" or "closed" based on the ratio of trade to GDP vary widely with the measure of GDP used. China's ratio of imports to GDP is about 15 percent when GDP is measured on an exchange-rate basis but only around 3 to 4 percent if measured on a purchasing-power-parity basis.

By international standards, China's overall income inequality is relatively low, due in part to its historically centrally planned economy legacy and to the early success of agriculture in the reform period. In the current period of rapid economic growth, income inequality has increased markedly between rural and urban Chinese, and between the inland and coastal provinces. According to official Chinese statistics, the ratio of urban to rural per capita income was 2.47 in 1997, up from 2.18 in 1991 (derived from table 2-1).

Evidence of Recent Slowdown in Chinese Growth

As table 2-1 shows, China's very rapid recent rate of GDP growth has decelerated steadily since the early 1990s. While complete data are not yet available for 1998 or 1999, available indicators suggest that the slowdown in Chinese growth has become more marked recently. This slowdown is associated both with increasingly widespread bankruptcies in China's financial institutions and state-owned enterprises (see Appendix F) and with difficulties in exporting due to the general economic slowdown in East Asia. Both Chinese exports and actually utilized foreign direct investment failed to grow in 1998 after years of rapid increases. Actually utilized foreign direct investment in China is expected to drop to around $30 to $35 billion in 1999 — the lowest yearly amount since 1993 — from $45.5 billion in 1998. Fixed asset investment by the public and other sectors of the economy fell by 7.7 percent, month on month, in April. The consumer price index fell by 2.2 percent and the retail price index fell by 3.5 percent in April from the previous month; retail sales were relatively unchanged from March. According to a June 25 report by China's Xinhua news agency, citing State Administration of Internal Trade figures, retail sales fell 1.7 percent in May from the 7 percent growth of the preceding four months. Sharp drops in Chinese consumption have been matched by increases in Chinese bank savings, which, according to the State Statistics Bureau, were up 19.2 percent in April from a year earlier.[4] Preliminary full-year 1998 data on China's balance of payments indicate that China ran an overall deficit in its financial and capital accounts for the first time since 1998, with positive inflows of foreign direct investment being more than offset by outflows of portfolio investment.[5]

Inflation

China has not experienced any recessions, or sustained declines in real GDP, in more than twenty years. Normally, such performance would imply a high degree of macroeconomic stability. But with the price decontrols and gradual financial liberalization of the last twenty years, the phenomenon of periodic price inflation has emerged, which has led many analysts to characterize China's post-reform economy as experiencing "boom and bust" cycles.[6] China has experienced episodes of consumer price inflation at annual rates of 10-25 percent during 1985, 1988-89, and 1993-95. The 1988-89 price inflation contributed to social unrest prior to the Tiananmen Square demonstrations. Rapid rates of money supply expansion have fueled China's inflationary episodes.[7] Since 1995, price inflation has dropped sharply, with continuous price deflation throughout 1998.

International Trade

Data Issues

As discussed further below, a number of issues regarding the quality of China's trade data should be borne in mind in any analysis. For example, the direction of China's trade differs widely as reported

[3]—*Continued*
real exchange rate over a multiyear period. The purchasing power parity exchange rates in table 2-1 for 1992 through 1996 are derived from the World Bank's *World Development Indicators* on CD-ROM, while those for 1997 and 1998 are updated from the 1996 values using changes in Chinese consumer prices and the U.S. GDP deflator. The value of the PPP exchange rate for 1997 implied by the published volume of the World Bank's *World Development Indicators 1999* is 3.57, which is sharply discontinuous with the earlier figures.

[4] The above citations in this paragraph are drawn from "Evidence of Continued Weakness in Chinese Economy," STRATFOR Global Intelligence Update, June 30, 1999 (www.stratfor.com).

[5] Remarks of Nicholas Lardy, Brookings Institution, Washington, DC, June 29, 1999, at a forum sponsored by the Institute for International Economics.

[6] Under the universal price controls of the Maoist regime, price inflation was considered to be both technically and ideologically impossible, with excess demand being manifest through shortages.

[7] On the role of seigniorage from currency issuance in financing China's government budget deficits, see Nicholas R. Lardy, *China's Unfinished Economic Revolution* (Washington, DC, Brookings Institution, 1998), p. 11, and the accompanying note.

by China and by its trading partners. The treatment of China's trade with Hong Kong, Macau, and Taiwan complicates efforts to obtain a picture of Chinese trade that is both accurate and internationally comparable, both for definitional reasons and because of phenomena such as smuggling.

Aggregate Trends

The gross volume of China's merchandise trade (exports plus imports) has grown very rapidly, from about $21 billion in 1978, the first year of reforms, to $324 billion in 1998. China experienced trade deficits in most years from 1978-89, as it moved away from a closed economy and imported both capital and consumer goods previously not available. Since 1990, China has experienced mainly trade surpluses, growing to over $43 billion in 1998. Figure 2-1 shows China's exports, imports, and merchandise trade balance from 1978 to 1998.

Geographical Composition of Trade

Table 2-2 illustrates the changes in China's geographical composition of trade between 1990 and 1996.[8] Based on the table, the principal destinations for China's exports in 1996 were, in descending order by value, Hong Kong, with 22.7 percent of total exports; Japan, 20.2 percent; the United States, 18.2 percent; South Korea, 4.9 percent; and Germany, 4.3 percent. The principal sources of China's 1996 imports were Hong Kong, with 34.8 percent of total imports;[9] Japan, 12.8 percent; Taiwan, 9.4 percent; the United States, 7.4 percent; and South Korea, 7.1 percent.

The most significant development in China's post-reform trading patterns has been the relative increase in trade with the United States, South Korea, and Taiwan. The increasing importance of the United States as a market for Chinese exports is reflected in the increase in the share of those exports directed to the United States from 8.9 percent in 1990 to 18.2 percent in 1996; this increase is likely understated since it does not count transshipments through Hong Kong as Chinese exports to the United States, as in U.S. Commerce Department data. Although China's imports from the United States have grown rapidly, their share of total Chinese imports has declined somewhat, from 10.5 percent in 1990 to 7.4 percent in 1996. The share of Chinese imports originating in Taiwan has increased from 4.0 percent in 1990 to 9.1 percent in 1996, while the share of Chinese exports shipped to Taiwan has increased from 0.5 percent to 1.8 percent in the same period. From 1990 to 1996, the share of China's exports shipped to South Korea has increased from 1.2 percent to 4.9 percent, while the share of China's imports originating in South Korea has increased from 1.0 percent to 7.1 percent. These patterns reflect the tendency of more rapidly growing economies to be represented more heavily in world trade in general, and may also reflect an increased Chinese willingness to permit trade with partners perceived by China as politically sensitive. The shares of Japan and major European economies in China's trade have remained relatively stable in recent years, while the share of the former Soviet Union in China's trade has declined.

Sectoral Composition of Trade

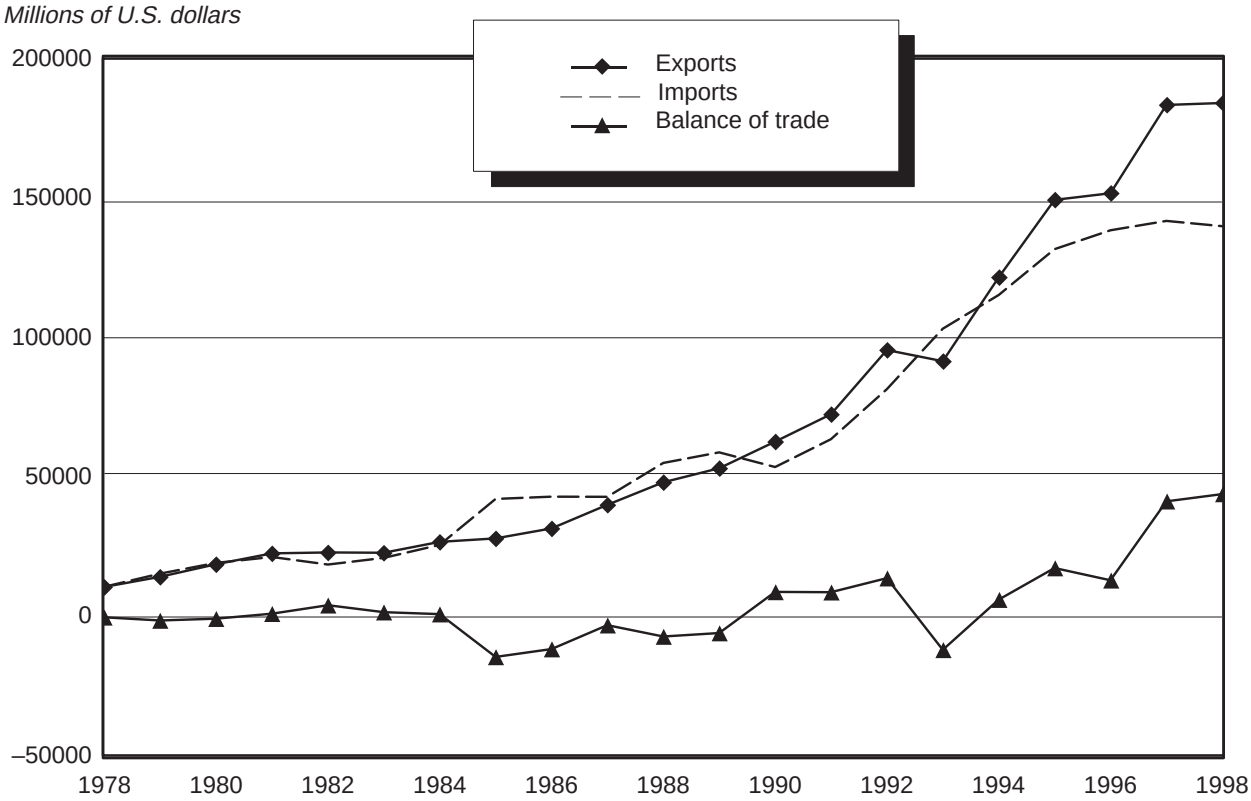
China's exports have shifted sharply from primary products to manufactures over the last twenty years. This change is due both to China's internal prices becoming more closely aligned with international prices, and to its rapid accumulation of industrial capital in the growth process. The split between manufactured and primary exports was approximately 50-50 in 1980; by 1997, approximately 87 percent of China's exports were manufactured.[10] China's principal exports to the world during 1992-97 are shown in table 2-3. In nominal value terms, China's exports grew at a rapid 115 percent rate during 1992-97, or over 16 percent per year. Labor-intensive

[8] Data in table 2-2, and in this section of the chapter, come from the *World Trade Analyzer* database of Statistics Canada, from which the corresponding percentages in the text are derived. This database is derived from U.N. trade data, supplemented with some non-U.N. data (e.g., from Taiwan), which are adjusted for inconsistencies using a procedure described by François Borde, "A Database for Analysis of International Markets"(Ottawa: Statistics Canada, November 1990). None of the various sources of internationally comparable data on bilateral trade flows, which include U.N. data, IMF *Direction of Trade Statistics*, and Statistics Canada, *World Trade Analyzer*, provides an entirely satisfactory picture of China's trade with its partners. In particular, none of the three sources gives a picture of U.S.-China-Hong Kong trade which is consistent with that given in U.S. data, for reasons discussed later in the chapter. U.N. and IMF data omit entirely data on Taiwan's trade, either with China or with the rest of the world, leading to the choice of *World Trade Analyzer* data to depict bilateral trade flows. Because of the procedure used to reconcile the *World Trade Analyzer* data, however, some of the aggregate trade flows in Table 2-2, and the corresponding implied balances of trade, differ significantly from those in the other noted sources.

[9] This figure is significantly larger than that appearing in other sources of bilateral trade data, which put Chinese imports from Hong Kong at about 5 percent of total imports.

[10] Based on State Statistical Bureau, People's Republic of China, *China Statistical Yearbook 1998*, p. 621.

Figure 2-1
China's exports, imports, and balance of trade: 1978-98



Source: International Monetary Fund, *International Financial Statistics*, using lines 70 and 71. Exports are measured as free on board (f.o.b.), imports as cost, insurance, freight (c.i.f.): both figures may vary from the presentation of trade data for balance-of-payments purposes in table 2-2.

manufactures, such as apparel; footwear; toys, games, and sports equipment; and leather products, figure prominently among China's leading exports. This pattern of exports reflects the fact that China is labor-rich and capital-poor relative to other large economies.

China's exports of manufactures from industries ordinarily thought of as capital-intensive manufactures are growing even more rapidly than its exports of labor-intensive manufactures. The nominal value of electrical and non-electrical machinery exports grew at rates of 200 and 307 percent, respectively, over 1992-97. These are currently China's largest and third-largest categories of exports. Other important categories of capital-intensive goods for which exports have grown at a more rapid rate than Chinese exports as a whole include mineral fuels; plastics and articles thereof; professional instruments; and iron and steel, and products thereof (table 2-3).

In some cases, such as telecommunications and electrical equipment, Chinese production activity is focused on processing and final-assembly activity, and thus is significantly more labor-intensive than fully integrated production of such equipment would be in the United States.[11]

However, the growth of China's capital-intensive manufactures may also reflect in part shifts in its comparative advantage. Gross domestic fixed investment has risen from 25.5 percent of GDP in 1990 to 35.6 percent of GDP in 1996, one of the highest investment shares in the world.[12] This investment has been fueled both by high domestic savings rates and by the increased importance of China as a destination for foreign investment. High investment rates, combined with high rates of GDP growth, have permitted the size of the domestic capital stock to increase rapidly relative to the labor

[11] Nicholas R. Lardy, *China in the World Economy(washington, DC: Institute for International Economics, 1994), p. 32.*

[12] World Bank, *World Development Indicators 1998* (Washington, DC: World Bank, 1998).

Table 2–2
China's exports to and imports from major trading partners, 1990 and 1996
(Millions of U.S. dollars)

Exports				Imports			
Country	1990 Amount	Country	1996 Amount	Country	1990 Amount	Country	1996 Amount
Hong Kong	27,281	Hong Kong	35,351	Hong Kong	21,235	Hong Kong	61,564
Japan	10,161	Japan.	31,484	Japan	6,542	Japan	22,717
United States	5,765	United States	28,371	United States	5,980	Taiwan	16,180
Former USSR	2,321	South Korea	7,695	Germany	2,420	United States	13,073
Germany	2,065	Germany	6,754	Taiwan	2,255	South Korea	12,489
Singapore	1,979	Singapore	3,391	Former USSR	2,140	Germany	7,424
Thailand	970	United Kingdom	3,069	France	1,548	Former USSR	4,160
Italy	946	Taiwan	2,855	Canada	1,477	Singapore	3,807
France	909	France	2,712	United Kingdom	1,267	Italy	3,324
Indonesia	870	Netherlands	2,367	Australia	1,147	Australia	3,272
Subtotal	53,267	Subtotal	124,049	Subtotal	46,011	Subtotal	148,010
Others	11,630	Others	31,688	Others	10,829	Others	28,910
Total	64,897	Total	155,717	Total	56,840	Total	176,920

(Percentage of total)

Exports				Imports			
Country	1990 Amount	Country	1996 Amount	Country	1990 Amount	Country	1996 Amount
Hong Kong	42.0	Hong Kong	22.7	Hong Kong	37.4	Hong Kong	34.8
Japan	15.7	Japan.	20.2	Japan	11.5	Japan	12.8
United States	8.9	United States	18.2	United States	10.5	Taiwan	9.1
Former USSR	3.6	South Korea	4.9	Germany	4.3	United States	7.4
Germany	3.2	Germany	4.3	Taiwan	4.0	South Korea	7.1
Singapore	3.0	Singapore	2.2	Former USSR	3.8	Germany	4.2
Thailand	1.5	United Kingdom	2.0	France	2.7	Former USSR	2.4
Italy	1.5	Taiwan	1.8	Canada	2.6	Singapore	2.2
France	1.4	France	1.7	United Kingdom	2.2	Italy	1.9
Indonesia	1.3	Netherlands	1.5	Australia	2.0	Australia	1.8
Subtotal	82.1	Subtotal	80.0	Subtotal	80.9	Subtotal	83.7
Others	17.9	Others	20.0	Others	18.1	Others	16.3
Total	100.0	Total	100.0	Total	100.0	Total	100.0

Source: Statistics Canada, *World Trade Analyzer*.

Table 2–3
China's exports to the world, 1992–97

HTS	Sector	1992	1993	1994	1995	1996	1997	Growth 1992–97
		Millions of U.S. dollars						*Percent*
	Total	84,940	91,744	121,006	148,780	151,048	182,792	115
85	Electrical machinery	8,175	9,696	14,111	18,957	20,168	24,553	200
62	Non–knit apparel	10,525	11,541	15,019	14,345	14,571	16,920	61
84	Non–electrical machinery	3,367	4,211	5,603	8,671	10,897	13,717	307
61	Knitted, crocheted apparel	4,639	5,032	6,321	6,937	7,626	11,721	153
64	Footwear, etc.	4,242	5,280	6,042	6,662	7,103	8,541	101
95	Toys, games, sports equipment.	3,261	3,710	4,716	5,415	5,978	7,520	131
27	Mineral fuel, oil, etc.	4,692	4,109	4,069	5,332	5,932	6,987	49
42	Leather products	2,427	2,893	4,141	4,903	4,724	5,584	130
39	Plastics & articles	1,516	1,825	2,660	3,535	3,589	4,845	220
90	Cameras, optics, instruments	900	1,092	1,550	2,427	2,991	3,998	344
73	Articles of iron and steel	1,274	1,448	1,961	2,796	3,129	3,835	201
72	Iron and steel	1,113	841	1,390	4,723	3,083	3,827	244
94	Furniture, bedding, lamps, etc.	1,293	1,765	2,466	2,930	3,048	3,804	194
29	Organic chemicals	1,404	1,541	2,238	3,222	3,144	3,397	142
52	Cotton, including yarn, fabric	2,566	2,784	3,235	3,850	3,158	3,117	21
55	Manmade staple fibers	1,505	1,456	2,074	2,655	2,332	2,740	82
63	Miscellaneous textile articles	1,706	1,748	2,196	2,562	2,456	2,685	57
28	Inorganic chemicals	1,050	1,144	1,352	2,229	2,109	2,388	128
87	Motor vehicles & parts	908	1,084	1,300	1,686	1,709	2,073	128
91	Clocks, watches & parts	1,358	1,510	1,914	2,096	1,964	2,044	50
	Other exports	27,015	27,035	36,648	42,846	41,338	48,496	80

Source: United Nations.

force. In addition, ongoing technology transfer has permitted Chinese entry into increasingly diverse and sophisticated product lines. This technology transfer has been fueled by foreign direct investment, particularly under Chinese policies which are designed to maximize the degree of technology transfer associated with such investment, as well as by technology purchase. Internationally common methods of technology transfer, such as use of public-domain information and reverse engineering, have probably also played a significant role. See chapters 4 and 5 for additional information on China's technology transfer policies.

China's imports, as well as its exports, have shifted to manufactures in recent years. Like most low-wage countries, China's imports are more capital-intensive than its exports. China's imports consisted of approximately 80 percent manufactures and 20 percent primary products in 1997, as compared to 65 percent and 35 percent, respectively, in 1980.[13] China's principal imports during 1992-97 are shown in table 2-4. The nominal value of Chinese imports grew by 77 percent between 1992 and 1997, or about 12 percent per year. Principal Chinese import goods include non-electrical and electrical machinery; mineral fuels; plastics and articles thereof; iron and steel; and manmade filaments and yarns. Imports of machinery and advanced materials are another important vehicle by which China absorbs internationally state-of-the-art technologies.

China's imports of animal feed and food waste have grown particularly rapidly in recent years, in order to support its livestock sector on increasingly scarce agricultural land. Another rapidly growing import category has been mineral fuels and oils. China was a net exporter of these products in the period immediately following the 1978 reforms, when its industrial base was still heavily influenced by Maoist policies of autarky, but has become a net importer of these products in recent years. The only large category of imports which has declined in recent years is motor vehicles and parts. China issued new automotive policies in 1994 promoting domestic auto production as a "pillar industry" and pursuing policies of import substitution, including new joint ventures with foreign automakers.[14]

U.S. Trade with China

This section discusses recent developments in U.S. trade with China, primarily relying on Commerce Department data but drawing comparisons with Chinese data where appropriate.[15] The difference between U.S. and Chinese reckonings of the bilateral merchandise trade deficit is discussed and explained, as well as trends in the commodity composition of U.S. trade with China. U.S. trade with China has grown rapidly since the beginning of reforms in 1978 (table 2-5 and figure 2-2). As reported by the United States to the IMF, U.S. exports to China have grown from about $824 million in 1978 to $12.8 billion in 1997, and U.S. imports from China have grown from about $357 million in 1978 to $65.8 billion in 1997. According to U.S. data, the balance of U.S. bilateral trade with China has been in deficit since 1983, with the magnitude of the deficit progressively increasing to over $57 billion in 1998.

Chinese data portray the bilateral trade picture very differently, showing the United States running trade surpluses with China through 1992, and the U.S. bilateral deficit as only $16.4 billion in 1997 (table 2-5 and figure 2-3). The primary reason for this discrepancy is the treatment of Chinese exports that move through Hong Kong. Many goods leave China for Hong Kong, undergo varying degrees of processing, and are re-exported to the United States. U.S. trade data treat these goods as originating in China, while Chinese data do not record what happens to these goods once they have entered the separate customs territory of Hong Kong. Similar discrepancies exist for China's bilateral trade with Japan and other countries. When China's reported exports to Hong Kong and the United States, as given in Chinese data, are combined, and the total compared to U.S. imports from China and Hong Kong together, as given in U.S. data, the totals approximately reconcile (table 2-6).[16]

Principal U.S. exports to China in 1998 included aircraft and spacecraft of HTS ch. 88 ($3.58 billion), "non-electrical" machinery of HTS ch. 84 ($2.61 billion), electrical machinery of HTS ch. 85 ($1.65 billion), fertilizer of HTS ch. 31 ($1.064 billion), and professional instruments of HTS ch. 90 ($590 million) (table 2-7). China's domestic agricultural, livestock, and forestry resources, particularly arable land and water, have come under increasing pressure as Chinese income and population have grown; thus,

[13] *China Statistical Yearbook 1998*, p. 622.

[14] See U.S. International Trade Commission, "China's Evolving Automotive Industry and Market," *International Trade and Technology Review*, USITC publication 3114, June 1998, pp. 1-21.

[15] Commerce Department data is used here in order to reflect the U.S. practice of treating goods transshipped from China through Hong Kong to the United States as U.S. imports from China. The issue of China-Taiwan trade, which necessitated the use of World Trade Analyzer data earlier in the chapter, does not affect measures of U.S.-China trade directly.

[16] The measured size of the markup on goods re-exported through Hong Kong also influences discrepancies between bilateral trade balances as recorded by the U.S. and China. See Robert C. Feenstra, Wen Hai, Wing T. Woo and Shunli Yao, "The U.S.-China Bilateral Trade Balance: Its Size and Determinants," *National Bureau of Economic Research Working Paper* 6598 (Cambridge MA: NBER, June 1998).

Table 2–4
China's imports from the world, 1992–97

HTS	Sector	1992	1993	1994	1995	1996	1997	Growth 1992–97
		Millions of U.S. dollars						*Percent*
	Total	80,585	103,959	115,614	132,084	138,833	142,370	77
84	Non–electrical machinery	14,944	23,091	25,096	27,580	30,074	24,768	66
85	Electrical machinery	9,518	12,756	16,556	19,349	18,947	21,990	131
27	Mineral fuel, oil, etc.	3,571	5,819	4,037	5,133	6,888	10,345	190
39	Plastics & articles	4,754	4,955	6,166	8,015	8,819	10,199	115
72	Iron and steel	3,583	12,046	8,297	5,484	6,799	6,070	69
54	Manmade filaments, yarn	2,260	2,373	2,863	3,379	3,861	3,872	71
52	Cotton, including yarn, fabric	1,719	1,237	2,526	3,359	3,530	3,731	117
90	Cameras, optics, instruments	2,024	2,320	2,527	3,289	3,545	3,644	80
48	Paper and articles	1,653	1,620	2,047	2,320	2,972	3,466	110
55	Manmade staple fibers	1,979	1,841	2,558	3,190	3,283	3,325	68
88	Aircraft, spacecraft & parts	2,034	2,270	3,397	1,360	2,649	3,235	59
29	Organic chemicals	1,876	1,706	2,152	3,295	3,119	3,053	63
31	Fertilizers	3,004	1,479	1,938	3,742	3,563	2,995	0
41	Raw hides, skins, leather	1,188	1,580	1,986	2,251	2,359	2,495	110
26	Ores, slag and ash	1,149	1,214	1,344	1,978	2,197	2,454	114
74	Copper & articles	1,565	1,487	1,209	1,955	2,083	2,157	38
44	Wood and wood products	1,411	1,583	1,630	1,564	1,559	1,972	40
73	Articles of iron and steel	1,468	1,837	2,369	2,156	1,638	1,940	32
87	Motor vehicles & parts	3,614	5,393	4,849	2,719	2,209	1,888	–48
23	Animal feed & food waste	461	307	347	420	1,298	1,791	288
	Other imports	16,811	17,044	21,720	29,545	27,443	26,981	60

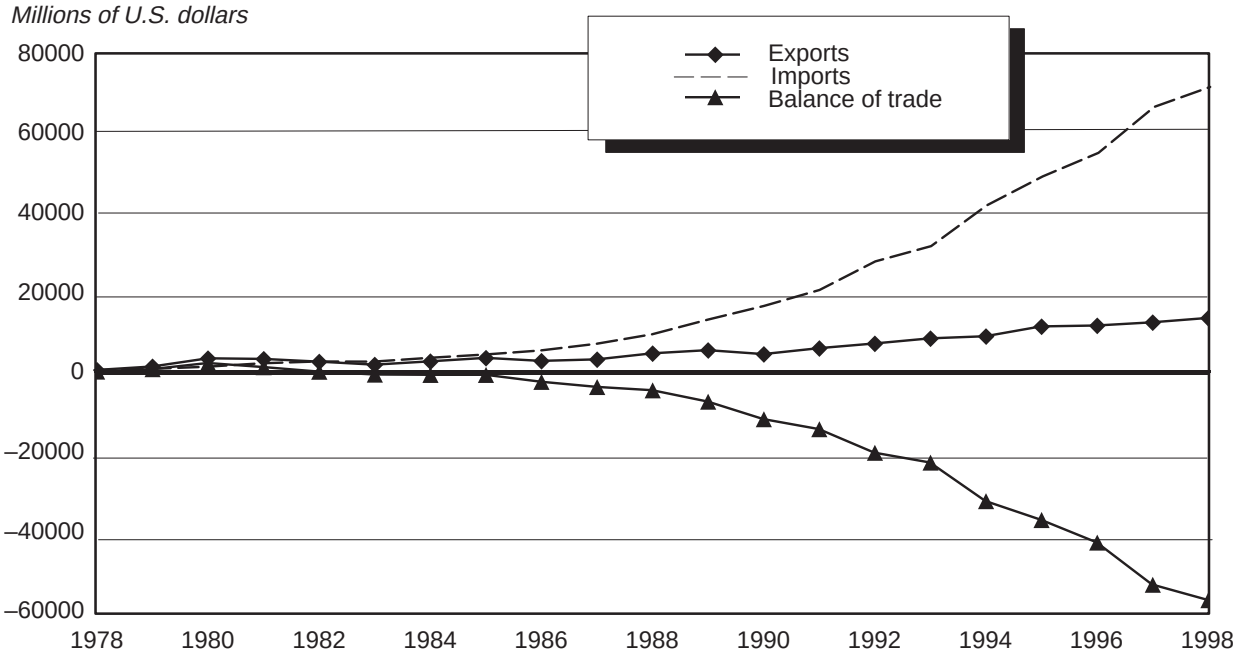
Source: United Nations.

Table 2-5
China's merchandise trade with the United States as reported by the United States, with balance as reported by China for comparison, 1978-98
(Millions of U.S. dollars)

Year	United States trade		Balance of trade	
	Exports to China	Imports from China	Using U.S. data	Using Chinese data
1978	824	357	467	450
1979	1,724	656	1,068	1,262
1980	3,755	1,164	2,591	2,848
1981	3,603	2,062	1,541	3,177
1982	2,912	2,502	410	2,534
1983	2,173	2,476	-303	1,040
1984	3,004	3,381	-377	1,525
1985	3,856	4,224	-368	2,863
1986	3,106	5,240	-2,134	2,086
1987	3,497	6,910	-3,413	1,805
1988	5,017	9,261	-4,244	3,234
1989	5,807	12,901	-7,094	3,450
1990	4,807	16,296	-11,489	1,277
1991	6,287	20,305	-14,018	1,812
1992	7,470	27,413	-19,943	304
1993	8,767	31,183	-22,416	-6,344
1994	9,287	41,362	-32,075	-7,444
1995	11,749	48,521	-36,772	-8,621
1996	11,978	54,409	-42,431	-10,552
1997	12,805	65,832	-53,027	-16,454
1998	13,908	70,815	-56,907	-16,317

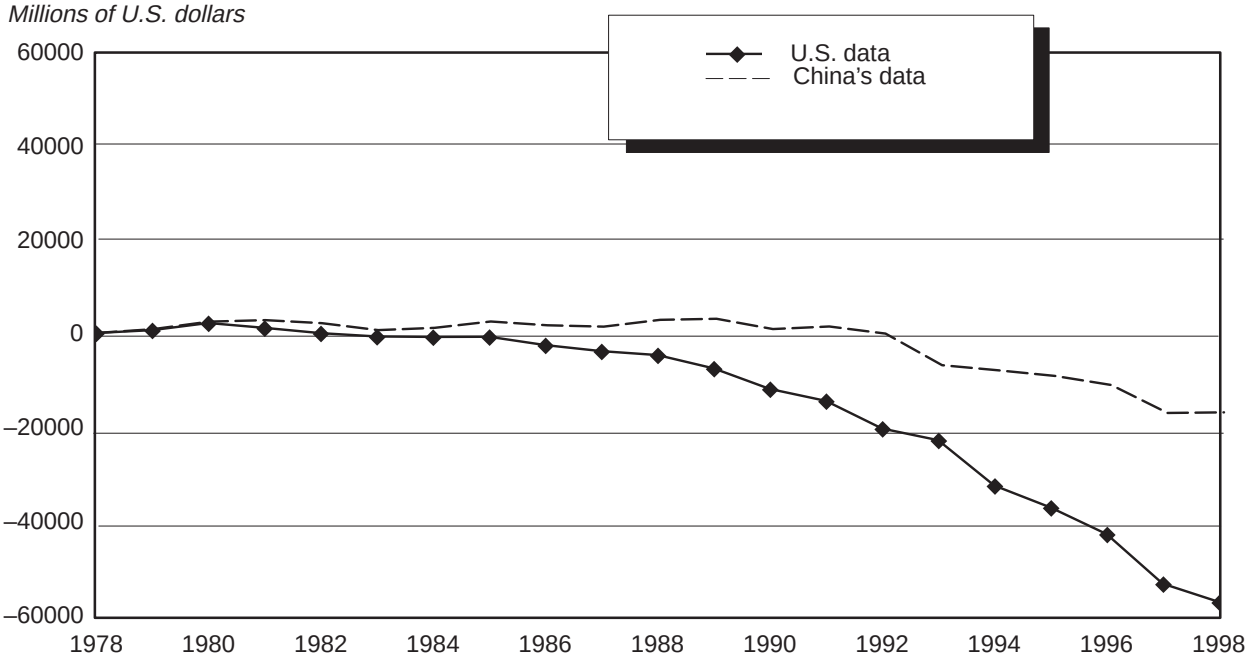
Note.—Exports f.o.b. value, imports c.i.f. value.
Source: For 1978-97, International Monetary Fund, *Direction of Trade Statistics*. For 1998, U.S. Department of Commerce (U.S. data), People's Republic of China General Administration of Customs, *China's Customs Statistics*, as cited by U.S.-China Business Council (Chinese data).

Figure 2-2
U.S. merchandise trade with China: exports, imports, and balance of trade, 1978-98



Source: Department of Commerce.

Figure 2-3
Differences in reporting trade statistics: U.S. merchandise balance of trade with China as reported by United States and China, 1978-98



Note.—Exports f.o.b. value, imports c.i.f. value. A positive figure indicates U.S. exports exceed U.S. imports.

Source: For 1978-98, International Monetary Fund, *Direction of Trade Statistics*. For 1998, U.S. Department of Commerce (for U.S. data) and People's Republic of China General Administration of Customs, *China's Customs Statistics* (for China's data), as cited by U.S.-China Business Council.

Table 2–6
Differences in reporting trade statistics: U.S. imports from China and Hong Kong compared with China's and Hong Kong's exports to the United States, 1978–98

(Millions of U.S. dollars)

Year	U.S. reported imports from China	China's reported exports to the United States	U.S. reported imports from Hong Kong	Hong Kong's reported exports to the United States	U.S. reported imports from China and Hong Kong	China's and Hong Kong's reported exports to the United States
1978	357	271	3,767	3,490	4,124	3,761
1979	656	595	4,307	4,144	4,963	4,739
1980	1,164	983	5,029	5,157	6,193	6,140
1981	2,062	1,505	5,758	6,056	7,820	7,561
1982	2,502	1,765	5,895	6,040	8,397	7,805
1983	2,476	1,713	6,825	7,069	9,302	8,782
1984	3,381	2,313	8,899	9,405	12,280	11,718
1985	4,224	2,336	8,994	9,301	13,218	11,637
1986	5,240	2,633	9,477	11,108	14,718	13,741
1987	6,910	3,030	10,490	13,511	17,400	16,541
1988	9,261	3,399	10,815	15,689	20,076	19,088
1989	12,901	4,414	10,238	18,505	23,139	22,919
1990	16,296	5,314	9,951	19,817	26,247	25,131
1991	20,305	6,198	9,740	22,391	30,045	28,589
1992	27,413	8,599	10,266	27,583	37,679	36,182
1993	31,183	16,976	10,000	31,169	41,183	48,135
1994	41,362	21,421	10,142	35,179	51,504	56,600
1995	48,521	24,744	10,745	37,851	59,266	62,595
1996	54,409	26,731	10,262	38,369	64,671	65,100
1997	65,832	32,744	10,675	40,949	79,507	73,693
1998	75,380	48,804	10,936	40,700	86,316	89,504

Note.—Exports f.o.b. value, imports c.i.f. value.
Source: International Monetary Fund, *Direction of Trade Statistics*.

Table 2–7
U.S. exports to China, 1992–98

HTS	Sector	1992	1993	1994	1995	1996	1997	1998	Growth 1992–98
					Million dollars				*Percent*
	Total	7,339	8,619	9,178	11,613	11,801	12,533	13,908	90
88	Aircraft, spacecraft & parts	2,046	2,228	1,902	1,173	1,701	2,121	3,584	75
84	Non–electrical machinery	1,157	1,794	1,902	2,167	2,266	2,430	2,610	126
85	Electric machinery	452	869	900	1,242	1,380	1,448	1,652	266
31	Fertilizers	629	293	944	1,204	891	1,050	1,064	69
90	Cameras, optics, instruments	418	443	368	432	463	572	587	41
39	Plastics & articles	223	197	173	334	393	423	430	93
48	Paper and articles	110	111	127	142	250	260	335	204
15	Animal, vegetable fats & oils	10	4	136	396	114	168	319	3,238
12	Oil seeds, etc	32	25	11	56	427	428	303	844
29	Organic chemicals	212	205	233	262	245	213	220	4
98	Special categories	66	82	104	148	158	142	200	201
23	Animal feed & food waste	3	3	4	15	136	115	195	7,242
41	Raw hides, skins, leather	15	23	58	110	117	135	160	961
47	Wood pulp, waste paper	60	46	105	183	187	148	157	159
76	Aluminum & articles	60	59	81	147	175	193	148	146
87	Motor vehicles & parts	232	762	300	151	156	351	142	–39
27	Mineral fuel, oil, etc.	200	240	62	26	68	226	127	–36
38	Miscellaneous chemicals products	42	46	46	104	83	111	126	200
52	Cotton, including yarn, fabric	200	5	649	833	730	577	125	–38
72	Iron and steel	52	117	83	141	72	71	91	77
	Other exports	1,119	1,065	990	2,346	1,791	1,352	1,332	19

Source: Commerce Department. Data are rounded. Percentage changes are calculated from unrounded data.

China increasingly relies on imports of food and other agricultural products. Commodities such as animal and vegetable fats and oils (HTS ch. 15), oilseeds (HTS ch. 12), animal feed and food waste (HTS ch. 23), paper and articles thereof (HTS ch. 48), and raw hides, skins, and leather (HTS ch. 41) have been among the most rapidly growing U.S. exports to China. U.S. exports of more technologically advanced products have grown especially rapidly, including electrical machinery of HTS ch. 85 (266 percent over 1992-98) and miscellaneous chemical products of HTS ch. 38 (200 percent). Exports of products in the special categories of HTS ch. 98, primarily goods associated with production-sharing operations of affiliates of U.S. firms operating in China, have grown by 201 percent between 1992 and 1998.

Principal U.S. imports from China in 1998 included electrical machinery of HTS ch. 85 ($12.57 billion), toys, games and sporting goods of HTS ch. 95 ($10.56 billion), footwear of HTS ch. 64 ($8.02 billion), "non-electrical" machinery of HTS ch. 84 ($7.58 billion) and apparel of HTS ch. 61 and HTS ch. 62 ($5.66 billion) (table 2-8). U.S. imports from China have grown rapidly, nearly tripling in nominal value between 1992 and 1998. Especially rapid growth has taken place in imports of machinery of HTS ch. 84 (including both non-electrical machinery and computers), furniture, bedding, lamps, and related goods (HTS ch. 94), cameras, optics, and instruments (HTS ch. 90), and motor vehicles and parts (HTS ch. 87). Chinese knit and non-knit apparel exports to the United States have grown significantly more slowly than the growth of Chinese apparel exports to the rest of the world. Over the period for which comparable data are available (1992-97), Chinese exports of non-knit and knit apparel to the United States have grown by 37 and 32 percent, respectively. Chinese exports to the world of goods in these two categories have grown by 61 percent and 153 percent, respectively, over the same period (see tables 2-3 and 2-7). The slower growth rate of apparel imports in the United States may reflect in part the operation of the bilateral textile agreement with China. The categories of U.S. imports from China which have grown most rapidly are mainly categories in which Chinese exports have grown rapidly to all destinations, with the exception of motor vehicles and parts, for which growth of shipments to the United States has been over twice as rapid as growth of Chinese exports to the world as a whole.[17]

[17] The rapid growth in China's exports of motor vehicles and parts to the United States is explained, in part, by China's 1994 policies designed to promote production in these industries as well as by increased investment in joint ventures between Chinese and U.S. auto parts manufacturers. For further discussion on this topic, see the section of this chapter entitled "Sectoral

Foreign Direct Investment

As of 1997, there were over 300,000 approved foreign direct investment contracts in China, amounting to about $519 billion of contracted investment and $223 billion of actually utilized investment (table 2-9).[18] For the most recent year available, 1997, $51.8 billion of investment was contracted and $45.3 billion actually utilized. Historically, joint ventures have been a more important form of direct investment than wholly foreign-owned enterprises. In recent years, the role of wholly foreign-owned enterprises has increased significantly, as has the share of joint ventures with foreign equity participation relative to contractual joint ventures without foreign equity.[19] Annually utilized investment has increased steadily from $3.4 billion in 1990. There was a massive surge in direct investment contracts from about $12.0 billion in 1992, to $58.1 billion in 1993, to $111.4 billion in 1994. These increases were due to liberalizations in investment policy associated with Deng Xiaoping's 1992 "trip to the south" (see below). Investors rushed to take advantage of these because of the perception that the liberalizations might be temporary. As investors have gradually come to see these changes as permanent, new investment contracts have fallen gradually from 1993 through 1997 while actually utilized investment has steadily increased.

According to Chinese data, the primary sources of contracted foreign direct investment in 1997 were Hong Kong, with 35 percent; the United States, 10 percent; Japan, 7 percent; and Taiwan, 5 percent (table 2-10). The primary sectors receiving foreign direct investment in 1997 from all countries, as actually utilized, were manufacturing, 62 percent; and real estate, 11 percent (table 2-11).

Approximately 70 percent of China's inbound foreign direct investment is concentrated in the five coastal provinces of Guangdong, Jiangsu, Fujian, Shanghai, and Shandong (figure 2-4 and table 2-12). This is due in part to the location of special enterprise zones (SEZs), and probably also reflects deliberate

[17]—*Continued*
Composition of Trade" and U.S. International Trade Commission, "China's Evolving Automotive Industry and Market."

[18] In practice, there may be a lag of several years before the investment projects described in completed contracts are fully executed, and some projects may be abandoned altogether. This accounts for the fact that the figures for contracted investment are significantly larger than those for actually utilized investment.

[19] See below, under "Foreign-invested enterprises (FIEs)—organizational forms and procedures for establishment" for discussion of Chinese policies related to inbound foreign direct investment.

Table 2–8
U.S. imports from China, 1992–98

HTS	Sector	1992	1993	1994	1995	1996	1997	1998	Growth 1992–98
					Million dollars				*Percent*
	Total	25,514	31,425	38,572	45,370	51,209	61,996	70,815	178
85	Electric machinery	3,375	4,404	6,414	7,779	8,751	10,426	12,573	273
95	Toys, games, sporting goods	3,686	4,165	5,152	6,213	7,504	9.363	10,557	186
64	Footwear	3,396	4,505	5,254	5,817	6,367	7,354	8,016	136
84	Non–electrical machinery	1,046	1,532	2,323	3,596	4,460	5,971	7,583	625
94	Furniture, bedding, lamps, etc	682	1,103	1,588	1,972	2,395	2,994	3,947	479
62	Non–knit apparel	3,025	3,761	3,509	3,274	3,510	4,153	3,806	26
42	Leather products	1,537	1,926	2,479	2,532	2,621	2,948	2,931	91
90	Cameras, optics, instruments	291	476	722	1,262	1,479	1,927	2,179	648
39	Plastics & articles	784	1,067	1,334	1,619	1,742	1,983	2,086	166
61	Knitted, crocheted apparel	1,372	1,504	1,566	1,372	1,506	1,813	1,855	35
73	Articles of iron & steel	294	338	429	556	666	872	1,104	276
87	Motor vehicles & parts	184	304	407	499	545	719	858	367
63	Misc. textile articles	433	491	573	649	585	717	818	89
67	Wigs, fake flowers, etc	412	465	564	642	604	700	781	90
69	Ceramic products	262	336	426	555	591	683	756	189
82	Tools, cutlery of base metals	193	246	287	363	399	508	597	210
83	Misc. metal stuff	160	209	251	324	386	454	565	253
96	Misc. manufactured arts.	169	225	279	346	388	469	534	216
91	Clocks, watches & parts	219	261	332	344	401	464	528	141
29	Organic chemicals	175	211	270	360	429	476	525	199
	Other imports	3,819	3,899	4,414	5,295	5,878	7,002	8,216	115

Source: Commerce Department. Data are rounded. Percentage changes are calculated from unrounded data.

Table 2–9
Foreign direct investment in China, total and by type of contract, 1979–97

	1979–89	1990	1991	1992	1993	1994	1995	1996	1997	Total
Equity joint ventures										
Number of contracts	2,198	4,091	8,395	34,354	54,003	27,890	20,455	12,628	9,046	183,060
Amount contracted (unit: mil US $)	12,530	2,704	6,080	29,128	55,174	40,194	39,741	31,876	21,405	238,832
Contractual joint ventures										
Number of contracts	7,994	1,317	1,778	5,711	10,445	6,634	4,787	2,849	2,371	43,886
Amount contracted (mil US $)	13,558	1,254	2,138	13,255	25,500	20,301	17,825	14,297	12,165	120,293
Wholly foreign–owned enterprises										
Number of contracts	1,525	1,860	2,795	8,692	18,975	13,007	11,761	9,062	9,604	77,281
Amount contracted (mil US $)	3,144	2,444	3,670	15,696	30,457	21,949	33,658	26,810	17,695	155,523
Joint resource exploration companies										
Number of contracts	59	5	10	7	14	18	8	17	19	147
Amount contracted (mil US $)	3,132	194	92	43	305	237	57	292	402	4,754
Total foreign direct investment										
Number of contracts	21,776	7,273	12,978	48,764	83,437	47,549	37,011	24,556	21,001	304,345
Amount contracted (mil US $)	28,221	6,596	11,977	58,124	111,436	82,680	91,282	73,276	51,004	514,596
Amount utilized (mil US $)	15,495	3,487	4,366	11,008	27,515	33,767	37,521	41,726	45,257	220,141

Note.—For 1998, total contracted FDI was $52.130 billion and actually utilized FDI was $45.580 billion (People's Republic of China, Ministry of Foreign Trade and Economic Cooperation, as cited by U.S.–China Business Council); no breakdown for 1998 is available by organizational form.

Source: State Statistical Bureau, People's Republic of China, *China Statistical Yearbook 1998*, and U.S.–China Business Council.

Table 2-10
Foreign direct investment in China, by leading source countries or regions, 1997

Country or region	Number of new contracts	Amount of new contracts	Actually utilized: Value	Actually utilized: Percent of total value
		Millions of U.S. dollars		
Hong Kong	8,405	18,220	20,630	45.6
Taiwan	3,014	2,810	3,290	7.3
Macau	266	360	390	0.9
Japan	1,402	3,400	4,330	9.6
United States	2,188	4,940	3,240	7.2
Singapore	734	4,470	2,610	5.8
South Korea	1,753	2,180	2,140	4.7
United Kingdom	304	1,450	1,860	4.1
Germany	221	610	990	2.2
Canada	399	910	340	0.8
Australia	329	610	310	0.7
Subtotal	19,015	39,960	40,130	88.6
Others	2,013	11,840	5,148	11.4
Total, all sources	21,028	51,800	45,278	100.0

Source: Official statistics of China's Ministry of Foreign Trade and Economic Cooperation, compiled by U.S. Embassy in Beijing.

Table 2-11
Foreign direct investment in China by sectors, 1997

Sector	Number of new contracts	Amount of new contracts	Actually utilized amounts
		Millions of U.S. dollars	*Millions of U.S. dollars*
Agriculture, forestry, animal husbandry and fisheries	814	1,070	630
Evacuation	154	720	940
Manufacturing	14,716	27,060	28,120
Production and supply of power, gas and water	156	3,660	2,070
Construction	455	3,120	1,440
Geological prospecting and water conservancy management	7	20	10
Transport, storage, postal and telecom. svcs.	279	2,620	1,660
Wholesale and retail trade and food services	1,198	1,840	1,400
Real estate	862	6,220	5,170
Social services	1,400	2,670	1,990
Healthcare, sports, and social welfare	38	140	200
Education, culture, arts, radio, film and television broadcasting	34	70	70
Scientific research and poly-technical services	56	140	20
Others	832	1,660	1,540
Total	21,001	51,010	45,260

Source: Official Statistics of China's Ministry of Foreign Trade and Economic Cooperation, compiled by U.S. Embassy in Beijing.

Figure 2-4
Provinces accounting for 70 percent of China's foreign direct investment in green

Source: Chinese data, as cited by U.S.-China Business Council.

Table 2-12
Foreign direct investment in China, by province, 1979-97

Province	No. of Projects	Amount contracted	Amount utilized
		Millions of U.S. dollars	
Guandong	4,611	15,574.6	11,623.6
Jiangsu	2,691	10,682.6	5,210.1
Fujian	1,988	6,540.6	4,084.5
Shanghai	2,086	10,069.1	3,940.9
Shandong	2,175	5,418.0	2,590.4
Liaoning	1,760	4,245.0	1,737.7
Beijing	868	1,790.3	1,552.9
Zhejiang	1,209	3,129.1	1,520.5
Other	5,999	11,250.6	7,192.0
Total	23,387	68,699.9	39,452.6

Source: *China Economic News*, as cited by U.S.-China Business Council.

geographical concentration of entities permitted to trade by the Chinese authorities (see below). Because of these factors, there is geographical concentration of foreign direct investment within provinces as well.

According to U.S. data, nonbank affiliates of U.S. firms in China had approximately $14.0 billion of assets in 1996, with annual sales of $11.4 billion (table 2-13). Despite impressions that U.S. affiliates in China serve primarily as platforms for export into the U.S. market, the United States actually exports more to its foreign affiliates than it imports from them. In 1996, the most recent year for which data are available, U.S. exports to nonbank affiliates of U.S. firms in China were $1.663 billion, or about 14 percent of all U.S. exports to China, while U.S. imports from nonbank affiliates of U.S. firms in China were $1.043 billion, or about 2 percent of all U.S. imports from China (figure 2-5). There are substantial linkages between direct investment and trade in China, due partly to export performance requirements and customs privileges associated with direct investment and to offset requirements which compel some firms desiring to export to China to engage in local production (see chapter 4 for more details). According to Chinese data, in 1993 about 45 percent of China's exports and 33 percent of China's imports were accounted for by foreign firms and foreign subcontracting.[20]

[20] K.C. Fung, "Accounting for Chinese Trade: Some National and Regional Considerations," *National Bureau of Economic Research Working Paper* 5595 (Cambridge, MA: NBER, May 1996)

Balance of Payments

China's current account position has fluctuated between surplus and deficit in recent years. Though China has experienced deficits in both its current account and merchandise trade account as recently as 1993, both accounts have been in surplus since 1994. Table 2-14 shows the Chinese balance of payments in condensed form from 1991-97. China's current account surplus has grown more or less steadily, from approximately $6.9 billion in 1994 to $29.7 billion in 1997. China's merchandise trade balance has increased from approximately $7.3 billion in 1994 to $46.2 billion in 1997. Elsewhere in the current account, China has tended in recent years to run deficits in its services account ($5.7 billion in 1997), pays more than it receives in factor income (net income outflows were $19.1 billion in 1997), and is a net recipient of international transfers ($5.1 billion in 1997). China's financial and capital accounts show inflows of $44.2 billion in foreign direct investment and only $6.8 billion in portfolio investment. This pattern of foreign investment makes China less vulnerable to speculative withdrawals of capital, and to contagion in international financial markets, than most other developing countries. China is also a significant source of outbound foreign direct investment (FDI), with annual FDI outflows in the $2-$4 billion range since 1992.

It is unusual for countries to maintain surpluses in both the current and capital accounts for an extended period of time. Under such conditions, if the renminbi were freely floating, it would ordinarily appreciate sharply. Since the exchange rate of China's currency

is kept relatively stable by the authorities (see appendix F), the surpluses on the current and capital accounts cause instead a rapid accumulation of international reserves. China's international reserves have grown rapidly, from about $20.3 billion in 1992 to about $142.7 billion in 1997. In principal, China's annual accumulation of reserves should equal the sum of its current and capital account surpluses; however, actual reserves grow significantly more slowly than that. This is because China experiences chronic unrecorded capital flight through such means as currency smuggling, overinvoicing of imports, and underinvoicing of exports.[21] The negative sign in the "errors and omissions" portion of China's balance of payments is consistent with the presence of net unrecorded capital flight, and the magnitude of "errors and omissions,'' running in excess of $10 billion annually in recent years, may give an approximate indicator of the order of magnitude of net capital flight. By the "errors and omissions" measures, if all of the accumulated unrecorded capital outflows for the seven-year period 1991-97 had been retained in the country and added to China's international reserves, those reserves would be approximately $84.3 billion (59 percent) larger than their actual current level. Such capital flight does not include recorded capital flight, e.g,. recorded accumulation of deposits by mainland Chinese in overseas bank accounts.

China's Trade and Investment Policies

Tariffs

Prior to the start of the reform movement in 1978, China conducted its foreign trade through twelve state trading companies (STCs), each one with a monopoly in a particular area and conducting trade in accordance with the central plan. Early in the process of reform, tariffs were introduced as a method of regulating trade more consistent with the principles of a market economy. Rates were reduced for 81 of 6,300 tariff lines during 1986-91. In the 1990s China has made a series of steep unilateral tariff cuts, as follows:[22]

Year	MFN applied tariff rate, simple average	Import duties collected as MFN applied tariff rate percentage of imports
1992	42.5	6.1
1993	38.0	5.3
1994	34.6	3.3
1995	34.3	3.2
1996	23.4	Not available
1997	17.0	Not available

As the above data show, import duties collected as a percentage of imports are unusually low relative to China's MFN-applied rates.[23] The discrepancy occurs for a number of reasons. First, the administration of China's customs has been decentralized, so that local application and enforcement of the tariff varies greatly. Second, Chinese policies include a wide variety of duty exemptions and reductions for favored activities, including measures related to trade in SEZs and some trade related to foreign investment. Third, there is reported to be widespread corruption in the administration of customs. This corruption hampers the ability of the Chinese authorities to raise government revenue at the statutory rates, and finds its parallels in other parts of the Chinese tax system.[24]

Other Trade Policies

Designated trading entities and distribution

Under Chinese law, foreigners may trade only with those Chinese entities that have the legal right to engage in international trade. Over time, China has gradually increased the number of entities permitted to trade with foreigners beyond the twelve state trading companies operating prior to reform. By the mid-1980s, about 700 foreign trading companies (FTCs) operated on an agency basis, under which the

[21] See Nicholas R.Lardy, China's Unfinished Economic Revolution (Washington DC: Brookings Institution, 1998), p. 192

[22] Simple average tariff rates for 1993-96 are from United Nations Conference on Trade and Development (UNCTAD), *TRAINS (Trade Analysis and Information System)*, and for 1992 and 1997 are from Zhang Shugan, Zhang Yanshen and Wan Zhongxin, *Measuring the Costs*

[22]—*Continued*
of Protection in China (Washington DC: Institute for International Economics and Unirule Institute of Economics: Beijing, 1999). Import duties as percentage of imports are from World Bank, *World Development Indicators.*

[23] For a discussion of the effects of corruption on foreign-invested enterprises, see Daniel H. Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace* (Washington DC, Institute for International Economics, 1999), particularly pp. 218-220.

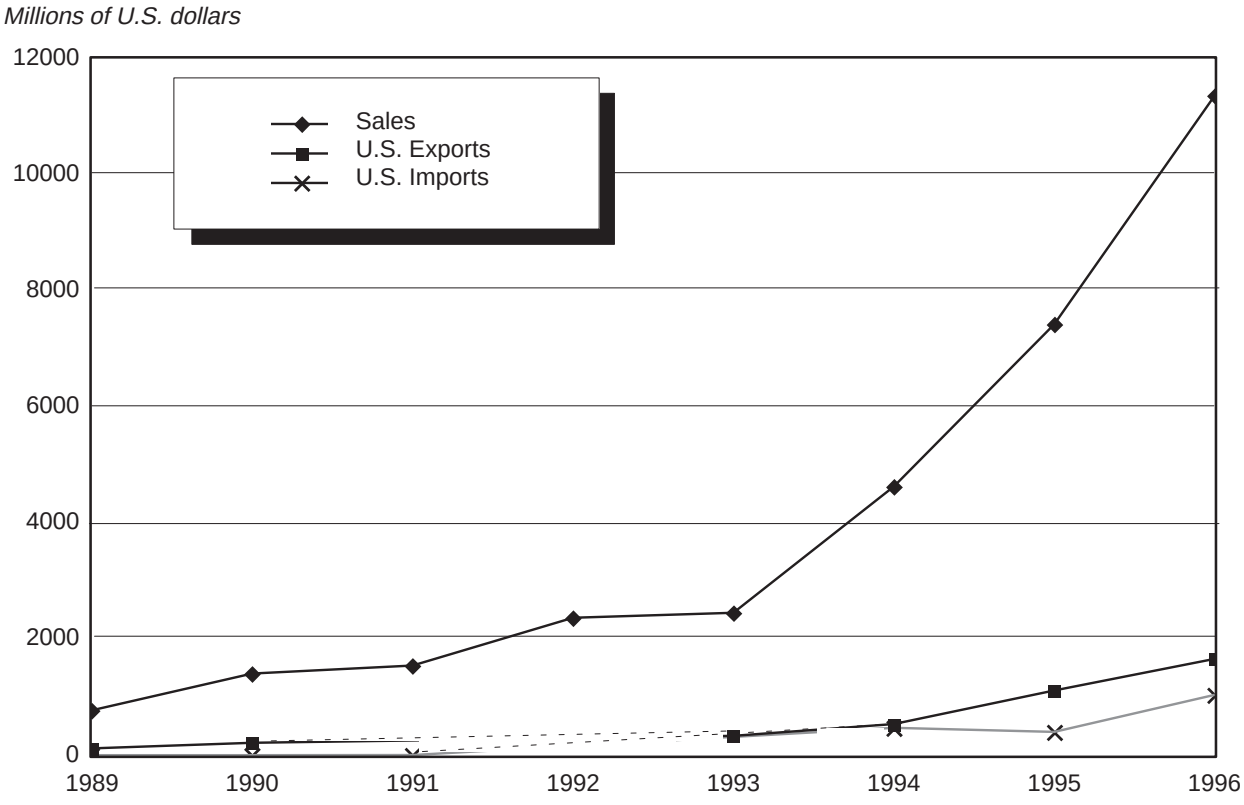
[24] Rosen, *Behind the Open Door*, p. 165.

Table 2-13
Activity of nonbank affiliates of U.S. firms in China, 1989-96

Year	Affiliates	Assets	Sales	U.S. exports to affiliates in China	Share of all U.S. exports to China	U.S. imports from affiliates in China	Share of all U.S. imports from China
	Number	*——*	*Million dollars*	*——*	*Percent*	*Million dollars*	*Percent*
1989	64	1,741	777	122	2.1	3	0.0
1990	66	2,103	1,409	217	4.5	3	0.0
1991	71	1,926	1,549	(D)	(D)	7	0.0
1992	78	2,838	2,370	(D)	(D)	(D)	(D)
1993	84	3,448	2,456	337	3.9	(D)	(D)
1994	225	7,466	7,424	541	5.9	475	1.2
1995	238	9,833	7,423	1,117	9.6	404	0.9
1996	281	13,973	11,362	1,663	14.1	1,043	2.0

Note.—1989 and 1994 are benchmark survey years while other data are from annual surveys. Benchmarking may explain in part the large increase in 1994 values relative to 1993 values. (D) = data suppressed due to disclosure.
Source: U.S. Department of Commerce, *U.S. Direct Investment Abroad*, various years.

Figure 2-5
Sales, exports, and imports of nonbank affiliates of U.S. firms in China, 1989-96



Note.—Dashed line represents data suppressed due to disclosure.
Source: U.S. Department of Commerce, *U.S. Direct Investment Abroad*, various years.

Table 2-14
China's balance of payments, 1991-97

	1991	1992	1993	1994	1995	1996	1997
	Millions of U.S. dollars						
Current account	13,272	6,401	-11,609	6,908	1,618	7,243	29,718
Trade balance: Goods	8,743	5,183	-10,654	7,290	18,050	19,535	46,222
Goods exports, f.o.b.	58,919	69,568	75,659	102,561	128,110	151,077	182,670
Goods imports, f.o.b.	-50,176	-64,385	-86,313	-95,271	-110,060	-131,542	-136,448
Trade balance: Services	2,858	-185	-843	321	-6,093	-1,984	-5,725
Services exports	6,979	9,249	11,193	16,620	19,130	20,601	24,581
Services imports	-4,121	-9,434	-12,036	-16,299	-25,223	-22,585	-30,306
Income	840	248	-1,284	-1,038	-11,774	-12,437	-15,923
Inflows	3,719	5,595	4,390	5,737	5,191	7,318	3,174
Outflows	-2,879	-5,347	-5,674	-6,775	-16,965	-19,755	-19,097
Transfers	831	1,155	1,172	335	1,435	2,129	5,144
Inflows	890	1,206	1,290	1,269	1,827	2,368	5,477
Outflows	-59	-51	-118	-934	-392	-239	-333
Financial and capital accounts	8,032	-250	23,474	32,645	38,674	39,966	22,978
Direct investment	3,453	7,156	23,115	31,787	33,849	38,066	41,673
Inflows	4,366	11,156	27,515	33,787	35,849	40,180	44,236
Outflows	-913	-4,000	-4,400	-2,000	-2,000	-2,114	-2,563
Portfolio investment	235	-57	3,049	3,543	789	1,744	6,804
Assets	-330	-450	-597	-380	79	-628	-899
Liabilities	565	393	3,646	3,923	710	2,372	7,703
Other items, net	4,344	-7,349	-2,690	-2,685	4,035	156	-25,499
Net errors and omissions	-6,767	-8,211	-10,096	-9,100	-17,823	-15,504	-16,818
Overall balance[1]	14,537	-2,060	1,769	30,453	22,469	31,705	35,878
Reserves and related items	-14,537	2,060	-1,769	-30,453	-22,469	-31,705	-35,857
Memo: Total foreign exchange reserves, minus gold	43,674	20,260	22,387	52,914	75,377	107,039	142,762

[1] Current account plus financial and capital accounts plus net errors and omissions.

Source: Adapted from International Monetary Fund, *International Financial Statistics*.

FTC receives a fee from domestic enterprises wishing to import and export. By the end of 1991, there were about 4,000 FTCs, and over 400 production enterprises could trade directly.[25]

The role of state trading companies (STCs)[26] continues to be substantial. STCs operate in both foreign trade and internal distribution, effectively creating barriers to intra-Chinese trade as well as to trade with foreigners (see also chapter 3). In 1994, the percentage of goods handled by STCs was 40 percent, down from 85 percent in 1990. State trading

[25] In most countries, the average tariff rate implied by actual duty collections falls somewhat short of the simple average statutory tariff rate, if for no other reason than imports of products with especially high tariffs tend to be reduced or effectively prohibited. USITC identified 44 cases in 30 countries during 1993-1996 for which both the statutory average tariff rate was reported by UNCTAD and import duties as a percentage of imports were reported by the World Bank. On average, import duties as a percentage of imports were about 64 percent of the statutory average tariff rate. For China during 1993-95, import duties as a percentage of imports ranged from 9 to 14 percent of the statutory average tariff rate, much lower than for any other country for which the calculation could be made. By comparison, in the United States during the same period, import duties collected ranged from 58 to 67 percent of the statutory average tariff.

[26] State trading companies, or enterprises, are governmental and non-governmental enterprises that have been granted special rights or privileges to engage in foreign trade. These types of enterprises are described in greater detail in chapter 3 in the section entitled "State Trading." Despite the large number of trading firms overall, STCs have exclusive trading rights to a limited number of commodities that are believed to be of particular importance to China's economy. For further discussion, see also, William Martin and Christian Bach, "State Trading in China," in Thomas Cottier and Petros C. Mavroidis, eds., *State Trading in the Twenty-First Century* (Ann Arbor: University of Michigan Press, 1998).

companies continue to dominate the importation of such products as grains, cotton, vegetable oils, and petroleum.[27] The frequent requirement for foreigners to seek access to government-mandated distribution channels rather than be allowed to make their own arrangements for domestic distribution of their goods is often cited as a significant barrier to foreign trade (see chapter 5).

Special economic zones

China has set up a number of special economic zones (SEZs), and steered foreign investment towards these zones by a variety of incentives.[28] The original four SEZs, established in 1980, were Shenzhen, Zhuhai, and Shantou in Guangdong province and Xiamen in Fujian province. The location of these zones reflected China's traditional patterns of economic contact with foreigners—Shenzhen and Zhuhai are the Chinese areas nearest to the former British colony in Hong Kong and the Portuguese colony in Macao; Xiamen, about 300 miles to the north of Shenzhen, is located across the Taiwan Strait from Taiwan; and Shantou is about halfway between Shenzhen and Xiamen. These four original zones retain their strategic importance; for example, Shenzhen is the location of one of China's two embryonic stock exchanges (the other one is in Shanghai).

After Deng's February 1984 visit to the SEZs, China designated 14 more coastal cities, including its largest city, Shanghai, as Economic and Technical Development Zones (ETDZs).[29] Hainan, a large sland near Vietnam which constitutes the southernmost part of China, was made an SEZ on its organization as a separate province in 1988. Another important zone is the Pudong New Zone, near Shanghai, designated as such in 1990. The number 1 and geographic scope of SEZs has spread steadily, by local as well as central initiative, with one source[30] reporting 8,700 development zones of various types by 1993. Not all of these have been fully supported by the state—in recent years as many as 1,000 zones which lacked central government authorization have been shut down by the State Council (China's Cabinet). The geographical scope of development zones has expanded over time. Nonetheless, the existing pattern of SEZs and similar zones still serves to impose geographic limits on foreign contact with the Chinese economy, since there are still major differences between conditions for investment in those zones supported by the central government and elsewhere in the country.

Firms within SEZs receive significant tax exemptions. For example, in manufacturing, complete tax holidays for the first year or two of profitability and reductions for some years thereafter are often granted. Foreign investors without such exemptions face a maximum profits tax rate of 33 percent (30 percent central, 3 percent local), which is still less than that on domestic private firms. Foreign firms in SEZs are expected to be export-oriented, and receive duty exemptions on imports of capital goods and raw materials which are reprocessed within the zone.[31] Especially desirable investments from the standpoint of the Chinese authorities, e.g., those with particularly high export orientations or advanced technology, receive greater incentives. The economic zones are also used to geographically restrict those particular types of foreign activity for which the government desires to limit the rate of expansion. For example, the new "experimental" operations of foreign banks must be based in Pudong, and foreign insurance and retail operations are similarly restricted.

Foreign-invested enterprises

China's foreign investment regime allows several types of foreign involvement in enterprises, generally referred to as foreign-invested enterprises (FIEs). The most common form has been the *equity joint venture*. *Wholly-owned foreign enterprises* have become more common in recent years. *Contractual joint ventures* are somewhat simpler to establish, and are used

[27] USTR, *National Estimate of Foreign Trade Barriers 1998*, p. 48.

[28] Rosen, *Behind the Open Door*, pp. 36-39.

[29] The success of SEZs in promoting growth in the originally designated cities spurred other regions to demand similar types of privileges. As a result, several other cities were granted subsets of the rights granted to the SEZs through other forms of preferential treatment, such as the EDTZ. There are several differences between SEZs and EDTZs; however, one important distinction is that sites for SEZs are typically chosen in areas with underdeveloped industrial and technological industries while sites for ETDZs are selected in areas with more advanced levels of industrial, technological, and economic development. For further discussion on this topic, see Wing Thye Woo, "Why China Grew," in Peter Boone, Stanislaw Gomulka, and Richard Layard, eds., *Emerging From Communism: Lessons from Russia, China, and Eastern Europe* (Cambridge: MIT Press, 1998); and Masaru Yoshitomi, "The Comparative Advantage of China's Manufacturing in the Twenty-First Century," in OECD, *China in the 21st Century: Long -term Global Implications* (Paris: OECD, 1996).

[30] Dali L. Yang, *Beyond Beijing: Liberalization and the Regions in China* (London: Routledge Press, 1997), p. 56, cited in Rosen, *ibid.*, p. 37.

[31] Chinese authorities attempted to rescind the duty exemption on foreign capital goods entering SEZs in the mid-1990s at the urging of domestic firms, but retreated from this position after signs of decelerating levels of foreign investment in 1997, as well as the Asian financial crisis in the same year.

primarily for lower-value-added export-processing operations of short duration. A small number of *joint exploration companies* exist, with special provisions pertaining to the extractive industries.

The approval procedure for FIEs is lengthy and involves several stages. It includes negotiations with the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) and/or other ministries for specific industries and local governments and their subunits as well as obtaining a business license and additional permits relating to foreign exchange, bank accounts, housing, and so on. The extent to which incentives are offered or performance requirements imposed (e.g., requirements for export intensity, technology transfer, etc.) depends in part on the negotiating skills of the foreign firm and whether Chinese authorities perceive the investment to be particularly desirable. In the case of joint ventures, the selection of a politically well-placed domestic partner can influence the treatment offered by the Chinese government. The degree of involvement of local versus national authorities varies greatly from project to project.

In December of 1997, China promulgated a "Catalogue For The Guidance of Foreign Investment Industries,"[32] which set forth China's policy preferences with respect to FIEs by sector. Investments in certain sectors are variously categorized as *encouraged*, *restricted*, *prohibited*, and *permitted* (for everything else). The categories are in fact operated as guidelines rather than enforceable rules, and there are examples both of FIEs in prohibited sectors and of applications being turned down although they appeared to fall easily under the rules for encouraged sectors. Further information on the foreign investment regime appears in chapters 4 and 5 of this report.

[32] Translations of this document, under various English titles, appear in Rosen, *Behind the Open Door*, appendix A, and Stephen Dorrough and Guo Linjun, "New Guidelines and Incentives for Foreign Investors," *Topics in Chinese Law* (Hong Kong, Shanghai, Beijing, Washington DC, and other locations: O'Melveny & Myers LLP, February 1998).

CHAPTER 3
Effects on the U.S. Economy of Chinese Non-Tariff Barriers

Introduction

This chapter discusses and analyzes the likely effect on the U.S. economy of China's offer to liberalize certain Chinese non-tariff barriers (NTBs). USTR requested analysis of the effects of the full range of market access commitments, including China's April 1999 offer to eliminate certain NTBs. This analysis covers existing Chinese practices and proposed changes regarding licensing, quotas, tendering, transparency, national treatment, judicial review, state trading, offsets, transfer and protection of technology, local content, export performance, and trade and foreign exchange balancing requirements.

This chapter first provides a summary of findings related to sectors affected by existing NTBs and the likely effects of their removal. Specific NTBs are described, compared with WTO rules, and the likely effect of their removal on U.S. trade and investment is assessed. The assessment for NTBs is based upon an extensive review of available literature, written submissions to the USITC and USTR, as well as interviews with U.S. industry representatives.

In its April 1999 offer, China agreed to concessions in several areas that went beyond its previous draft WTO protocols and concessions found in the annexes. * * *.

* * *. Prior to the April 1999 offer, China had agreed to provide full trading rights and distribution rights to foreign firms with the exception of products reserved for STEs, progressively phasing in these concessions over three years.

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Few efforts have been made to measure the economic effects of Chinese non-tariff barriers. The Institute for International Economics (IIE) estimated tariff-equivalents (TE) for Chinese NTBs for 25 highly protected products (see Table E-1, Appendix E, for data on the TEs).[1] These products accounted for 30 percent of China's imports in 1994. These products were subject to import licensing, quotas, trade limited to certain companies (i.e., state trading and designated trading), and food, plant, and commodity inspection. The estimated TEs ranged from 4.2 percent for wool and wool tops to 111.4 percent for sugar.

The quantitative assessment reflecting the impact on the U.S. economy of China's April 1999 offer found in chapter 7 covers only tariff reductions and does not include the impact of NTBs.[2] This is because necessary data for TEs reflecting China's April 1999 offer are not available. However, the potential impact on the U.S. economy of the removal of NTBs using the TEs for the 25 products mentioned above is estimated in chapter 7 for the scenario applying a 50-percent reduction in 1998 Chinese tariffs. As shown in that analysis, the removal of even these selected non-tariff barriers would have a significant impact on the U.S. economy beyond that from a reduction of a 50-percent cut in 1997 tariff levels. For the base year 1998, the model results suggest that the increase in total U.S. exports would be 60 percent higher beyond the 50-percent reduction in the 1997 tariff level.[3]

Similarly, the small increases in U.S. welfare and gross domestic product would have been 80 to 100 percent higher than the increases generated by tariff

[1] Zhang Shuguang, Zhang Yansheng, and Wan Zhongxin, *Measuring the Costs of Protection in China* (Washington, DC: Institute for International Economics, 1999).

[2] The TEs from the IIE study are for Chinese imports in 1994, and such TEs may not be the same for Chinese imports in 1998. For example, in 1998, China instituted a ban on imports of processed petroleum products and a near ban on wheat imports.

[3] In April 1999, Goldman Sachs, a major U.S. investment banking company, forecasts (methodology not reported) that the elimination of non-tariff barriers in China would "generate an additional US$20-US$30 billion in imports a year." It was not reported how this would specifically affect China's major trading partners, such as the United States. See Fred Hu, Goldman Sachs, *WTO Membership: What This Means for Greater China*, Global Economics Paper No: 14, Apr. 26, 1999, p. 4.

reductions alone. It should be noted that these estimated effects reflect the removal of some, but not all, NTBs in the Chinese economy due to the lack of necessary data on TEs applicable to all the products affected by NTBs. Also, as discussed below, there are overlapping government policies that are applied simultaneously that may reduce the estimated impact of removal of these NTBs.

Summary of Findings

* * * * * * *.

China uses NTBs in conjunction with government policies to foster economic development of so-called "pillar" industries,[4] and to promote technology transfer and foreign investment in other selected sectors of the economy.[5] In "pillar" industries, there appear to be layers of barriers, including high tariffs. In sectors where investment is encouraged, there are fewer barriers, but they are leveraged to encourage technology transfer and investment and to shift both to Chinese ownership.

Because many tariff and non-tariff barriers tend to work together to protect a sector from import competition and/or to encourage sector development and technology acquisition, the likely effects of removing one barrier in isolation from other barriers are extremely difficult to estimate. Table 3-1 summarizes some likely results that would be expected if China were to eliminate the specified NTBs pursuant to its April 1999 offer.

Licensing and Quotas

Description

This analysis combines a discussion of licensing and quotas because these non-tariff barriers overlap in many product sectors. China's April 1999 offer would eliminate licensing and quotas simultaneously for products now subject to both.

Under China's Foreign Trade Law, certain products are subject to quotas and import and/or export licensing. As of mid-1996, all products subject to quotas required an import license, but some products that were not subject to quotas also required import licenses.[6] Products subject to import licensing may be imported only after permission has been granted by the relevant departments under the State Council.[7] A license will then be issued by either the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) Import Quota and License Control Bureau, the local MOFTEC Commissioner's Offices, or licensing authorities at the provincial level. Reportedly, MOFTEC issues most licenses once relevant agencies have already approved the import.[8]

Import quota levels are determined through data collection and negotiation conducted by Chinese central and local government agencies late in the year. "Demand" for products is determined based upon either central or local government needs for particular products in individual projects or the desire to restrict products.[9] Quotas are allocated by central government agencies with eventual distribution nationwide to end-users.[10] Quotas are administered by local branches of the relevant central government agencies. The value or quantity levels of quotas on imported products are not publicized, and there is little transparency.

Licenses are issued based upon the justifications to import given by the applicant stating that the import is necessary and also that the applicant has the necessary foreign exchange. The certificate of import is issued by those authorities which regulate the domestic production of like products. The proof of requisite foreign exchange is a foreign exchange certificate issued by the relevant authorities.[11] Reportedly, the

[4] The Chinese Government has identified certain "pillar" industries to promote with central government funding in order to achieve and maintain economic self-sufficiency. The industries identified are the machinery, electronics, petrochemicals, automobiles, and construction materials industries. U.S. Department of Commerce, Bureau of Export Administration (BXA) and DFI International, "Technology Transfer: Policies, Process, and Decision Making in China," *U.S. Commercial Technology Transfers to the People's Republic of China*, Jan. 1999, p. iii.

[5] Analysis by USITC staff based upon a comparison of China's investment policies by sector and product for licensing, quotas, tendering requirements, and state trading, using information for 1996 and 1998.

[6] WTO, Working Party on the Accession of China, *Communication from China*, WT/ACC/CHN/3, Aug. 16, 1996.

[7] Ministry of Foreign Trade and Economic Cooperation (MOFTEC), Article 19, *Foreign Trade Law of the People's Republic of China*, July 1, 1994, unofficial English translation, found at Internet address http://www.moftec.gov.cn, retrieved May 13, 1999.

[8] United States Trade Representative (USTR), *1998 National Trade Estimate Report on Foreign Trade Barriers*, 1998.

[9] USTR, *1999 National Trade Estimate Report on Foreign Trade Barriers*, 1999.

[10] MOFTEC, Article 20, *Foreign Trade Law of the People's Republic of China*, July 1, 1994, unofficial English translation, found at Internet address http://www.moftec.gov.cn, retrieved May 13, 1999.

[11] EU Market Access Database, information for China, found at Internet address http://mkaccdb.eu.int/, retrieved Jan. 12, 1999.

Table 3-1
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non-tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non-tariff barrier	Sectors affected	Effects
Licensing and quotas License-permission to import a particular product given by the government to importers and issued in the form of a license. Quotas-quantity limits on imports set by the government.	Pillar industries, such as grains, cotton, chemicals, motor vehicles, consumer electronics, cameras, and certain other products.	***Trade***: Increased U.S. export opportunities and reduced trade costs in fees and time. For some sectors, potential benefits may depend on Chinese Government industrial and agricultural policies, as well as the role of state trading enterprises. ***Investment***: Little or no increase in U.S. investment opportunities. Licensing and quotas were used to protect Chinese industry from imports and in order to access the Chinese market, foreign companies would invest in manufacturing in China. With these barriers removed, the incentive to invest in China because of these barriers is significantly reduced.
Tendering A centrally administered procurement process that lacks transparency, is non-competitive, and may be used to limit imports.	Selected machinery and electronics.	***Trade***: Increased U.S. export opportunities due to the competition process becoming more transparent and less controlled. Potential benefits may, in part, depend upon the extent to which Chinese state-owned and state-invested enterprises operate in a commercial manner, as China has committed to in its April 1999 offer. ***Investment***: Little or no increase in U.S. investment as U.S. exporters realize that they are not constrained to produce in China in order to gain an advantage in the tendering process.
National treatment Treating imports on the same basis as domestic products and services.	All sectors.	***Trade***: Increased U.S. export opportunities as mandates for local products are eliminated. Potential benefits may, in part, depend upon the extent to which Chinese state-owned and state-invested enterprises operate in a commercial manner, as China has committed to in its April 1999 offer. In addition, benefits would also depend upon how China implements its industrial policies. ***Investment***: Increased U.S. foreign investment opportunities in China as foreign investors would be allowed to invest in more sectors of the economy.
Transparency Laws, rules, regulations, procedures, and the like readily available to interested parties.	All sectors.	***Trade***: Increased U.S. export opportunities as transparency in the government decision-making process improves-that is, as access to the applicable rules and regulations that govern the process improves and as the ability to observe whether the decision was made in accordance with those rules and regulations improves. This outcome assumes most decisions will be made in accordance with published rules and regulations. ***Investment***: Increased U.S. foreign investment opportunities due to the aforementioned reasons and assumptions with regard to trade.

Table 3-1—*Continued*
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non-tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non-tariff barrier	Sectors affected	Effects
Judicial review Impartial, independent, and accessible review and settlement of disputes.	All sectors.	***Trade***: Increased U.S. export opportunities due to bias removed from the system and improved transparency. ***Investment***: Increased U.S. foreign investment opportunities in China as investors gain confidence about operation of China's trade and investment regime.
State trading Import and export activities limited to either state enterprises or entities designated by the government.	Grains, tobacco, cotton, vegetable oils, sugar, alcoholic beverages, and petrochemicals, as well as rubber, timber, wool, acrylic, and steel.	***Trade***: Increased U.S. export opportunities likely as a result of state trading being liberalized in certain sectors and trading rights for distribution forthcoming. However, WTO enforcement of rules on state-trading enterprises has been low. ***Investment***: Negligible, since foreign investment is generally prohibited or limited.
Offsets Incentive payments used by the seller in order to secure procurement by the buyer. May take many forms, such as investment, technology transfer, co-production, barter, and countertrade.	Aerospace, automobiles, electronics, telecommunications equipment.	***Trade***: Increased U.S. export opportunities, depending upon the degree to which voluntary collaboration replaces government-mandated offsets in sales. ***Investmen***t: Uncertain, since data are not available as to the current degree of investment due to government mandates or U.S. companies' desire to improve customer service or establish a presence in the Chinese market.
Transfer and protection of technology Official or unofficial rules and procedures to coerce transfer of technology. Official rules and mechanisms for the protection of intellectual property rights.	Manufacturing and processing industries.	***Trade***: Increased U.S. export opportunities because the transfer of technology will be increasingly protected in accordance with international norms. This outcome assumes most decisions will be made in accordance with published rules and regulations. ***Investment:*** Increased U.S. foreign investment opportunities in China as investors are not forced to transfer technology and China increases efforts to protect technology. This outcome assumes most decisions will be made in accordance with published rules and regulations.

Table 3-1—*Continued*
Summary of the effects on U.S. trade and U.S. foreign investment of removing certain Chinese non-tariff barriers as a result of China's accession to the WTO, including China's April 1999 offer

Chinese non-tariff barrier	Sectors affected	Effects
Export performance requirements Government requirements stipulating minimum amounts of production that must be exported. Under China's April 1999 offer, China has agreed to go beyond the WTO Agreement on Trade-Related Investment Measures (TRIMS), which does not include export performance requirements.	Manufacturing, including aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile and apparel industries.	***Trade***: Possible decrease in U.S. imports from China. However, U.S. companies may incur costs in reorienting their operations toward the Chinese market. Investment: Increased U.S. foreign investment opportunities in China as export performance requirements may no longer influence the type of investment to be made in China.
Local content requirements Government mandates requiring that production incorporate certain amounts of domestic rather than foreign inputs.	Manufacturing, including aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile and apparel industries.	***Trade***: Increased U.S. export opportunities as foreign or domestic manufacturers in China may then purchase foreign inputs rather than domestic inputs. Potential benefits, however, will depend in part on how China implements its industrial policies. ***Investment***: Fewer U.S. foreign investment opportunities as U.S. companies realize that there will be no official laws and regulations that require the use of local content, and therefore they will have the flexibility to import foreign inputs. However, pressures to use local content are likely to continue to impose operational constraints on U.S. firms.
Trade and foreign-exchange balancing requirements Production ventures are required to balance their foreign trade and foreign exchange so as to limit imports.	Virtually all foreign-invested enterprises in China.	***Trade***: Increased U.S. export opportunities as U.S. firms would be less likely to minimize imports and increase exports from China. ***Investment***: Increased U.S. foreign investment opportunities in China, but tempered by Chinese informal pressure to control trade and foreign exchange flows.

Source: Compiled by the staff of the U.S. International Trade Commission based upon Commission analysis in this chapter.

issuance of licenses follows China's guidelines on investment.[12] These guidelines list the types of activities, industries, and/or products in which investment is encouraged, permitted, restricted, or prohibited.

In 1997, 376 Chinese tariff HS subheadings were subject to import licensing, of which 246 were also subject to import quota management.[13] Reportedly, in early 1999, licensing and quotas covered 25 percent of imports and 20 percent of exports.[14]

[12] Ibid. For China's investment guidance, see China Council for the Promotion of International Trade (CCPIT), *China Business Guide*, Appendix II, "Interim Provisions for Directing Overseas Investment" and "Guide Catalogue of Industries for Foreign Investment," issued by the State Council on Dec. 29, 1997, found at Internet address http://www.ccpit.org/engVersion/cp_infor/cp_cbg/cbg3_3.html, retrieved Feb. 22, 1999.

[13] China Council for the Promotion of International Trade (CCPIT), *China Business Guide*, in Chap. III, Section III, Foreign Trade Management, II. Import Commodity Management, found at Internet address http://www.ccpit.org/engVersion/cp_infor/cp_cbg/cbg3_3.html, retrieved Feb. 22, 1999.

[14] Foreign Broadcast Information Service (FBIS), "New Steps Taken To Reform Foreign Trade," Doc. ID FTS19990309001961, Mar. 3, 1999, found at Internet address http://www.fbis.gov, retrieved Apr. 9, 1999.

For machinery and electronics products subject to quotas, the import license applicant must obtain an "Import Quota Certificate" issued by the State Office for Import and Export of Machinery and Electronic Products (State MEP Office). For other commodities, the applicant must obtain an "Import Quota Certificate for General Commodities" issued by administrating organizations authorized by the State Planning Commission.

For imports free from quota control, the applicant must obtain a "Registration Certificate for Import of Special Commodities" issued by the administrating organization authorized by the State Planning Commission. For the import of carbonic acid drinks, the applicant must have an "Import Certificate" issued by the State Economic and Trade Commission (NETC). For chemicals, approval must be obtained from the Ministry of Chemical Industry.

Although China eliminated import licensing on many products during the 1990s, many of those products are now subject to "automatic registration." Products subject to automatic registration include selected raw materials and import-sensitive commodities.[15] Under automatic registration, importers must secure a certificate of registration for the import of special commodities prior to importation. The certificate is valid for six months. The automatic registration system appeared in April 1994 with the issuance of rules under "Provisional Procedures for Administration of Automatic Registration for Import of Special Commodities."

With the signing of the 1992 Memorandum of Understanding (MOU) Concerning Market Access between China and the United States, China agreed to eliminate all import restrictions, quotas, and licensing requirements on a group of products listed in the annex to the MOU according to a schedule in the annex. According to the USTR, China has removed over 1,000 quotas and licenses on a wide variety of products covering key U.S. exports, as required by the MOU.[16] China also agreed to publish within 90 days of signature of the MOU a list of all organizations delegated authority from the central government for authorizing or approving import licenses; a list was published in mid-1996.[17] The MOU also required that quota amounts be published; however, this has seldom been done, and was not done for tariff-rate quotas established in April 1996 on wheat, corn, rice, soybeans, and vegetable oils.[18] The MOU also required that China not condition the issuance of import licenses upon the transfer of technology or investment requirements, or, subject to the provisions in the MOU annex, the existence of competing domestic suppliers for such products. It is not known to what extent this was done. In addition, the MOU required China to publish its laws and regulations regarding foreign trade, including licenses. China established the MOFTEC gazette as a central repository to carry official texts of all trade-related laws and regulations at the national level. But USTR has noted that its contents are not always complete or timely, and it excludes laws and regulations from other agencies that affect trade.[19] Many of the laws and regulations are now being made available on Chinese Government agency Internet sites in both Chinese and English.[20]

China has maintained export quotas and/or licenses on certain products, but during the 1990s, China reduced the number of products subject to these requirements. Export quotas and licensing requirements cover four types of products. These include staple resource export commodities (such as grains, certain oilseeds, or rare metals); commodities subject to voluntary restraint agreements; commodities subject to foreign quota restrictions (such as apparel products); and important name-brand, high-quality and special commodities where demand and supply imbalances may occur.

Comparison with WTO Requirements

Licensing

WTO rules seek to simplify import licensing procedures, make them transparent, ensure that they are fairly and equitably administered, and prevent the administration of licensing procedures from restricting or distorting imports.

[15] These include grain, vegetable oils, liquor, crude oil, asbestos, color sensitive material, pesticides, plastic raw material, synthetic rubber, fabrics of manmade fibers, steel billets, and steel, copper, and aluminum metals.

[16] These products include telecommunications digital switching equipment, computers, many agricultural products, and medical equipment. USTR, *1999 National Trade Estimate Report on Foreign Trade Barriers*, 1999, p. 55.

[17] FBIS, "Commodity Import Licensing Authorities Detailed," FTS19960611000040, June 11, 1996, found at Internet address http://www.fbis.gov, retrieved May 10, 1999.

[18] USTR, *1999 National Trade Estimate Report on Foreign Trade Barriers*, pp. 55-56.

[19] Ibid., p. 56.

[20] For example, see Internet addresses http://www.cei.gov.cn and http://www.moftec.gov.cn.

The most direct GATT or WTO references concerning licensing requirements are GATT Article VIII (Fees and Formalities connected with Importation and Exportation) and the WTO Agreement on Import Licensing Procedures. GATT Article VIII seeks to reduce any protection for domestic firms and products that may arise by charging excessive fees or unduly complicating import or export procedures for foreign firms.

The WTO Agreement on Import Licensing requires WTO members to provide transparency to items for which they require non-automatic or automatic import licensing.[21] Article 1, paragraph 4 of the Agreement requires WTO members to publish sufficient information regarding import licenses and Article 3, paragraphs 4 and 5 require WTO members to publish the basis for granting or allocating non-automatic licences, as well as information on quota amounts associated with the license.[22] GATT Article VIII requires that fees and charges imposed by WTO members with regard to licensing, among other requirements, should approximate the cost of services provided, and not be excessive.

Quotas

WTO rules most directly applicable to quota requirements are GATT Articles XI and XIII. GATT Article XI prohibits import and export quotas on products arriving from or destined for the territory of any other contracting party. GATT Article XIII sets out parallel requirements to ensure nondiscriminatory application of quotas. Quotas on agricultural products are covered by the WTO Agreement on Agriculture, which seeks to have quantitative restrictions, such as quotas, converted into tariffs or tariff-rate quotas. GATT Article III, National Treatment on Internal Taxation and Regulation, seeks to ensure that laws and regulations do not discriminate against imported products in favor of domestic ones. This would also apply to quotas.

Sectors Most Affected

China's licensing and quotas as listed in its draft WTO Protocol as of mid-1998 are focused on certain sectors. Products that China has subjected to licensing and quotas may be characterized as selected agricultural commodities,[23] raw materials,[24] certain intermediate inputs, products that compete with its nascent industries,[25] and consumer products (table 3-2). Imports and exports of the products may also be reserved for state trading enterprises or for firms designated by the central government. Certain products are also subject to state pricing controls: grains, tobacco, processed petroleum products, urea and ammonium nitrate fertilizers, and cotton. The product sectors subject to licensing and quotas may also be subject to investment guidance that may either encourage or restrict foreign participation to develop or protect that sector better.

Licenses and quotas have been used to institute bans on imports or to control "smuggling." For example, in April 1997, China banned imports of certain nitrogenous fertilizers, including urea and ammonium nitrate, among other fertilizers.[26] The ban was implemented through quotas, a 3-percent tariff, and the elimination of import subsidies that allowed imported product to compete with lower-priced Chinese products.[27] The ban was due to the influx of

[21] Article 1 of the WTO Agreement on Import Licensing defines import licensing as administrative procedures, referred to as "licensing" and similar administrative procedures, "used for the operation of import licensing regimes requiring the submission of an application or other documentation (other than that required for customs purposes) to the relevant administrative body as a prior condition for importation into the customs territory of the importing Member."

Automatic import licensing is defined in Article 2 of the Agreement as "import licensing where approval of the application is granted in all cases," and "shall not be administered in such a manner as to have restricting effects on imports subject to automatic licensing."

Non-automatic import licensing is defined in Article 3 of the Agreement as licensing falling outside the definition of automatic licensing. Non-automatic licensing "is used to administer trade restrictions such as quantitative restrictions which are justified within the WTO legal framework." WTO, "WTO–A Training Package," found at Internet address http://www.wto.org/wto/eol/e/wto03/wto02_61.htm, retrieved May 13, 1999.

[22] GATT Article X is the general article requiring WTO members to publish their laws, regulations, judicial decisions, and administrative rulings pertaining to trade.

[23] For example, sugar imports are subject to licensing. James William Johnson, Jr., on behalf of the American Sugar Alliance, written submission to the Commission, Mar. 10, 1999.

[24] Although import quotas and licensing requirements on certain solid wood and pulp products were eliminated in 1995, the American Forest and Paper Association reported that "import quotas continue to exist and are being traded like stock certificates. This causes great uncertainty and confusion among exporters to China." Maureen R. Smith, Vice President International, American Forest and Paper Association, written submission to the Commission, Mar. 10, 1999.

[25] William T. Archey, American Electronics Association, written submission to the Commission, Mar. 9, 1999.

[26] U.S. International Trade Commission, *Ammonium Nitrate: A Comparative Analysis of Factors Affecting Global Trade*, (investigation No. 332-393), USITC publication 3135, Oct. 1998, pp. 3-27.

[27] Ibid.

Table 3-2
Products subject to licensing and quotas compared with state trading, designated trading,[1] and investment guidance

Product	Licensing[2]	Quotas[2]	State trading: imports/ exports[3]	Designated trading[3]	Investment guidance[4]
Selected agriculture:					
Grains	Yes	Yes	Imports/ exports	No	Restricted: Chinese party to have controlling stake or leading position.
Vegetable oils	Yes	Yes	Imports	No	Restricted: No further detail available.
Sugar	Yes	Yes	Imports	No	Encouraged: Development of high-yielding sugar-bearing crops.
Raw materials:					
Petroleum and petroleum products	Yes	Yes	Imports/ exports	No	None mentioned.
Fertilizer	Yes	Yes	Imports	No	None mentioned.
Rubber	Yes	Yes	No	Yes	Encouraged: Certain synthetic rubber.
Wool	Yes	Yes	No	Yes	Restricted: Wool spinning.
Cotton	Yes	Yes	Imports/ exports	No	Restricted: Chinese party to have controlling stake or leading position.
Man-made fibers	Yes	Yes	No	Yes	Restricted: For some products, wholly foreign-owned operations are not allowed.
Nascent industries:					
Air-conditioning and refrigeration machinery	Yes	Yes	No	No	Restricted: Chinese party to have controlling stake or leading position.
Engines	Yes	Yes	No	No	Restricted: Chinese party to have controlling stake or leading position.
Certain textile machinery	Yes	Yes	No	No	Encouraged: Production of complete sets of new-type knitting machines.

See footnotes at end of table.

Table 3-2—*Continued*
Products subject to licensing and quotas compared with state trading, designated trading,[1] and investment guidance

Product	Licensing[2]	Quotas[2]	State trading: imports/ exports[3]	Designated trading[3]	Investment guidance[4]
Nascent industries—*Continued*					
Motor vehicles	Yes	Yes	No	No	Restricted: Chinese party to have controlling stake or leading position.
Microscopes	Yes	Yes	No	No	None mentioned.
Consumer products:					
Beverages and distilled spirits	Yes	No	No	No	Restricted: No further detail available.
Tobacco products .	Yes	Yes	Imports	No	Restricted: No further detail available.
Photographic films .	Yes	No	No	No	Restricted: No further detail available.
Video camera recorders (VCRs), tape players and recorders, camcorders . . .	Yes	Yes	No	No	Restricted: No further detail available. Encouraged: Production of compatible digital TV, HDTV, and digital tape recorders/players.
Color TVs and parts, including TV tubes	Yes	Yes	No	No	Restricted: No further detail available. Encouraged: Production of compatible digital TV, HDTV, and digital tape recorders/players.
Radios	Yes	Yes	No	No	Restricted: Certain products.
Cameras	Yes	Yes	No	No	Restricted: No further detail available.

[1] In designated trading, the Chinese Government authorizes only certain firms to engage in international trade.
[2] ***.
[3] From WTO, Annex 3 to China's draft protocol, WT/ACC/CHN/3, Aug. 16, 1996.
[4] People's Republic of China, *Catalogue of Industries for Foreign Investment*, effective Jan. 1, 1998.

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

imported product, combined lower consumption in 1995 and 1996, that shut down several then recently constructed fertilizer plants.[28] In another example, in September 1998 China suspended imports of diesel fuel and gasoline, to "safeguard the normal production and operational order of domestic petrochemical enterprises."[29] Import quotas and issued licenses for these fuel products were suspended. In September 1998, MOFTEC issued a supplemental anti-smuggling circular which stated that authorities should strictly enforce quota restrictions on commodities such as cotton, wool, vegetable oils, natural rubber, and sugar.[30] These commodities are used as inputs in finished products which are re-exported. Chinese authorities did not want these imported inputs to be diverted for sale onto the domestic market or used to produce finished products for the domestic market, because these imports would undercut the prices of domestically-produced inputs.

Effects on U.S. Trade

China's April 1999 offer furthers an earlier offer in July 1998 to eliminate licenses and quotas generally within 5 years of the entry into force of its WTO protocol. * * *. For quotas, in its April 1999 offer, China agreed to * * *. All quotas will grow by 15 percent annually (a previous Chinese commitment) until the quota is eliminated.[31] * * *. Table 3-3 presents China's April 1999 offer with regard to licensing and quotas. It also presents data on China's imports from the United States and total imports from all sources in 1998. Chinese imports of U.S. products subject to licensing and quotas covered by the April 1999 offer declined from $2.9 billion (18 percent of total imports from the United States) to $2.0 billion (12 percent) between 1996 and 1998; and total imports from all sources, declined from $18.1 billion (or 13 percent of total imports) to $13.0 billion (9 percent) in that period.

Removal of licensing and quotas will affect only certain products. Many products subject to licensing and quotas, such as sugar, rubber, wool, and consumer electronics such as color TVs, VCRs, tape players, and cameras, are not major U.S. exports. Therefore, U. S. exports are likely to benefit from the removal of licensing and quotas to the extent of participation in these markets.

The simultaneous application of new barriers or other types of barriers, such as automatic registration and product labeling and registration, would limit the benefits of China's April 1999 offer on licenses and quotas. For example, the American Iron and Steel Institute notes that steel consumers desiring to import steel must register in advance and in each jurisdiction into which they wish to import.[32] The Cosmetic, Toiletry, and Fragrance Association reported that China has special labeling requirements that are more stringent than those found in most major and developing markets.[33] Potential or existing barriers also include the existence of high tariffs, lack of distribution rights, restrictions on trading rights, and reservations for state trading. The Distilled Spirits Council of the United States expressed concerns about high tariffs, trading rights, distribution restrictions, and intellectual property rights concerns, but not concerns about licensing or quotas.[34] Similarly, JBC International, on behalf of the Wine Institute and the California Association of Wine Grape Growers (CAWG), cited problems with high Chinese tariffs, value added taxes, registration for wineries before exporting to China, state trading, and labeling as principal problems, but not licensing and quotas.[35]

* * * * * * *.

Neither the Commission's model nor industry representatives nor other proxies were available to permit a reasonable estimate of the effect of the removal of China's licensing and quota restrictions on U.S. exports and investment, except as provided above. Inability to provide estimates reflects the fact that more than one policy may be a trade barrier in any industry simultaneously, and for some product sectors, Chinese Government industrial and agricultural policies, as well as the activities of state trading enterprises, have the ability to influence the extent of benefits that might be realized by U.S. exporters.

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[28] Ibid.

[29] FBIS, "Diesel Fuel, Gasoline Imports Suspended," FTS19980929000335, Sept. 18, 1998, found at Internet address http://www.fbis.gov, retrieved Apr. 9, 1999.

[30] FBIS, "MOFTEC Issues Supplement to Anti-Smuggling Circular," FTS19980930001628, Sept. 9, 1998, found at Internet address http://www.fbis.gov, retrieved Apr. 9, 1999.

[31] WTO, Annex 3, *Non-Tariff Measures Subject to Phased Elimination, July 1998*, WTO/ACC/CHN/16.

[32] Thomas R. Howell, Dewey Ballantine LLP., on behalf of American Iron and Steel Institute, written submission to the Commission, Feb. 22, 1999.

[33] Louis Santucci, Vice President, International, Cosmetic, Toiletry, and Fragrance Association, written submission to the Commission, Mar. 8, 1999.

[34] Distilled Spirits Council of the United States, written submission to the Commission, Mar. 8, 1999.

[35] JBC International, on behalf of the Wine Institute and the California Association of Wine Grape Growers, written submission to the Commission, Mar. 9, 1999.

Table 3-3
China's licensing and quotas: China's April 1999 offer, phase-in completion date,[1] China's total imports from all sources, and imports from the United States, 1998

Product	* * *	* * *	Chinese imports: Total, all sources	Chinese imports: From the United States
Subject to licensing only:				
Wheat	* * *	* * *	$278.6 million	$57.9 million
Corn	* * *	* * *	$31.7 million	$24.0 million
Rice	* * *	* * *	$120.0 million	$0.3 million
Vegetable oils	* * *	* * *	$1,297.3 million	$257.7 million
Liquor	* * *	* * *	$11.8 million	$0.1 million
Film	* * *	* * *	$49.7 million	$10.8 million
Total	* * *	* * *	$1,789.1 million	$350.8 million
Subject to licensing and quotas:				
Sugar	* * *	* * *	$144.5 million	$0.1 million
Tobacco	* * *	* * *	$35.1 million	$0.4 million
Wool and wool tops	* * *	* * *	$605.0 million	$4.7 million
Cotton	* * *	* * *	$357.0 million	$186.1 million
Processed petroleum oils	* * *	* * *	20.4 mmt ($1,991.3 million)	.35 mmt ($29.6 million)
Sodium cyanide	* * *	* * *	.014 mmt ($16.6 million)	.002 mmt ($1.9 million)
Chemical fertilizer	* * *	* * *	13.9 mmt ($2,517.9 million)	5.3 mmt ($1,227.8 million)
Polyethylene terephthalate slices or chips	* * *	* * *	.281 mmt ($198.9 million)	.002 mmt ($2.6 million)
Natural rubber	* * *	* * *	.430 mmt ($319.5 million)	111 thousand tons ($0.1 million)
Tires of rubber used on automobiles	* * *	* * *	1.2 million pieces ($15.8 million)	39,010 pieces ($0.3 million)
Polyester yarn	* * *	* * *	.501 mmt ($759.6 million)	.005 mmt ($17.0 million)
Synthetic filament row	* * *	* * *	.098 mmt ($123.4 million)	.003 mmt ($3.9 million)
Synthetic staple fibers	* * *	* * *	.898 mmt ($1,045.2 million)	.012 mmt ($17.3 million)
Automobiles and key parts	* * *	* * *	$868.3 million	$85.3 million
Motorcycles and key parts	* * *	* * *	$95.2 million	$0.1 million
Color TV set and TV	* * *	* * *	$1,433.5 million	$39.6 million
Recorders and transport mechanisms	* * *	* * *	$163.1 million	$0.3 million
Refrigerators and compressors	* * *	* * *	$99.3 million	$11.6 million
Washing machines	* * *	* * *	$0.2 million	-
Recording apparatus and key parts	* * *	* * *	$243.4 million	$0.5 million
Cameras	* * *	* * *	$2.7 million	$0.1 million
Wrist watches	* * *	* * *	$40.4 million	-
Air conditioners and compressors	* * *	* * *	$119.3 million	$27.2 million

Table 3-3—*Continued*
China's licensing and quotas: China's April 1999 offer, phase-in completion date,[1] China's total imports from all sources, and imports from the United States, 1998

Product	* * *	* * *	Chinese imports: Total, all sources	Chinese imports: From the United States
Subject to licensing and quotas—*Continued*				
Magnetic sound and video recording apparatus	* * *	* * *	$0.6 million	-
Crane lorries and chassis	* * *	* * *	$31.7 million	-
Microscopes	* * *	* * *	$10.4 million	$1.8 million
Rotor spinning frames	* * *	* * *	$0.5 million	-
Electronic color scanners	* * *	* * *	$0.4 million	-
Total	* * *	* * *	$11,238.8 million	$1,658.3 million
Grand total	* * *	* * *	$13,027.9 million	$2,009.1 million

[1] Quotas will grow by 15 percent annually until eliminated.
[2] * * *.
[3] * * *.
[4] * * *.

Source: Compiled by the staff of the U.S. International Trade Commission from Chinese April 1999 offer and Chinese trade data from GTI Corp., *World Trade Atlas*, China, 1998, CD-ROM.

Effects on U.S. Foreign Investment

In many instances, investment into many sectors is guided by China's state planning policies. Eliminating licensing and quotas by itself is likely to have limited effect on U.S. foreign investment in China, as other barriers probably will remain after WTO accession, including high tariffs in some sectors,[36] that may inhibit U.S. investment. Many foreign firms have invested in China in order to overcome licensing and quota barriers. If the barriers were removed, incentive to invest in China would be gone, and these firms could access the Chinese market through exports.

State Trading

Description

State trading enterprises (STEs) are governmental and non-governmental enterprises which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports.[37] This definition covers a broad range of applicable entities, from state-owned enterprises granted monopoly positions over particular industries to private firms accorded special rights unavailable to other firms in the same sector, that influence trade flows through their buying and selling activities.[38] Common types of STEs are statutory marketing boards, export marketing boards, regulatory marketing boards, fiscal monopolies, canalizing agencies,[39] foreign trade enterprises, and boards or corporations resulting from nationalized industries. STEs are used to protect against low-priced imports, assist domestic producers in selling overseas, and ensure adequate levels of certain commodities.[40] STEs may also be

[36] * * *.

[37] Understanding on the Interpretation of Article XVII of the General Agreement on Tarriffs and Trade 1994.

[38] WTO, "The World Trade Organization: A Training Package," under the section titled "Goods: Other Rules," World Trade Organization, found at Internet address http://www.wto.org/wto/eol/e/world.htm, retrieved Feb. 11, 1999.

[39] The term "canalizing agency" is used by many developing countries to describe the STEs they maintain. State traded goods are channeled, or "canalized," through designated product-specific enterprises. These enterprises strive to maintain price stabilization and adequate supplies of commodities. Ibid., retrieved May 11, 1999.

[40] U.S. General Accounting Office, *State Trading Enterprises: Compliance with the General Agreement on Tariffs and Trade*, GAO/GGD-95-208, Aug. 1995, p. 7.

used, however, as an outlet for the implementation of foreign governments' industry-related policy objectives.[41]

China's foreign trading system is characterized by extensive state trading and the selective granting of foreign trade rights.[42] In general, to engage in foreign trade in China, an enterprise must receive approval from the State Economic and Trade Commission and MOFTEC. In some cases, for example with respect to firms under the control of local government agencies, foreign trade rights are obtained through local government offices. China currently limits the number of enterprises that legally can import and export; however, the number and types of entities granted trading rights have increased significantly over the past two decades. Initially, foreign trade in China was controlled by approximately 12 state trading companies. While the number of trading houses gradually increased, state-operated companies remained solely responsible for foreign trade throughout the 1980s.[43] Trading rights were then extended to state and collective enterprises, and in 1996, China approved, on a trial basis, the first Sino-foreign joint venture trading companies in the areas of Shanghai and Shenzhen.[44] China further liberalized foreign trading rights in 1999;[45] the Chinese government announced that an additional 6,000 Chinese manufacturing firms would be given permission to engage in import-export activities,[46] and 61 private enterprises were allocated trading rights for the first time in the history of the People's Republic of China.[47] Currently, there are approximately 8,000 state trading houses and 22,000 state-owned and collectively owned firms in China that have the right to engage in foreign trade.[48] With the exception of foreign-invested enterprises engaged in local manufacturing, which may import inputs and export their production, foreign companies are not permitted to engage in international trade in China.[49]

In addition to the initiatives noted above, China has announced potential reforms for the future liberalization and decentralization of its state trading and trading rights systems. Reportedly, China intends to replace the current approval system for the allocation of trading rights with a registration system to be phased in within several years of entry into the WTO.[50] Further, under WTO negotiations, China has agreed to extend full trading rights to U.S. entities for most commodities within three years of accession.[51] Under the draft protocol, China has agreed to liberalize trading rights for natural rubber, timber, plywood, wool, acrylic, and steel (229 separate products currently traded through designated companies) within three to five years of becoming a WTO member. Thus, Annex 2a of the 1996 draft protocol indicated that

[41] For example, STEs may provide protection for domestic producers of a particular product by setting the resale prices of imports at very high levels. WTO, "The World Trade Organization: A Training Package."

[42] For a discussion of China's state-trading regime, see William Martin and Christian Bach, "State Trading in China," chap. 14 in Thomas Cottier and Petros C. Mauroidis, eds., *State Trading in the Twenty-First Century* (Ann Arbor, MI: University of Michigan Press), 1998.

[43] Gao Wei, "Private Firms Get Foreign Trade Rights," *China Daily*, Jan. 5, 1999, found at Internet address http://www.chinadaily.com.cn/, retrieved, Mar. 22, 1999.

[44] A total of 5 Sino-foreign trading joint ventures had been established as of Sept. 4, 1998, 3 in the Pudong New Area in Shanghai and 2 in the Shenzhen Special Economic Zone. One of the companies established in Shenzhen (the Sino-American OCT International Trading Co. Ltd.) joined Dow Chemical of the United States with the Shenzhen OCT Petroleum Trading Group. Li Wenfang, "Shenzhen Sets Up Foreign Trade JVs," *China Daily*, Sept. 4, 1998, found at Internet address http://www.chinadaily.comcn/, retrieved, Jan. 21, 1999.

[45] China reportedly undertook such actions for two reasons—to boost exports due to economic difficulties in the region caused by the Asian financial crisis and to bring China's trading system closer in line with international practices.

[46] FBIS, "Beijing Acts to Support Waning Export Growth," *Hong Kong South China Morning Post (China Business Review)*, Jan. 14, 1999, FTS19990114000096.

[47] As of Feb. 9, 1999. Reportedly, the 61 firms are engaged in the following industries: machinery and electronics, construction materials, handicrafts, food and beverages, medicines, metallurgy, textiles and garments, fireworks and information, farm produce and by-products, animal feed, agricultural development, light industry, and computer software development. Only private enterprises with registered capital and net assets of approximately $1 million or more and that have supplied commodities worth $1 million or more to trading companies during the past two years are eligible for trading rights. FBIS, "Twenty Private Firms Tackling International Market," Beijing Xinhua (in English), Jan. 17, 1999, FTS19990117000355; and "PRC to Grant Another 41 Private Firms Trading Rights," Beijing Xinhua (in English), Feb. 9, 1999, FTS19990209000552.

[48] Gao Wei, "Private Firms Get Foreign Trade Rights," and China Ministry of Foreign Trade and Economic Cooperation, "Q&A on China's Foreign Trade and Economic Cooperation," found at Internet address http://www2.moftec.gov.cn/html/questions_answers/14-1.html, retrieved Mar. 21, 1999.

[49] U.S. and Foreign Commercial Service and U.S. Department of State, *Country Commercial Guide FY 1999: People's Republic of China*, found at Internet address http://www.state.gov, retrieved Feb. 1, 1999.

[50] Reportedly, a registration system for the allocation of trading rights has already been established for manufacturing enterprises in the special economic zones of Shenzhen, Zhuhai, Shantou, Xiamen, and Hainan. Asia-Pacific Economic Cooperation, 1997 Deregulation Report for China, found at Internet address http://www.apecsec.org.sg/deregulation/prc.html, retrieved Feb. 1, 1999.

[51] Paragraph 5, WTO, Draft Protocol on China, 1997.

China would control imports of 66 products[52] and exports of 18 specific items[53] through roughly a dozen state trading houses.

* * *.[54] With regard to certain agricultural products subject to state-trading, China committed to partial liberalization of trading rights for certain * * *, whereby a percentage of the tariff-rate quota (TRQ) applied to these products will be reserved for STEs, * * *.[55] It is uncertain as to whether China will make similar guaranteed share commitments for * * *.[56]

Comparison with WTO Requirements

The establishment and maintenance of STEs is not prohibited under the WTO. However, in order to curtail the potential for trade distortion due to foreign government involvement in the decisions and activities of STEs, WTO rules call for STEs to behave in the same nondiscriminatory manner as private, competitive traders. GATT rules addressing STEs are in Article XVII (State Trading Enterprises), where the Contracting Parties agreed that:

> *a State enterprise ... shall, in its purchases or sales involving either imports or exports, act in a manner consistent with the general principles of non-discriminatory treatment prescribed in this Agreement for governmental measures affecting imports and exports by private traders. {GATT Art. XVII:1}*

As part of the Uruguay Round Agreements, all WTO Members are required under Article XVII of GATT 1994 to submit annual notifications of their state trading activities, with the Working Party on State Trading Enterprises being established to review these notifications to ensure the transparency of the activities of state trading enterprises. New and full notifications by Members were required first in 1995 and every third year thereafter, with updates on changes in the intervening years.

Sectors Most Affected

While the relaxation of restrictions on trading rights in China has altered the traditional monopolistic position held by many of China's trading houses, commodities that are central to the Chinese economy are still predominantly imported and exported through STEs. Such products include wheat, corn, rice, tea, tobacco, cotton vegetable oils, petroleum, and petrochemicals. A list of known commodities traded through state trading houses and designated trading companies and trade data pertaining to these items are presented in tables 3-4 through 3-7. The degree to which these product categories are affected, as well as an indication of what other products are affected by state trading may be intimated from the list of China's top import-export companies reported each year by MOFTEC. Top traders in 1997 included China Chemical Import and Export Corp.; China Petro-Chemical International Co.; China National Oil, Cereals, and Food Stuff Import and Export Corp.; China National Technical Import and Export Corp.; China Aviation Supplies Import and Export Corp.; China International United Petroleum and Chemicals Co. Ltd.; and China National Metals & Minerals Import and Export Corp.[57]

In addition, industry sources indicate that U.S.-China trade in citrus, semiconductors, fibers, telecommunications equipment, rubber products, luggage and leather goods, electronics, processed food products, construction equipment, and software is also affected by state trading practices.[58]

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[52] As listed in Annex 2a-1 of draft protocol, dated July 1996, these items fall under the following commodity sectors: grains, vegetable oils, sugar, tobacco, crude oil, processed oil, chemical fertilizer, and cotton.

[53] As listed in Annex 2a-2 of draft protocol, dated July 1996, these items fall under the following commodity sectors: tea, maize, soybeans, tungsten ore, ammonium paratungstates, tungstate products, coal, crude oil, refined oil, silk, unbleached silk, cotton, cotton yarn, cotton fabric, antimony oxide, and antimony products.

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[56] * * * * * * *.
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[57] Some of these companies also operate subsidiaries involved in foreign trade. Zhang Yan, "Sinochem No. 1 in China's Top 500," *China Daily*, Aug. 4, 1998, found at Internet address http://www.chinadaily.com.cn/, retrieved, Jan. 21, 1999; and Xu Ren, "Banks Help Exporters Overcome Crisis Effects," *China Daily*, Aug. 4, 1998, found at Internet address http://www.chinadaily.com.cn/, retrieved, Jan. 21, 1999.

[58] U.S. industry representatives, written submissions to the Commission, Mar. 8-9, 1999.

Table 3-4
China's imports covered by state trading, by products, 1996-98

Product	Total, all sources			From the United States					
				Total			Percent of total		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
	Million dollars						*Percent*		
Ammonium paratungstates	69	74	59	9	9	7	12	12	12
Chemical fertilizers	3,563	2,994	2,518	1,178	1,123	1,228	33	38	49
Cotton	1,260	1,393	357	802	716	186	64	51	52
Crude petroleum	3,407	5,456	3,199	17	115	80	(1)	2	3
Grains (wheat, corn, rice)	2,250	504	430	562	42	82	25	8	19
Processed petroleum	2,019	3,112	1,994	22	33	30	1	1	2
Sugar	391	230	145	(1)	(1)	(1)	(2)	(2)	(2)
Tobacco	61	84	35	1	-	(1)	(2)	-	1
Vegetable oils	1,490	1,473	1,298	36	179	258	2	12	20
Total	14,440	15,246	9,976	2,619	2,208	1,864	18	15	19

[1] Less than 0.5 percent.
[2] Less than $500,000.

Source: Compiled by the staff of the U.S. International Trade Commission from data from GTI Corp., *World Trade Atlas, China, 1998*, CD-ROM.

Table 3-5
China's exports covered by state trading, by products, 1996-98

Product	Total, all sources			From the United States: Total			From the United States: Percent of total		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
	Million dollars						*Percent*		
Ammonium paratungstates	69	74	59	9	9	7	12	12	12
Antimony oxides	114	117	77	20	24	20	18	21	26
Antimony products	70	3	4	19	2	2	27	64	65
Coal	1,109	1,133	1,068	-	([1])	2	-	-	([2])
Cotton	14	5	59	([1])	([1])	([1])	([2])	([2])	([2])
Cotton yarn, less than 85 percent cotton by weight	25	32	25	([1])	([1])	([1])	([2])	([2])	([2])
Cotton yarn, 85 percent or more cotton by weight	423	442	375	2	4	2	([2])	1	([2])
Crude petroleum	2,789	2,734	1,528	370	335	216	13	12	14
Maize	30	856	532	-	([1])	-	-	([2])	-
Processed petroleum	820	1,119	676	11	22	23	1	2	3
Silk	461	464	389	4	4	3	1	1	1
Soybeans	66	-	-	([1])	-	-	([2])	-	-
Tea	122	156	218	6	5	6	5	3	3
Tungsten ore	2	2	([1])	([1])	1	-	6	37	-
Tungsten products	75	71	114	13	13	13	18	19	11
Unbleached silk	371	390	287	12	8	11	3	2	4
Woven fabrics of cotton, less than 85 percent cotton by weight	157	119	67	19	26	14	12	22	21
Woven fabrics of cotton, 85 percent or more cotton by weight	632	639	513	87	87	63	14	14	12
Total	7,349	8,357	5,992	570	539	380	8	6	6

[1] Less than $500,000.
[2] Less than 0.5 percent.

Source: Compiled by the staff of the U.S. International Trade Commission from data from GTI Corp., *World Trade Atlas, China, 1998*, CD-ROM.

Table 3-6
China's imports covered by designated trading, by products, 1996-98

Product	Total, all sources			From the United States: Total			From the United States: Percent of total		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
	Million dollars						*Percent*		
Acrylic	959	886	663	51	46	17	5	5	3
Natural rubber	720	448	320	([1])	([1])	([1])	([2])	([2])	([2])
Plywood	276	233	238	1	1	([1])	([2])	([2])	([2])
Steel	2,907	2,782	2,836	57	64	61	2	2	2
Timber	498	721	732	49	80	76	10	11	10
Wool	857	783	605	8	9	5	1	1	1
Total	6,218	5,852	5,394	165	201	158	3	3	3

[1] Less than $500,000.
[2] Less than 0.5 percent.

Source: Compiled by the staff of the U.S. International Trade Commission from data from GTI Corp., *World Trade Atlas, China*, *1998*, CD-ROM.

Table 3-7
China's exports covered by designated trading, by products, 1996-98

Product	Total, all destinations			From the United States: Total			From the United States: Percent of total		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
	Million dollars						*Percent*		
Acrylic	260	368	274	1	([1])	([1])	([2])	([2])	([2])
Natural rubber	42	48	14	-	([1])	([1])	-	([2])	([2])
Plywood	14	48	22	([1])	4	6	1	8	29
Steel	632	615	602	54	83	91	9	14	15
Timber	220	216	125	1	1	([1])	([2])	([2])	([2])
Wool	46	87	59	-	([1])	([1])	-	([2])	([2])
Total	1,214	1,381	1,096	56	88	98	5	6	9

[1] Less than $500,000.
[2] Less than 0.5 percent.

Source: Compiled by the staff of the U.S. International Trade Commission from data from GTI Corp., *World Trade Atlas, China, 1998*, CD-ROM.

Effects on U.S. Trade

Anecdotal evidence suggests that China's state trading practices and policy of limiting import-export rights to select domestic firms have significantly hindered U.S. exports to China. U.S. industry sources indicate that the high level of state involvement in approved trading companies and the monopolistic positions given to certain Chinese trading firms over specific industries have allowed the Chinese government to exercise direct control over the types, quantities, and prices of U.S. goods delivered to China.[59] This system of central control over trade in certain industries has reportedly hindered U.S. firms' access to the Chinese market.[60] Moreover, although a number of traditional monopolies have been dissolved due to the increased distribution of trading rights among Chinese entities, industry sources note that in some cases, control over trade in commodities has simply been disseminated to subsidiaries of former monopolistic firms.[61] In addition, state control over trade in China appears to have confined some U.S. producers to niche markets. For example, a U.S. rubber products manufacturer operating in China reports that it cannot import various U.S.-made articles to supplement its line of products manufactured in China. As a result, the company reports that it is unable to realize its full sales potential in the Chinese market for rubber products.[62] Further, the obstacles presented by state trading and restricted trading rights have completely dissuaded some U.S. companies from even attempting to access the Chinese market for their products.[63]

In addition to the effect on U.S. export volumes, forced trading through designated companies directly adds to the cost of U.S. goods exported to China. U.S. industry representatives note that Chinese trading companies charge a fee of between one to five percent of the total cost of goods delivered.[64] This charge is generally passed on to the consumer; thus, the mandatory use of Chinese trading companies often affects the price competitiveness of U.S. exports to China.[65] Moreover, U.S. firms report that the lack of direct trading rights hinders customer service, slows product delivery, and may lead to smuggling and grey market activity due to the unfulfilled demand for U.S. products resulting from managed import levels.[66]

China's accession to the WTO should alleviate some of the difficulties facing U.S. exporters, as trading rights and the number of industries controlled by STEs are liberalized. U.S. exports of those key products targeted for complete or partial liberalization will likely increase, and U.S. producers may encounter a greater degree of ease and transparency in dealing with an increased number of private and foreign-invested trading entities. At the same time, liberalization will not be immediate and some import and export commodities will remain subject to state trading even after China has satisfied its obligations concerning WTO accession. Further, while China would face mandatory reporting requirements concerning the activities of its STEs as a WTO member, compliance with the reporting order among current WTO members has historically been low.[67] Such reporting requirements may also prove to be an unworkable task for China considering the volume of trade activity that may involve state trading.[68] Thus, it is conceivable that transparency with respect to China's state trading activities and STE conformity with WTO state trading rules may not be significantly enhanced by WTO accession.

Effects on U.S. Foreign Investment

While a number of U.S. companies have invested in China to circumvent non-tariff barriers on U.S. direct exports, no companies have explicitly specified state trading or restrictive trading rights as the reasons for their participation in joint ventures or other types of investment in China. Moreover, the types of products generally controlled by STEs are sectors in which foreign direct investment is an impractical

[59] American Oilseed Coalition, American Sugar Alliance, and National Food Processors Association, written submission to the Commission, Mar. 9, 1999.

[60] Semiconductor Industry Association, written submission to the Commission, Mar. 9, 1999.

[61] JBC International, written submission to the Commission, Mar. 9, 1999.

[62] The Gates Rubber Company, written submission to the Commission, Mar. 9, 1999.

[63] National Food Processors Association, written submission to the Commission, Mar. 9, 1999.

[64] Construction Industry Manufacturers Association and American Electronics Association, written submissions to Commission, Mar. 9, 1999.

[65] Construction Industry Manufacturers Association and Luggage and Leather Goods Manufacturers of America, written submissions to the USITC, Mar. 9, 1999.

[66] Construction Industry Manufacturers Association, American Electronics Association, and Distilled Spirits Council of the United States, written submissions to the Commission, Mar. 8-9, 1999; and USTR, *1998 National Trade Estimate Report on Foreign Trade Barriers*, p. 48.

[67] U.S. General Accounting Office, *State Trading Enterprises: Compliance with the General Agreement on Tariffs and Trade*, GAO/GGD-95-208, Aug. 1995, p. 3.

[68] Paul McKenzie, "China's Application to the GATT: State Trading and the Problem of Market Access," *Journal of World Trade* (Oct. 1990), p. 137.

alternative to direct trade with China or is restricted by Chinese investment regulations. Sectors where direct foreign investment may be impractical include grains, sugar, cotton, tea, and silk. Sectors where foreign investment may be restricted include tobacco, petroleum products, fertilizers, tungsten products, coal mining, antimony, and textile fibers. Upon WTO accession, China has agreed gradually to liberalize trading rights. As liberalization during the three-year transition period is likely to include the increased extension of import and export rights to foreign-invested trading companies, U.S. investment in these types of operations may increase in the short term.

Offsets

Description

Offsets are compensation packages required by foreign governments as a condition of purchase for military[69] and commercial products. While offsets are normally considered a compensatory practice used in conjunction with commodity purchases, China has reportedly demanded offset compensation as a condition of approval for foreign investment. The definition of offsets has also been interpreted to include compensation practices involving sales to companies that are owned to a large extent by the government, such that the government has control over the purchases of the company, as well as voluntary industrial participation agreements tied to sales between private commercial entities.[70] As the latter may occur in the absence of government pressures, however, there is considerable disagreement over use of the term "offsets" to describe voluntary international collaboration that involves practices comparable to those used in mandatory offset agreements.[71]

Offsets generally take the form of mandatory coproduction, licensed production, subcontractor production, technology transfer, countertrade, or foreign investment but may also include such compensatory measures as training, marketing assistance, or research assistance. Offsets may be direct or indirect. Direct offsets refer to compensation directly related to the product sold, such as a subcontracting arrangement whereby the foreign country produces parts for the exported item. Indirect offsets refer to compensation unrelated to the exported product, for example, countertrade or foreign investment by entities from the exporting country in an unrelated industry in the purchasing country.

Foreign governments pursue offsets for a variety of reasons. Offsets help alleviate the financial burden of large purchases and are a method by which the host country can obtain high-level technology, sustain or augment domestic employment, and advance certain key industries. A seller generally enters into an offset agreement for market access or as a competitive tool to secure large or important sales that might otherwise go to another foreign competitor. In negotiating an offset agreement, the purchasing country generally asks for an offset package worth a percentage of the total value of the sales contract; in some cases the value of the offset package a country receives may exceed 100 percent of the total value of the original sale. The purchasing country uses multipliers to calculate the value of offsets offered by the seller in order to apply credit toward the total offset obligation; a high multiplier may be used to calculate the value of high level technology transfer or production work in key industries,[72] while a low multiplier may be used to calculate offset credit for less desirable compensatory practices. In China, key industries would include its "pillar" industries.

Offsets are a concern in international trade because they interfere with the market forces that would otherwise drive global sales transactions. In addition, there is concern that offsets may create new competitors through technology transfer and training[73] or have negative effects on domestic employment due to the transfer of work overseas. At the same time, those involved in offering offsets see them as a

[69] U.S. military sales to China were banned in June 1989, following events in Beijing's Tiananmen Square. Therefore, this section focuses exclusively on commercial offset agreements between the United States and China.

[70] See National Research Council, *Trends and Challenges in Aerospace Offsets* (Washington, DC: National Academy Press, 1999); National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop* (Washington, DC: National Academy Press, June 1997); and International Association of Machinists and Aerospace Workers, testimony before the Commission, Feb. 23, 1999.

[71] See National Research Council, *Trends and Challenges in Aerospace Offsets*; National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*; and Trade Promotion Coordinating Committee, *The National Export Strategy: Cornerstone for Growth*, fifth annual report to Congress, Oct. 1997, pp. 52-53.

[72] The use of high multipliers can result in the calculated value of offset credits ranging from 2 to 10 times greater than the actual value of the work performed. National Research Council, *Trends and Challenges in Aerospace Offsets*, p. 43.

[73] National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, p. 7; and Trade Promotion Coordinating Committee, *The National Export Strategy: Cornerstone for Growth*, p. 58.

necessary competitive practice that can preserve trade-related employment and secure revenues for further investment in new technologies. In addition to posing a competitive challenge to existing producers, there is concern that the emergence of new competitors through overseas sourcing and production offsets may result in overcapacity in industries, which in turn can lead to depressed prices and sales.[74]

A formal offset policy for defense purchases has been in effect in China since 1988.[75] However, the Chinese Government has no apparent formal requirements or published laws concerning civil offsets. Nonetheless, China aggressively seeks offset compensation when negotiating non-military purchases and often includes an expressed preference for offsets in bidding documents for nationally and internationally funded procurement.[76] Further, China's offset demands have steadily increased both in terms of quantity and quality; China requires a greater number of offsets and seeks to obtain state-of-the-art technology and more sophisticated manufacturing experience than in the past.[77] With respect to administration of this non-tariff measure, offsets may be negotiated by a variety of Chinese Government agencies or state-owned enterprises, depending on the industry involved. For example, contract negotiations for large civil aircraft purchases that include offset provisions generally involve Aviation Industries of China, a state holding company that oversees China's aerospace industry.

It is crucial to note, however, that while U.S. manufacturers involved in the military sector are required to provide information on offset transactions to the U.S. Government, mandatory reporting requirements do not exist for U.S. firms involved in civil offset agreements. Moreover, few companies desire to reveal the details of commercial sales contracts.[78] As a result, there is a dearth of information concerning the customary policies, practices, and parties involved in Chinese Government-mandated offsets in the civil sector.

Comparison with WTO Requirements

* * * mandatory offsets demanded of foreign sellers, which are not required of domestic producers, may violate GATT Article III (National Treatment on Internal Taxation and Regulation). The core of GATT Article III is national treatment for foreign goods (and under the GATS for foreign services), goods which are to receive treatment "no less favorable" than like domestic products:

> *4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favorable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. {GATT Art. III:4}*

At the same time, GATT Article III:8(a) stipulates an exception to the national treatment rules where government procurement is involved for products destined for government purposes that will not be commercially sold.

> *8. (a) The provisions of this Article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale. {GATT Art. III:8(a)}*

As a consequence, government procurement by state enterprises need not accord national treatment to foreign suppliers of products that might be destined, for example, for national defense purposes. However, if state enterprises are procuring products ultimately destined for commercial sale, then the national treatment provisions of Article III would apply.

The concept of offsets is typically associated with the subject of government procurement, and can form an important share of total government expenditure with significant bearing on the domestic economy. In addition, governments may seek to promote additional

[74] National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, pp. 2, 10-11.

[75] Trade Promotion Coordinating Committee, *National Export Strategy: Toward the Next American Century*, fourth annual report to Congress, Oct. 1996, p. 160.

[76] National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, p. 37; and USTR, *1998 National Trade Estimate Report on Foreign Trade Barriers*, p. 52.

[77] U.S. Department of Commerce, BXA, *U.S. Commercial Technology Transfers to the People's Republic of China*, Jan. 1999, pp. ii-v; and U.S. International Trade Commission, *The Changing Structure of the Global Large Civil Aircraft Industry and Market: Implications for the Competitiveness of the U.S. Industry*, USITC publication 3143, Nov. 1998, pp. 5-4 to 5-7.

[78] Trade Promotion Coordinating Committee, *The National Export Strategy: Cornerstone for Growth*, fifth annual report to Congress, Oct. 1997, p. 53.

domestic policy goals through their purchasing decisions, for example, the promotion of local industrial sectors or businesses. The WTO describes some of the major non-tariff barriers involved in government procurement as follows:

> *Measures to this effect may be either explicitly prescribed in national legislations, for example prohibitions against the purchase of foreign goods or services or from foreign suppliers, preference margins, set-asides and offsets, or in the form of less overt measures or practices which have the effect of denying foreign products, services and suppliers the opportunity to compete in domestic government procurement markets, including excessive use of selective tendering, non-open technical specification requirements and, in particular, lack of transparency in tendering procedures including contract awards. Such discriminatory government procurement procedures and practices can lead to distortions in international trade.*[79]

Offsets are explicitly mentioned and prohibited under the WTO plurilateral Agreement on Government Procurement in Article XVI:1, defining offsets in footnote 7:

> *1. Entities shall not, in the qualification and selection of suppliers, products or services, or in the evaluation of tenders and award of contracts, impose, seek or consider offsets.*[7] *{AGP Art. XVI:1}*
>
> *7 Offsets in government procurement are measures used to encourage local development or improve the balance-of-payments accounts by means of domestic content, licensing of technology, investment requirements, counter-trade or similar requirements.80 {AGP Art. XVI:1}*

Article XVI nonetheless allows developing countries to negotiate, at the time of their accession, conditions for the use of offsets provided these are used only for the qualification to participate in the procurement process and not as criteria for awarding contracts (Article XVI:2).[81] USTR indicated that China's accession to the WTO did not encompass accession to the WTO Agreement on Government Procurement, so government procurement issues were not at issue as part of this report's non-tariff measures analysis. However, the concepts and definitions under the agreement—regarding such matters as offsets but also the transparency of project tendering—do apply more broadly to procurement of goods and services by China's state trading enterprises when these products are destined for commercial resale.

The United States is a signatory to two agreements—one plurilateral, the other bilateral—restricting the use of government-mandated offsets in trade in civil aircraft. WTO members may become signatories to the plurilateral GATT agreement on this subject at their discretion. Article IV:3 of The GATT Agreement on Trade in Civil Aircraft states:

> *3.Signatories agree that the purchase of products covered by this Agreement should be made only on a competitive price, quality and delivery basis. In conjunction with the approval or awarding of procurement contracts for products covered by this Agreement a Signatory may, however, require that its qualified firms be provided with access to business opportunities on a competitive basis and on terms no less favorable than those available to the qualified firms of other Signatories. {Art. IV:3}*

Offsets are also explicitly mentioned and prohibited under the 1992 U.S.-EU Agreement on Trade in Large Civil Aircraft in Article IV:3 concerning mandatory subcontracts:

> *3.By emphasizing that the only factors which should be involved in purchase decisions are price quality and delivery terms, the signatories agree that Article 4.3 does not permit Government-mandated offsets. Further, they will not require that other factors, such as subcontracting, be made a condition or consideration of sale. Specifically, a signatory may not require that a vendor must provide offset, specific types or volumes of business opportunities, or other types of industrial compensation. {Art. IV:3}*

[79] WTO, "Introduction," *Overview of the Agreement on Government Procurement*, found at Internet address http://www.wto.org/wto/govt/over.htm retrieved Feb. 16, 1999, par. 1.

[80] WTO, "Agreement on Government Procurement," URAA documents, p. 1751.

[81] WTO, "Introduction," *Overview of the Agreement on Government Procurement*.

Sectors Most Affected

China is particularly explicit and aggressive in demanding civil offsets in the commercial aerospace industry.[82] Aerospace offset agreements with China accelerated in the 1980s and have regularly expanded along with China's purchases of commercial aircraft.[83] Chinese aerospace industry officials state that because the country's large purchases of U.S.-built aircraft sustain employment in the United States, China expects reciprocity via offsets that place work in China's aerospace industry.[84] One Chinese aircraft producer notes that their industrial collaboration with large civil aircraft producers such as Boeing is largely because of offset trade.[85] China's direct offset requirements in the aerospace sector include not only the location of production work in China, but also technology transfer, training, and research cooperation. Moreover, contracts accompanied by civil offset requirements, particularly those related to coproduction and technology transfer, are expected to increase in number and degree in the future,[86] particularly as China is considered the largest potential market for commercial aircraft.[87]

The complexity of offsets and lack of detailed information concerning civil offset agreements make it difficult to identify clearly other key sectors affected by offset arrangements with China. Sectors most likely affected are those commercial industries designated by the Chinese Government as strategically important or priority areas for industrial development. It is in these industries, for example electronics and telecommunications,[88] that China seeks to obtain high level technology transfer, sophisticated training, extensive production agreements, and foreign investment or joint-venture support from U.S. manufacturers via mandatory offsets. At the same time, the varied types of offset arrangements and diversity of compensation packages offered mean that a number of peripheral as well as unrelated sectors are affected as well. For example, anecdotal evidence concerning offsets in the aerospace sector reveals that mid-tier suppliers, firms that provide components and raw materials for engine and parts production, are more negatively affected by offsets than U.S. prime airframe manufacturers.[89] Moreover, indirect offsets, for example agreements to market Chinese-produced goods in the United States, may affect any number of industries unrelated to the product being exported. On the other hand, in cases where an offset contract includes subcontracting provisions or an agreement on countertrade, domestic industries may not be affected at all if the products involved are normally purchased from third country suppliers.

Effects on U.S. Trade

It appears that U.S. participation in offset agreements with China has resulted in greater exports of U.S. products, increased U.S. imports of related inputs, and overall growth in U.S. employment in certain sectors. However, a complete assessment of the effects of offset agreements with China is hindered by inadequate existing data resulting from the absence of mandatory reporting requirements combined with a low level of voluntary disclosure concerning the details of commercial offset agreements. Moreover, such an assessment is hampered by: 1) problems in identifying government-mandated offsets as opposed to voluntary "offset-like" arrangements between U.S. and foreign entities; 2) difficulty in assessing the effects of offsets on employment, trade, and investment, versus the effects of general globalization, changes in demand, and other industry trends or external factors;[90]

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[82] International Association of Machinists and Aerospace Workers, written submission to the Commission, Mar. 9, 1999; National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, p. 24; and National Research Council, *Trends and Challenges in Aerospace Offsets*, p. 107.

[83] With respect to production agreements, U.S. aerospace firms have sourced numerous parts and assemblies from China over the past two decades, gradually expanding the number of contracts and technical level of work packages placed in Chinese factories. USITC, *The Changing Structure of the Global Large Civil Aircraft Industry and Market*, p. 5-13.

[84] Chinese aerospace industry officials, interview by USITC staff, Beijing, China, May 5, 1998.

[85] Chinese aerospace industry officials, interview by USITC staff, Xi'an, China, May 7, 1998.

[86] U.S. Department of Commerce, BXA, *U.S. Commercial Technology Transfers to the People's Republic of China*, Jan. 1999, pp. 55, 59-60.

[87] See pamphlet titled, "U.S. & China Trade: What's on the Line?" The Boeing Company, April 1997; and "1998 Current Market Outlook," Boeing Commercial Airplane Group, June 1998. Boeing anticipates delivering 1,800 aircraft to China during 1998-2017.

[88] As opposed to procurement, offset-like restrictions in the telecommunications industry are reportedly tied to foreign direct investment. Robert F. Dodds, Jr., "Offsets in Chinese Government Procurement: The Partially Open Door," *Law and Policy in International Business* (Summer 1995), pp. 1133-1136.

[89] National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, p. 6; and National Research Council, *Trends and Challenges in Aerospace Offsets*, p. 87.

[90] For example, aerospace exports and employment levels have largely been affected by decreases in defense spending, consolidation in the aerospace industry, supplier integration, increased outsourcing abroad, increased productivity, and trends in air traffic.

3) problems in identifying the effects of indirect and direct offsets given the variety of industries and number of sub-tier producers that may be involved; and 4) difficulty in determining the net effect of offsets without knowledge of whether a sale would or would not have taken place in the absence of an offset agreement.

The limited quantitative analysis that has been done on the effects of offsets is specific to the aerospace sector, global in scope, and confined to an assessment of the impact of production offsets[91] and general international outsourcing on employment. The limited data available covers offset agreements with all countries, so job losses from offset agreements with China would represent only a fraction of the total. This analysis estimated that during 1994-98, 10,219 U.S. jobs in the aerospace sector[92] and 7,644 non-aerospace jobs were eliminated as a result of increased foreign outsourcing; a total of 46,083 aerospace jobs and 34,470 non-aerospace jobs are expected to be lost by 2013.[93] Reportedly, offset agreements account for roughly 3 percent of total outsourcing;[94] thus, the aggregate decline in aerospace and non-aerospace employment due exclusively to offsets would equal an estimated 1,185 jobs for the period 1994-98, and 2,417 jobs for 1994-2013.

Critics note that the above analysis fails to consider the increase in employment that may result from exports won through offset concessions.[95] For example, exports of aircraft to China during 1994-98 grew by 88 percent, from $1.7 billion to $3.1 billion. Reportedly, $1 billion in sales translates into 24,000 person years of employment;[96] thus, deliveries of U.S.-built aircraft to China during this period (totaling $8.8 billion) resulted in an estimated total of 211,200 years of employment in the aerospace sector. Other figures suggest that every $1 billion in exports equals 11,000 jobs, which would put job creation from U.S. exports of aircraft to China during 1994-98 at 98,600 jobs.[97] The lack of detailed information on sales transactions makes it impossible to discern what percentage of U.S. exports of aircraft to China resulted from contracts accompanied by offset requirements. However, a comparison of the market shares of Boeing (70 percent) and Airbus (30 percent)[98] in China with the respective amount of industry collaboration and production placed by each producer in Chinese aircraft factories suggests that a sizeable portion of U.S. sales to China were characterized by either mandatory or voluntary offsets.[99] Further, industry sources note that voluntary and mandatory offsets have the greatest impact on the level of U.S. imports of aircraft parts and components.[100] During 1994-98, such imports from China grew by 56 percent, from $25 million to $39 million, reflecting increased outsourcing from China. It is likely that part of this increase resulted from production agreements due to offsets. While the overall net impact on employment due to increased exports of aircraft and imports of parts is impossible to calculate without more complete data, industry sources suggest that the ratio of job retention resulting from overseas sales to job loss due to outsourcing is 100:1.[101] As noted, the net effect of offsets on U.S. trade with China cannot be assessed given the lack of detailed information concerning sales contracts and uncertainty about whether a sale would or would not have taken place in the absence of an offset package.

* * *[102] assuming that China were to agree to adhere fully to disciplines concerning non-tariff measures, government procurement, and aerospace trade, it is conceivable that voluntary collaboration will simply replace government-mandated offsets in sales between U.S. firms and the Chinese Government and state-run enterprises. Voluntary offsets may also be expected to increase if the Chinese market becomes more accessible, given the degree of competition between foreign companies for sales in the Chinese

[91] As noted above, production offsets may include licensed production, coproduction, production as a subcontractor, or any other arrangement which involves foreign production of a portion of the exported product.

[92] This includes both civil and military work.

[93] See Robert Scott, "The Effects of Offsets, Outsourcing, and Foreign Competition on Output and Employment in the U.S. Aerospace Industry," in National Research Council, *Trends and Challenges in Aerospace Offsets*, pp. 133-157.

[94] Industry representatives, remarks at a forum in conjunction with the release of *Trends and Challenges in Aerospace Offsets*, National Academy of Sciences, Washington, DC, Mar. 5, 1999.

[95] This may include employment related to production of the exported product, sub-tier production, and employment associated with follow-on work for the exported item. National Research Council, *Trends and Challenges in Aerospace Offsets*, p. 42; and National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, pp. 10, 30.

[96] National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, p. 5.

[97] Ibid., p. 6.

[98] Chinese aerospace industry officials, interview by USITC staff, Beijing, China, May 5, 1998.

[99] The amount of production work and other collaborative arrangements undertaken by U.S. aircraft producers in China appears to greatly exceed that of European aircraft producers. See U.S. International Trade Commission, *Large Civil Aircraft Industry and Market*, pp. 5-6, 5-13 to 5-14.

[100] National Research Council, *Trends and Challenges in Aerospace Offsets*, p. 146.

[101] National Research Council, *Policy Issues in Aerospace Offsets: Report of a Workshop*, p. 6.

[102] Ibid., p. 25.

market and the increased level of privatization occurring in China's industrial sector.

Although China agreed to eliminate a number of performance requirements, such as trade and foreign exchange balancing, local content, and export performance requirements, China did not agree to eliminate the offset requirements. However, China did agree in its April 1999 offer not to condition the distribution of licenses, quotas, or tariff-rate quotas and other import approvals upon the provision of performance requirements, including offsets, technology transfer, local content requirements, and requirements to conduct research and development in China.

Effects on U.S. Foreign Investment

Information concerning the impact of offsets on U.S. foreign investment in most sectors is largely unavailable. With respect to aerospace, however, industry sources indicate that aerospace offsets rarely take the form of mandatory foreign investment.[103] This assertion is supported by the apparent moderate level of investment in China's aviation infrastructure by U.S. aerospace firms. Boeing, for example, operates a parts depot in Beijing and has made some contributions to the development of aviation infrastructure in China. Pratt & Whitney and Allied Signal are partners in joint ventures in China for parts manufacturing and parts repair, respectively. However, it is unclear whether these limited arrangements were undertaken to fulfill mandatory offset commitments. Such collaboration may be strictly voluntary, resulting from the company's desire to improve customer service or establish a presence in the Chinese market. Under China's April 1999 offer, China has agreed not to condition investment approvals on offsets or other types of non-tariff measures.[104]

[103] Ibid., p. 34

[104] USTR, "Market Access Commitments of the Government of China on Goods, Services, and Agriculture," Apr. 8, 1999, found at Internet address http://www.ustr.gov/releases/1999/04/ch-memo.html, retrieved Apr. 12, 1999.

Transfer and Protection of Technology

Description

Technology transfer occurs when technological know-how or expertise is passed on from one user to another. Voluntary paid technology transfer can take on one of the three following forms:[105]

- An assignment or license of patent rights or other industrial property rights;
- The provision of know-how such as production processes, formulas, product designs, quality control; or,
- The provision of technical services.[106]

In China the two main issues concerning the transfer of technology relate to requirements to transfer technology as a condition for approval of an investment or import contract agreement, and the protection of that technology once it is transferred.

China has several laws and regulations that establish the requirements for the transfer of technology in relation to technology import contracts or investment contracts (wholly foreign-owned or joint venture), as seen below in table 3-8. Although the national and local requirements are for the most part the same, national rules supercede where there are conflicts. Companies must comply with both the national and local rules when transferring technology through the above-mentioned means.

The importation or licensing of technology in China is voluntary and is governed by national rules and regulations. In contrast, companies wishing to establish a stronger presence in China through a wholly-owned subsidiary or an equity joint venture

[105] David Ben Kay, Beth Bunnell, and Michael Lin, "Chapter 7: Technology Transfer," *Intellectual Property Protection in China: Practical Strategies* (Hong Kong: Asia Law & Practice Ltd., 1996), p. 150.

[106] Technology transfer can also take the form of uncompensated imitation of product or process technologies, i.e., piracy, which is discussed further in this section relating to the protection of intellectual property rights (IPR).

Table 3-8
China's major national and local laws governing technology transfer

Law or regulation	Effective date	Coverage
	National Laws	
Law on Joint Ventures Using Chinese and Foreign Investment ("Joint Venture Law")	1979 revised 1990	Governs the operation and requirements for joint ventures in China.
Regulations for the Implementation of the Law on Joint Ventures Using Chinese and Foreign Investment ("Joint Venture Implementing Regulations")	1983 amended 1986	Implements the law governing the operation and requirements of joint ventures in China. Article 4 lays out specific technology transfer requirements.
Administration of Technology Contracts Regulations (the "Technology Import Regulations")	1985	Governs all acquisitions of technology by companies except those involving technology contributed as capital in a joint venture arrangement.
Law on Enterprises Operated Exclusively with Foreign Capital ("WOFEs Law")	1986	Governs the operation and requirements for Wholly-Owned Foreign Enterprises (WOFEs) in China.
Detailed Rules for Implementing the Law on Enterprises Operated Exclusively with Foreign Capital ("Detailed Rules")	1990	Implements the law governing the operation and requirements for WOFEs in China. Articles 3, 10 and 15 specifically mention technology requirements.
Provisional Regulations on Guiding the Direction of Foreign Investment	1996	Identifies the sectors where foreign investment will be allowed, focusing on agriculture, energy, telecommunications, raw materials, and advanced technology.
Catalogue for Guiding Foreign Investment in Industries	1996 revised 1997	Part of the Provisional Regulations that identifies the specific industries which are "encouraged," "permitted," or "prohibited" for investment in China.
	Local Laws	
Guangzhou Economic and Technological Development Zone Concerning the Introduction of Technology Interim Regulations ("the Guangzhou Provisions")	([1])	Governs technology imports in the Guangzhou Economic and Technological Development Zone.
Shenzhen Special Economic Zone Governing the Import of Technology Provisional Regulations ("the Shenzhen Provisions")	([1])	Governs technology imports in the Shenzhen Special Economic Zone.
Regulations on the Import of Technology to the Xiamen Special Economic Zone ("the Xiamen Provisions")	([1])	Governs technology imports in the Xiamen Special Economic Zone.
Shanghai Municipality Administration of Patent Licensing Contracts Procedures (the "Shanghai Patent Procedures")	1987	Governs patent licensing contracts in Shanghai.

[1] Not available.

Source: Compiled by the staff of the U.S. International Trade Commission from Ministry of Foreign Economic Relations and Trade, People's Republic of China, *Detailed Rules for Implementing the Law of the People's Republic of China on Enterprises Operated Exclusively with Foreign Capital*, promulgated on December 12, 1990, found at Internet address http://www.sfisc.com/en/dzfxze.html, retrieved Jan. 28, 1999, and David Ben Kay, Beth Bunnell, and Michael Lin, "Chapter 7: Technology Transfer," *Intellectual Property Protection in China: Practical Strategies*, (Hong Kong: Asia Law & Practice Ltd., 1996), pp. 149-150.

must comply with explicit requirements.[107] In accordance with the requirements laid out in Article 3 of the Detailed Rules, the wholly foreign-owned corporation has the option of either transferring technology or maintaining a certain export performance level, either of which is subject to approval by MOFTEC. Article 3 also states that in order to establish a wholly foreign-owned enterprise the foreign company must be economically beneficial to China, as well as either use advanced technology and equipment to develop new products, preserve energy and raw materials, upgrade existing products, and/or substitute for imports or maintain export performance requirements. Articles 10 and 15 require that the foreign company provide information on objectives, scope, infrastructure requirements, production equipment, production technology, level of process technology, and source of supply, among other information, to the local government.

Because wholly foreign-owned companies can choose between transferring technology and a certain level of export performance, they have some freedom in this aspect of the investment decision. In contrast, companies entering into joint ventures are explicitly required to transfer technology. According to Article 4 of the Joint Venture Implementing Regulations, applicants wishing to establish a joint venture must comply with several of the following requirements:[108]

- Adopt advanced technical equipment and scientific management which enable the increase of the variety of products, the increase of quality and output, and the conservation of energy and materials;
- Provide benefits in terms of technical renovation of enterprises and result in less investment, quicker returns and larger profits;
- Enable the expanded production of products for export and result in increased foreign currency income; or
- Enable the training of technical and managerial personnel.

Information requirements for joint venture applications are similar to those required for wholly foreign-owned applications, and both types of applications are subject to approval by MOFTEC or the relevant provincial, municipal, or autonomous regional government entity.

Technology transfer in China has a long tradition, as the government has attempted to improve and advance the country economically and technologically. Although the laws that explicitly require the transfer of technology were not promulgated until the late 1980s and early 1990s, the development of science and technology as a priority dates back to 1949 with policies established under Deng Xiaoping to develop industrial and military sectors through the implementation of "major tasks."[109] The modern era of science and technology policy did not actually begin until 1978 with the announcement of the "Four Modernizations" program, which initially focused on centrally planned programs that were compulsory, government funded, and directed at medium and large state-owned enterprises (SOEs) with little success or sustainability. Over time, these programs have evolved into government guidance programs rather than mandates.[110]

In the 1980s, the Chinese government began to target the commercialization and use of new technologies by linking research with industrial applications, traditionally separate operations, and by encouraging the industrial sector to support these activities financially. During the mid 1990s, several incentive programs were established to accomplish these goals through the philosophy of "anchor at one end and let the other end be free," linking the state ("anchor") and industrial and commercial ("free") sectors in technology advancement and economic development efforts. Incentive programs were developed to promote basic research in advanced industrial technologies, to develop and apply new technologies in the agricultural sector, and to apply

[107] English copies of the laws and implementing regulations can be found on the MOFTEC Internet site found at Internet address http://www.moftec.gov.cn under the section on laws and regulations.

[108] State Council, People's Republic of China, *Regulations for the Implementation of the Law of the People's Republic of China on Joint Ventures Using Chinese and Foreign Investment*, promulgated Sept. 20, 1983 and amended Jan. 15, 1986, found at Internet address http://www.sfisc.com/en/hzfxze.html, retrieved Jan. 28, 1999.

[109] At this time there was very few accomplishments with commercial value. Achievements were made in the development of missile and nuclear weapons programs with most of the technology transfers coming from the former Soviet Union. U.S. Department of Commerce, BXA and DFI International, "Technology Transfer: Policies, Process, and Decision Making in China," *U.S. Commercial Technology Transfers to the People's Republic of China*, Jan. 1999, p. 3.

[110] Ibid.

technologies developed through basic research projects.[111]

In order to disseminate information about technological advances and research to government, industry, academic and scientific institutions, National Engineering Research Centers (NERCs) were established throughout the country with a total of 200 NERCs expected by the year 2000.[112] The Chinese Academy of Sciences (CAS) also has over 100 institutions in the country to support technology commercialization efforts. All of these efforts exemplify China's determination in technology acquisition and innovation both in the past and through the turn of the century.

While technology transfer is only explicitly required by companies wishing to establish a joint venture, it is also often an implicit requirement of doing business in China.[113] Additionally, companies are often convinced to transfer more advanced technology than would otherwise be transferred based on market forces or China's ability to absorb the appropriate technology.[114] Frequently, companies donate equipment or funds for training and education or establish an institution, center, or laboratory devoted to joint research and development in order to achieve approval of a joint venture manufacturing partnership or facility. The initiative to form joint research agreements with Chinese institutions is a recent trend and involves many high-tech U.S. firms, such as IBM, Intel, and Bell Labs.[115] U.S. industry indicates that problems arise because of the explicit or implicit requirements to transfer technology.

Proper enforcement of intellectual property rights (IPR) is required to protect the technology once it is transferred. Bilateral agreements, including the U.S.-China Memorandum of Understanding on the Protection of Intellectual Property Rights signed in January 1992, the U.S.-China Agreement on Providing Intellectual Property Rights Protection signed in February 1995, and the U.S.-China Agreement on Intellectual Property Rights signed in June 1996, have addressed past IPR issues and reinforced the need to protect technology in China. As a result of increased awareness of the importance of protection of intellectual property, China has enacted several laws and regulations and has become a signatory to diverse international conventions since 1982 in order to bring its intellectual property protection in line with international standards and the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (see table 3-9).

The most relevant laws and conventions related to technology transfer requirements are those that protect patents, including those that protect plant varieties, chemicals, pharmaceuticals, and agricultural products. Specific measures taken by China in order to provide protection of patents in line with international standards have included amendments to its Patent Law, a new set of Patent Law Implementing Regulations in 1992, and regulations concerning the protection of new plant varieties in 1997.[116] The changes to the patent law included an extension of protection of patents to the international requirement of 20 years and inclusion of protection for chemical and pharmaceutical inventions.[117]

China expanded its legislative and institutional framework and vowed to increase enforcement efforts beginning in 1989, as already mentioned.[118] U.S. companies still face the risk of legal or illegal use of the transferred technology when a licensing agreement expires or violation of their IPR by other means, and uncertain recourse for violations in a confusing judicial system. For example, official regulations entitled "Administration of Technology Import Contracts" mandate that technology licensing agreements are limited to 10 years unless special permission is given by MOFTEC to extend the contract length. Additionally, the Chinese laws treat the contract as an installment sale enabling the licensee the free use of the technology when the contract expires.[119] Confusion and overlap of responsibility by several

[111] "PRC State Council $Decision on Accelerating S&T Development,'" report from the U.S. Embassy, Beijing, Nov. 1996, found at Internet address http://www.usembassy-china.gov/english/sandt/stdec2.htm, retrieved Feb. 8, 1999.

[112] Ibid., p. 7.

[113] As cited in Daniel H. Rosen, "Technology and Research and Development Requirements," *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace*, p. 71.

[114] Min Chen, "Technological Transfer to China: Major Rules and Issues," *International Journal of Technology Management*, vol. 10, Nos. 7/8 (1995), pp. 750-751.

[115] See U.S. Department of Commerce, BXA and DFI International, "Technology Transfer: Policies, Process, and Decision Making in China," *U.S. Commercial Technology Transfers to the People's Republic of China*, pp. 29-32, for a list of U.S. companies that have donated equipment, provided funding for scholarship/training, and sponsored R&D/Technology Centers in China.

[116] U.S. Department of State telegram, "Chinese Report on Status of Intellectual Property," message reference No. 8936, prepared by U.S. Embassy, Beijing, June 2, 1998.

[117] Michael N. Schlesinger, "Intellectual Property Law in China: Part I–Complying with TRIPS Requirements," *East Asian Executive Reports*, (Jan. 15, 1997).

[118] Pitman B. Potter and Michel Oksenberg, "A Patchwork of IPR Protections," *China Business Review* (Jan./Feb. 1999), pp. 8-11.

[119] Min Chen, "Technological Transfer to China: Major Rules and Issues," *International Journal of Technology Management*, vol. 10, Nos. 7/8 (1995), p. 753.

Table 3-9
China's laws and participation in international conventions and agreements for protection of intellectual property

Item	Effective date
Laws	
Trademark Law	1982, amended in 1993
Patent Law	1984, amended in 1992
Copyright Law	1990
Computer Software Protection Regulations	1991, amended by the 1992 Rules for the Implementation of International Copyright Treaties and other rules and orders
Unfair Competition Law	1993
Regulations for the Protection of New Varieties of Plants	1997
Chinese Government Directive instructing government entities to use only legitimate and authorized computer software	1999
Conventions and International Agreements	
Convention Establishing the World Intellectual Property Organization	1980
Madrid Agreement Concerning the International Registration of Marks (with Protocol)	1989
Paris Convention for the Protection of Industrial Property (1967 Stockholm Version)	1992
Universal Copyright Convention	1992
Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms	1993
Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks	1994
Patent Cooperation Treaty	1994
Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure	1995
Locarno Agreement Establishing an International Classification for Industrial Designs	1996
Strasbourg Agreement Concerning the International Patent Classification	1996

Source: Compiled by the staff of the U.S. International Trade Commission from Zheng Chengsi, "I. China's Intellectual Property Laws and Conventions," *Intellectual Property Enforcement in China: Leading Cases and Commentary*, (Hong Kong: Sweet & Maxwell Asia, 1997), pp. XXI-XXII and USTR, "China Issues New Directive to Fight Software Piracy," press release 99-32, April 7, 1999.

different government agencies for different aspects of IPR protection remain a problem. For example, the China Patent Office is primarily responsible for patent protection; MOFTEC is responsible for issues of international cooperation and coordination; the State Technology Supervision Bureau is responsible for testing the technical specifications of products marketed in China; and the General Administration of Customs is responsible for exports and imports that violate IPR. The State Administration of Industry and Commerce (SAIC) and the Quality and Technology Supervision Bureaus (TSB) are the agencies from which U.S. companies most frequently seek enforcement of IPR rules, although there are other options as well.[120]

Enforcement efforts have increased as part of China's nationwide anti-crime campaign, particularly in the areas of computer products, videotapes, and industrial and pharmaceutical trademarks and trade names, but problems still remain. For example, although China's intellectual property laws allow for

[120] U.S. Department of State telegram, "IMI: China - Protection of Intellectual Property," message reference No. 2177, prepared by U.S. Embassy, Beijing, Mar. 10, 1999.

the imposition of fines and jail time for infringements and violations, the United States remains concerned about the lack of deterrent penalties that are actually imposed by Chinese courts for intellectual property piracy.[121] Long term IPR protection and prosecution of offenders in the future are questionable due to the dispersion of responsibility for IPR enforcement spread across various agencies, the overlap of criminal and IPR jurisdiction within the Chinese courts, and the dearth of knowledgeable IPR specialists and criminal law judges.[122]

Comparison with WTO Requirements

* * * * * * *.[123]

* * * the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) establishes comprehensive standards for the protection of intellectual property as well as the enforcement of IPR in WTO Member countries. These rules have been established to ensure that IPR are effectively enforced both at the border and within WTO Member countries. The Agreement requires each government to provide fair and transparent enforcement procedures, in particular, effective judicial procedures. These judicial procedures should provide for both preliminary and final relief (e.g., legal injunction), measures to preserve evidence, civil damages, and other remedies. The Agreement requires WTO Members to provide criminal sanctions to address willful copyright piracy and trademark counterfeiting on a commercial scale. The Agreement also requires WTO Members to establish effective procedures allowing trademark and copyright owners to obtain seizures of counterfeit and pirated goods at the border.

* * *. China has agreed to comply with further obligations and rights upon accession, enforceable through WTO dispute settlement procedures and set out in the "Market Access and Protocol Commitments." In particular, China's April 1999 offer, as it relates to investment and technology transfer, specifies that China abide by the following requirements:[124]

- comply with the TRIMS Agreement upon accession, without any developing country transition period;
- eliminate and cease enforcing local content requirements;
- refuse to enforce contracts imposing these requirements; and
- only impose or enforce laws or other provisions relating to the transfer of technology or other know-how, if they are in accordance with the WTO Agreements on Trade-Related Aspects of Intellectual Property Rights and Trade-Related Investment Measures.

Additionally, China has agreed not to condition investment approvals, import licenses, or any other import approval process on performance requirements including local content requirements, offsets, transfer of technology, or requirements to conduct research and development in China.[125]

Sectors Most Affected

Any company wishing to either establish a licensing agreement or invest directly in China is potentially affected by either implicit or explicit technology transfer requirements. Companies in "pillar" sectors and "encouraged"[126] industries for investment in China are also those that have a higher risk for violation of their IPR and find the technology transfer requirements to be a serious problem. Difficulties with administration of licensing and limiting the use of the technology after the agreement term of protection is concluded indicate that the option for direct investment in China may be safer than licensing for many firms,[127] especially in industries

[121] U.S. Department of State telegram, "China: Draft 1999 National Trade Estimate Report on Foreign Trade Barriers (NTE) - Lack of Intellectual Property Protection," message reference No. 721, prepared by U.S. Embassy, Beijing, Jan. 22, 1999.

[122] Ibid.

[123] These include Article I (General Most-Favored-Nation Treatment), Article II (Schedules of Concessions), Article III (National Treatment on Internal Taxation and Regulation), Article VII (Valuation for Customs Purposes), Article VIII (Fees and Formalities connected with Importation and Exportation), Article X

[123]—*Continued* (Publication and Administration of Trade Regulations), Article XI (General Elimination of Quantitative Restrictions), Article XIII (Non-discriminatory Administration of Quantitative Restrictions), and Article XVII (State Trading Enterprises).

[124] USTR, "Market Access Commitments of the Government of China on Goods, Services, and Agriculture," press release 99-34, Apr. 8, 1999.

[125] Ibid.

[126] For a complete list of industries where foreign investment is encouraged see the "Catalogue for Guiding Foreign Investment in Industries," *Provisional Regulations for Guiding the Direction of Foreign Investment*, June 1995, found at the MOFTEC Internet address http://www.moftec.gov.cn.

[127] Francis Bussolino and Joseph Tse, "Leveraging Technology in the PRC," *China Business Review*, (Jan./Feb. 1999).

such as telecommunications, automotive, chemicals/pharmaceuticals, aerospace, agriculture, energy, and electronics, among others.[128] As already mentioned, U.S. high-tech firms in industries such as computers, aerospace, semiconductors, and telecommunications have recently been more involved in technology transfers in the form of offsets such as the establishment of joint research institutions. The American Electronics Association points out that:

> *Government practice requires technology transfer for market share. The approval authorities (SDPC, MOFTEC, etc.) generally look for some tech transfer and training commitments. There do not appear to be any formal enforcement mechanisms other than to deny certification as a 'technologically-advanced enterprise,' which entitles FIEs to certain tax benefits. However, foreign companies may be encouraged to accept tech transfer commitments as quid-pro-quos for other government approvals or benefits.*[129]

Additionally, other industry representatives stated that technology transfer was a concern when doing business with China. These representatives include the Industry Sector Advisory Committee for Trade Policy Matters on Chemicals and Allied Products (ISAC 3);[130] the Semiconductor Industry Association;[131] and the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW).[132] China's implementation of the TRIPS Agreement and IPR protection are concerns of many industry representatives such as Motorola,[133] the Software and Information Industry Association,[134] the Industry Sector Advisory Committee on Consumer Goods (ISAC 4),[135] the Luggage and Leather Goods manufacturers of America, Inc.,[136] PhRMA,[137] and the Distilled Spirits Council of the United States,[138] among others.

Effects on U.S. Trade and U.S. Foreign Investment

Technology is an important component of U.S. firms' competitive advantage in many industries. The transfer of that technology through business operations in other countries is in many cases inevitable and even desirable.[139] In China U.S. companies routinely trade technology for market access. U.S. companies may transfer more or a higher level of technology than they wish, or more than can be effectively absorbed by China.[140] In practice, the form of the technology transfer agreement, level of technology transferred, and enforcement of the agreement, vary depending on the industry and the local enforcement agencies.

An indicator of the extent of technology transfer and other IPR legally transferred to China is shown in table 3-10 which presents U.S. receipts from royalties and licensee fees during 1994-97.

Although not directly related to technology transfer, the magnitude of the trade losses to U.S.-based copyright industries due to piracy for motion pictures, records and music, business applications software, entertainment software, and books was estimated almost $2.6 billion in 1998.[141] Approximately 55 percent of the estimated losses were from piracy of entertainment software and almost 33 percent of business application software. A recent study estimates that in 1998 business software piracy in China cost U.S. software producers almost $1.2 billion.[142]

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[128] *Provisional Regulations for Guiding the Direction of Foreign Investment*, June 1995, lists the sectors which are encouraged, restricted and prohibited in China.

[129] *Provisional Regulations for Guiding the Direction of Foreign Investment*, June 1995, lists the sectors which are encouraged, restricted and prohibited in China. U.S. Department of Commerce, BXA and DFI International, "Technology Transfer: Policies, Process, and Decision Making in China," *U.S. Commercial Technology Transfers to the People's Republic of China*, Jan. 1999, p. 21.

[130] American Electronics Association, written submission to the Commission, Mar. 9, 1999, p. 8.

[131] Roger K. Fisher, Roger K. Fisher & Associates, Ltd., member of ISAC 3, Industry Sector Advisory Committee for Trade Policy Matters–Chemicals and Allied Products, written submission to USTR, Mar. 12, 1997.

[132] Semiconductor Industry Association, written submission to the Commission, Mar. 9, 1999, pp. 6-8, and written submission to USTR, Mar. 14, 1997.

[133] International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW), written submission to the Commission, Mar. 9, 1999, p. 3.

[134] Motorola, Inc., written submission to the Commission, Mar. 9, p. 3.

[135] Software and Information Industry Association, written submission to the Commission, Mar. 9, 1999 pp. 1-2.

[136] Collier, Shannon, Rill & Scott on behalf of the Industry Sector Advisory Committee 4, written submission to the Commission, Mar. 9, 1999, p. 5.

[137] Luggage and Leather Goods Manufacturers of America, Inc., written submission to the Commission, Mar. 9, 1999, p. 4.

[138] PhRMA, written submission to the Commission, Mar. 9, 1999, p. 6-9.

[139] Distilled Spirits Council of the United States, written submission to the Commission, Mar. 9, 1999, pp. 1-4.

[140] For example, see Daniel H. Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace*, pp. 72-73.

[141] U.S. Department of Commerce, BXA, "Technology Transfer: Policies, Process, and Decision Making in China," *U.S. Commercial Technology Transfers to the People's Republic of China*, pp. iii-iv.

[142] International Intellectual Property Alliance, "IIPA 1999 'Special' Recommendations IIPA 1997-98 Estimated Trade Losses Due to Piracy (in millions of U.S. dollars) and the 1997-1998 Levels of Piracy," found at Internet address http://www.iipa.com/html/worldp_piracy_losses.html, retrieved June 24, 1999.

Table 3-10
China: U.S. receipts from royalties and license fees, 1994-97

(Million dollars)

Year	Total	Affiliated firms[1]	Unaffiliated firms		
			Total	Industrial processes	Other[2]
1994	72	24	47	33	14
1995	113	54	59	31	28
1996	155	90	65	43	22
1997	245	164	81	48	33

[1] Affiliated firms include by U.S. parents from their foreign affiliates and by U.S. affiliates from their foreign parents. Affiliated is defined as a business enterprise located in one country which is directly or indirectly owned or controlled by a person of another country to the extent of 10 percent or more of its voting stock or an equivalent interest.

[2] Includes receipts from books, records, tapes; broadcasting, and recording of live events; franchise fees; trademarks; and other miscellaneous receipts and fees.

Source: Compiled by the staff of the U.S. International Trade Commission from U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. International Sales and Purchases of Private Services: Cross-Border Transactions in 1997 and Sales by Affiliates in 1996," *Survey of Current Business*, Oct. 1998, table 4.1, p. 94.

Some evidence raises questions about China's actual ability to absorb and use the technology that is transferred. As pointed out by three researchers from the Department of Industrial Science and Technology of the State Science and Technology Commission, "Because of the failure to accord central importance to the absorption, assimilation, and innovation of imported technology, both the government and enterprises handle absorption and assimilation funds in a most haphazard unplanned manner and fail to make them actually available."[143] Approximately one tenth of technology import activities are spent on the development of indigenous technology, whereas in Japan for every one dollar spent on buying hard technology another 10 dollars are spent on the development of indigenous technology and innovation.[144]

Regardless of whether or not China can absorb the highest level of technology that is transferred, anecdotal evidence provided by various industries highlights continuing problems due to IPR violations. In addition, while China has increased its efforts to protect that technology through IPR legislation and the establishment of an institutional mechanism for enforcement of those laws and prosecution of violators, problems with continued violations, unclear and overlapping government agency responsibility, and deterrent penalties remain. For example, because of a weakness in the intellectual property rules, companies in the pharmaceutical industry have experienced legal copying of their drugs like Eli Lilly and Co.'s Prozac, Novartis' Lamisil and Neoral, and Pfizer Inc.'s Zoloft.[145] Copies of these drugs are sold at a lower price, with Prozac's copy selling at 40 percent less than the name brand. The UAW points out that technology demands and production offset deals cause companies to move production to China, displacing U.S. exports.[146] Estimates of losses due to intellectual property counterfeiting, piracy and exports to third countries are in the range of $2 billion.[147] Despite

[143] Business Software Alliance and Software & Information Industry Association, *1998 Global Software Piracy Report*, May 1999, found at Internet address http://www.bsa.org/statistics/GSPR98.pdf, retrieved June 8, 1999.

[144] Daniel H. Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace*, p. 74.

[145] Ibid.

[146] Francis Bussolino and Patricia Dame, "Battling Weak IP Protection in Pharmaceuticals," *China Business Review* (Jan./Feb. 1999).

[147] International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW), written submission to the Commission, Mar. 9, 1999, p. 3.

[148] U.S. Department of State telegram, "China: Draft 1999 National Trade Estimate Report on Foreign Trade Barriers (NTE) - Lack of Intellectual Property Protection," message reference No. 721, prepared by U.S. Embassy, Beijing, Jan. 22, 1999.

these specific examples, it is nevertheless difficult to assess the overall effect the elimination of technology transfer requirements would have on U.S. investment in China due to the numerous other issues that also factor into the investment decision, such as perceived market benefits and perceived competition. In general, companies would likely be less apprehensive about investing and transferring technology in China given a strong legislative basis for protection of IPR and proper enforcement of those rights.

Other Non-Tariff Barriers

Certain other Chinese non-tariff barriers are described in tables 3-11 through 3-17. These barriers affect a wide variety of industries. In many instances, it is difficult to assess the effects of eliminating a particular barrier because of limited information from the available literature or from affected U.S. industries.

Table 3-11
Chinese non-tariff barrier (tendering): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	Tendering is a procurement system for machinery and electronic products. Coordinated by the China National Tendering Center of Machinery and Electric Equipment, 30 tendering organizations arrange procurement tenders for machinery and equipment needed by national ministries; for major technical innovation projects; public works, including foreign funded projects; and private enterprises, including joint ventures. The bidding process is based on direct negotiation and is non-transparent. Because the bidding process is non-transparent, tendering organizations as well as other interested parties may distort imports either in favoring domestic producers over foreign producers or discriminating against producers from certain countries.
Comparison with WTO requirement	WTO rules include GATT 1994 Article XI (General Elimination of Quantitative Restrictions) and GATT1994 Article XIII (Non-discriminatory Administration of Quantitative Restrictions). Article XI requires the elimination of quantitative restrictions. Article XIII requires that quantitative restrictions be applied in a non-discriminatory manner. Tendering and bidding is also covered by the plurilateral WTO Agreement on Government Procurement, in which participating WTO members abide by the rules of that agreement.
Sectors most affected	Selected machinery, including certain: • engines • lifting machinery • construction machinery • mining machinery • pulp and paper machinery • mineral processing machinery • agricultural machinery • ships • testing equipment • tobacco processing machinery • bakery and pasta machinery • printing machinery • molds for metals and plastics • electric generating sets, and so forth.

Table 3-11-*Continued*
Chinese non-tariff barrier (tendering): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Effects on U.S. trade	Increased U.S. export opportunities as U.S. exporters will be able to negotiate directly with end-users in China. Potential benefits may, in part, depend upon the extent to which Chinese state-owned and state-invested enterprises operate in a commercial manner, as China agreed to in its April 1999 offer. * * * * * * * * * * * * * * Based upon Chinese import data, China's imports from the United States covered by tendering as presented in China's April 1999 offer totaled $665.1 million in 1996 and $574.2 million in 1998, imports from the world totaled almost $5.8 billion in 1996 and declined to $3.5 billion in 1998. Based upon 1998 Chinese import data, tendering requirements for $395.8 million, or 69 percent, of imports from the United States would be phased-out by 2001, with only 7 percent in 2000, 16 percent in 2002, and 16 percent in 2004.
Effects on U.S. foreign investment	Negligible increase in U.S. foreign investment in China due to the increase in ability to export as opposed to having to establish joint ventures in China in order to gain an advantage in the bidding during the tendering process.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO* and China's April 1999 offer.

Table 3-12
Chinese non-tariff barrier (national treatment): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	The principal of national treatment is that a country should treat foreign goods, services, service providers, intellectual property, and investment no less favorably than those of domestic origin. National treatment is a core obligation of the WTO. Chinese products and services frequently are provided preferential treatment over those of foreign providers; examples include preferences for Chinese firms in financial services and power generation equipment.
Comparison with WTO requirement	Principally covered by GATT 1994 Article III:4, which provides that "[t]he products of the territory of any contacting party imported into the territory of any other contracting party shall be accorded treatment no less favorable than that accorded to like product of national origin in respect of all laws, regulations and requirements." Article XVII of the General Agreement on Trade in Services (GATS) requires national treatment for the services where there are scheduled national commitments. Article 3 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) also imposes broad national treatment obligations on WTO.
Sectors most affected	Virtually all sectors. Examples include: • The pharmaceutical industry notes Chinese price controls for finished formulations of western medicines. • The telecommunications industry notes Chinese "buy local" policies. • Oilseeds industry notes that VAT taxes are applied to imported oilseeds and vegetable oils, but not domestic articles.
Effects on U.S. trade	Increased U.S. export opportunities across a variety of industries. Potential benefits may, in part, depend upon the extent to which Chinese state-owned and state-invested enterprises operate in a commercial manner, as China agreed to in its April 1999 offer. In addition, benefits would also depend upon how China implements its industrial policies. * * *.
Effects on U.S. foreign investment	Increased U.S. foreign investment opportunities across a variety of industries due to China's elimination of preferences for domestic service and goods providers.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO* and China's April 1999 offer.

Table 3-13
Chinese non-tariff barrier (transparency): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	Transparency in this context concerns government decision-making and whether there is (1) access to the applicable rules and regulations that govern the decision-making process, and (2) an ability to observe whether the decision was made in accordance with those rules and regulations. The lack of transparency, including access to published rules and regulations and an ability to observe the decision-making process, acts as a non-tariff barrier in that foreign firms seeking to do business in China may not know who makes the decision, the standard (if any) applied by the decision-maker, and the reasons for the decision. Under the 1992 U.S.-China Memorandum of Understanding Concerning Market Access, China agreed to publish in a prompt and regular manner all relevant laws, regulations, rules, decrees, administrative guidance, and policies relating to foreign trade. U.S. firms doing or seeking to do business in China have complained about the absence of rules and regulations or their late publication, and weak or inconsistent implementation. They have complained about a lack of transparency in, among other areas, the assessment of customs duties and other taxes, the granting of licenses and other rights to market access, and the procurement of goods and services.
Comparison with WTO requirement	GATT 1994 Article X:1 provides that "[l]aws, regulations, judicial decisions and administrative rulings of general application...shall be published promptly in such a manner as to enable governments and traders to become acquainted with them." Transparency obligations are found specifically with regard to state-trading enterprises under Article XVII, the Agreement on Trade in Services (GATS), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Agreement on the Application of Sanitary and Phytosanitary Measures, and others.
Sectors most affected	All merchandise and service sectors. • Semiconductor industry cites lack of transparency in bidding from state enterprises. • Pharmaceutical industry cites concern over lack of transparency in China's price control regulations for finished formulations of western medicines. • Telecommunications industry cites lack of transparency of China's certification system for qualifying imported telecommunications equipment for use on Chinese telecommunications networks.
Effects on U.S. trade	Modest increases in U.S. export opportunities as transparency in the government decision making-process improves-that is, as access to the applicable rules and regulations that govern the process improves and as the ability to observe whether the decision was made in accordance with those rules and regulations improves. This effects prediction assumes most decisions will be made in accordance with published rules and regulations. * * * * * * *.
Effects on U.S. foreign investment	Increased U.S. foreign direct investment opportunities in China as transparency leads to confidence in China business environment.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO* and China's April 1999 offer.

Table 3-14
Chinese non-tariff barrier (judicial review): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	A corollary of the requirement of transparency is that there be a means of obtaining a fair, impartial, and effective administrative and judicial review of governmental decisions, as well as a means of resolving private commercial disputes. In China, national and provincial economic courts have jurisdiction over trade and commercial disputes involving foreign parties. There is a preference in China for resolving disputes through informal consultation between parties of the dispute or before a Chinese arbitral body. Foreign investors find this time-consuming and unreliable.
Comparison with WTO requirement	GATT 1994Article X:3(b) provides that each WTO member must have judicial, arbitral, or administrative tribunals that will promptly review and correct administrative actions relating to customs matters. The WTO Agreement on Trade Related Aspects of Intellectual Property Rights and the Agreement on Implementation of Article VI (Antidumping Agreement), among other WTO agreements, contain judicial review requirements.
Sectors most affected	All merchandise and service providers.
Effects on U.S. trade	Increased U.S. export opportunities as U.S. exporter confidence in the increase in the availability and reliability of Chinese judicial review regime. * * * * * * *. China's April 1999 offer does not go beyond what is already specified in the WTO draft protocol on China.
Effects on U.S. foreign investment	Increased U.S. foreign investment opportunities in China as U.S. investors become more confident in the increase in the availability and reliability of Chinese judicial review regime.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the* WTO and China's April 1999 offer.

Table 3-15
Chinese non-tariff barrier (export performance requirements): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	Export performance requirements are measures that require or coerce foreign-invested enterprises to export a specified volume or share of production in order to gain approval for establishment. China appears to impose export performance requirements on most commercial establishments that have some level of foreign ownership. Export performance requirements are required by law only for foreign wholly owned enterprises, which must export more than 50 percent of the total value of annual output. Performance levels may be adjusted during contract revisions or other times.
Comparison with WTO requirement	* * * * * * *.
Sectors most affected	Virtually all manufacturing sectors. Export performance requirements have been noted by U.S. aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile industries.
Effects on U.S. trade	Under China's April 1999 offer, China has agreed to eliminate and * * * export performance requirements * * *. This is beyond WTO/GATT TRIMS agreement. With the removal of China's export performance requirements, there may be a possible decrease in U.S. imports from China. However, U.S. companies may incur costs in reorienting their operations to the Chinese market. In 1997, exports of foreign-invested enterprises (FIEs) in China totaled $59.7 billion, or almost 33 percent of China's total exports of $182.7 billion, based upon Chinese trade data. This may be viewed as an upper limit of exports resulting from export performance requirements. Applying the percent of China's exports from FIEs, 33 percent, to China's exports to the United States in 1997, $32.7 billion, would result in $10.8 billion in exports being attributable to FIEs. This figure would not account for Chinese exports to Hong Kong for further processing and subsequent export to the United States. China's exports to Hong Kong totaled $43.7 billion in 1997.
Effects on U.S. foreign investment	Since China has agreed to remove export performance requirements, new U.S. foreign investment opportunities in China may arise since wholly owned foreign enterprises would be constrained to invest for export markets, but could invest for the local Chinese market.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO* and China's April 1999 offer.

Table 3-16
Chinese non-tariff barrier (local content requirements): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	Local content requirements are measures that require the purchase or use by an enterprise of products of domestic origin in order to gain approval for establishment. China reportedly imposes local content requirements on most enterprises with foreign ownership. Such requirements are generally not imposed by statute but instead arise during the examination and comment period of the investment approval process in the form of internal guidance. Article 15 of China's Law on Foreign Capital Enterprises encourages the use of Chinese inputs, as do several other laws.
Comparison with WTO requirement	TRIMS lists local content requirements as being inconsistent with the national treatment obligation. TRIMS prohibits local content from being imposed by law or from serving as a condition for receiving some advantage, including investment approval.
Sectors most affected	Virtually all processing or manufacturing operations in China having foreign investment. Local content requirement concerns have been cited by U.S. aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile industries.
Effects on U.S. trade	* * * * * * *. Increased U.S. export opportunities as requirements to use local content are eliminated. However, there may be enforcement difficulties because China's local content requirements are presently imposed by informal means. Further, potential benefits, in part, may depend upon how China implements its industrial policies. In addition, opportunities may be limited as foreign companies seek to develop local suppliers in order to support business models where manufacturing is located close to the customer.
Effects on U.S. foreign investment	Fewer U.S. foreign investment opportunities as U.S. companies realize that there will be no official laws and regulations requiring the use of local content, and therefore they have the flexibility to import foreign inputs. However, since local content requirements may be imposed by informal means, rather than by statute, pressures to use local content are likely to continue to impose operational constraints on U.S. firms.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO* and China's April 1999 offer.

Table 3-17
Chinese non-tariff barrier (trade and foreign exchange balancing requirements): Description, comparison with WTO requirement, sectors most affected, effects on U.S. trade, effects on U.S. foreign investment

Item	Comment
Description	Trade balancing foreign-exchange requirements are measures imposed upon foreign-invested enterprises that limit a firm's imports to a level equivalent to, or based upon, its level of exports. Foreign-exchange balancing requirements are measures that limit a firm's outflows of foreign exchange to a level equivalent to, or based upon, its level of inflows. China reported ceased enforcement of foreign-exchange balancing requirements as it moved toward current account convertibility in 1996. However, China's export performance requirements also may be viewed as a way to balance foreign exchange.
Comparison with WTO requirement	TRIMS prohibits quantitative restrictions, such as the use of measures that limit the ability of an enterprise to import products by restricting access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise.
Sectors most affected	Virtually all sectors. Foreign exchange balancing requirements have been cited by U.S. aerospace, automobile, electronics, packaged foods, machinery, semiconductor, telecommunications equipment, and textile industries.
Effects on U.S. trade	Under China's April 1999 offer, * * *. Increased U.S. export opportunities to China and a decrease in U.S. imports from China because foreign firms producing in China will not have constraints imposed on their operations that dictate import and export flows.
Effects on U.S. foreign investment	Increased U.S. foreign investment opportunities in China as companies are not constrained to balance import and export flows.

Source: Compiled by the staff of the U.S. International Trade Commission from various sources, including written submissions to and testimony before the U.S. International Trade Commission with respect to inv. No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the* WTO and China's April 1999 offer.

CHAPTER 4
Effects of China's Institution of Tariff-Rate Quotas under the WTO for Selected Agricultural Products

Introduction

This chapter compares the current trade situation with China to the institution of tariff-rate quotas (TRQs) as part of a WTO accession package with regard to wheat, corn, rice, oilseeds, vegetable oils, sugar, wool and wool tops, and cotton. This chapter responds to USTR letters of December 18, 1998, and June 16, 1999. The latter requests an amplification of the quantitative analysis of the effects on the U.S. economy of the full range of market access commitments that China made in April 1999, including on agricultural products. China's April 1999 offer on TRQs covers the products that were priority sectors for the United States–wheat, corn, rice, soybean oil, and cotton.[1] The April 1999 offer provides tariff quota levels (and for rice, quota shares for specific grades), tariff rates, guaranteed shares for private traders, and the staging of China's proposed concessions. Previously, China had not made specific WTO accession offers on these products.

This chapter describes the WTO rules on TRQs and provides a qualitative assessment of the effects on U.S. trade and investment from China's imposition of TRQs. The assessment relies in part on input received from U.S. industry. A quantitative assessment is provided in chapter 7, where estimates of the effects on the U.S. economy of imposing TRQs on these selected agricultural products are obtained from employing the China-WTO model. The model results (discussed in greater detail in chapter 7) indicate a substantial export potential for wheat, corn, cotton, and vegetable oils as a result of the April 1999 offer made by China relating to these products. These results were based solely upon an assessment of tariff bindings and reductions on all imports.

WTO Rules on Agricultural Import Quotas

The WTO Agreement on Agriculture, Article 4 (Market Access), paragraph 2, requires members to convert quantitative restrictions[2] on agricultural imports to tariffs ("ordinary customs duties"). This process is known as "tariffication." Because tariffication may result in very high tariff rates, WTO members are required to provide market access opportunities equivalent to levels prior to tariffication.[3] Where there were no significant imports, members are required to establish minimum market access opportunities at a level of not less than 3 percent of domestic consumption in a base period. The minimum access level is then to expand to 5 percent during the

[1] Office of the United States Trade Representative, "Statement of Ambassador Charlene Barshefsky Regarding Broad Market Access Gains Resulting from China WTO Negotiations–Market Access and Protocol Commitments," USTR press release 99-34, Apr. 8, 1999, found at Internet address http://www.ustr.gov/releases/1999/04/99-34.pdf, retrieved Apr. 12, 1999.

* * *.

[2] The footnote in Article 4.2 of the WTO Agreement on Agriculture lists the proscribed measures: quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing, non-tariff measures maintained through state-trading enterprises, voluntary export restraints, and similar border measures other than ordinary customs duties.

[3] GATT Secretariat, Trade Negotiations Committee, "Section B - Requirements concerning current access opportunities," Annex 3, Part B, Text on Agriculture, *Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations*, MTN.TNC/W/FA, Dec. 20, 1991, pp. L.26-27. See also Jeffrey S. Thomas and Michael A. Meyer, *The New Rules of Global Trade: A Guide to the World Trade Organization* (Ontario, Canada: Carswell Thomson Professional Publishing, 1997), pp. 77-78.

Uruguay Round implementation period. Tariffication thus resulted in members replacing absolute quotas with a TRQ. Under a TRQ, a member applies one tariff rate (which could be a zero rate) to imports of a product up to a particular amount (the "in-quota" tariff rate and quantity) and applies a higher tariff rate to imports in excess of that amount (the "over-quota" tariff rate).[4]

In the accession negotiations with China, the United States and other WTO members are using the rules and requirements on tariffication and market access set out in the *Draft Final Act* text in the Agreement on Agriculture of the Uruguay Round negotiations of the WTO. This was the point of departure for the negotiations from which tariff reductions and other features pertaining to market access would be negotiated.[5] Thus, the TRQs that China is to institute would be the greater of either current access, or minimum access of 3 percent of consumption, to increase over time to 5 percent of consumption. However, in the course of negotiations, the minimum-access level for rice came to be based upon 2 percent of consumption growing to 4 percent of consumption.[6] The base period for calculating current and minimum access for China was calendar years 1995-97.

The detailed product analysis in this chapter presents tariff quota levels and other information from China's April 1999 offer to the United States on wheat, corn, rice, soybeans, soybean oil, and cotton. For products for which market access is being negotiated by other WTO members—palm oil, rapeseed oil, sugar, and wool and wool tops—consumption data estimated by the U.S. Department of Agriculture (USDA) are presented for market years (i.e., crop years), as well as quotas based upon 3 percent and 5 percent of consumption. Such consumption data account for commodity stocks at the beginning and end of the year. According to USDA officials, the Chinese consider data on consumption and stocks to be state secrets, and only production and trade data are publicly available. The U.S. industry has raised concerns that the negotiations should not use official Chinese trade data as these may understate the level of imports.[7]

For the accession negotiations, no formula for reducing the tariff components of TRQs was established by WTO members prior to negotiations with China; therefore, the extent of TRQ tariff concessions is the result of bilateral negotiations. China's TRQ tariff concessions are based upon its 1998 applied tariff rates. For this analysis, Chinese tariff rates for 1998 were obtained from the publication *Customs Import and Export Tariff of the People's Republic of China 1998* published by China's Office of the Customs Tariff Commission under the State Council and the Customs General Administration Tariff Department. In 1998, China applied TRQs[8] to grains (wheat, corn, rice), oilseeds (soybeans and rapeseed), most vegetable oils, and wool. Because quota levels for these products were not published, this analysis assumes that 1998 quota levels for these products are in fact the level of imports in 1998. For sugar and cotton, the analysis assumes tariff reductions from 1998 applied Chinese tariff rates.

The potential benefits to the United States from China's institution of TRQs may be limited by China's intention to reserve either the totality or a share of imports and exports for state-trading enterprises (STEs).[9] Under WTO rules, China is not required to eliminate STEs; however, China is required to have its STEs operate on the basis of commercial considerations and in a non-discriminatory manner.[10] STE activities may erode or negate tariff concessions bound in WTO national schedules through a variety of ways. These include the use of licensing to operate the TRQs or the establishment of technical barriers that limit imports.

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[4] Statement of Administrative Action (SAA), p. 55; at U.S. Congress, *Uruguay Round Trade Agreements, Texts of Agreements, Implementing Bill, Statement of Administrative Action, and Required Supporting Statements*, 103rd Cong., 2nd sess., 1994, H. Doc. 103-316, Vol. 1, Sept. 27, 1994 (Washington, DC: Government Printing Office, 1994), p. 711 (hereafter, "URAA documents"). See also SAA, "Endnotes," URAA documents, p. 1124.

[5] Officials of U.S. Department of Agriculture (USDA) and USTR, telephone and in-person interviews with USITC staff, May 7, 1999.

[6] This formula was used for rice import access negotiations for Korea in the Uruguay Round. Officials of USDA and USTR, telephone and in-person interviews with USITC staff, May 7, 1999.

[7] For example, U.S. industry expressed the concern that overall low Chinese trade figures understate China's imports of vegetable oils. American Oilseed Coalition, written submission to the Commission, Mar. 9, 1999, p. 3. See ch. 2 for a discussion of discrepancies between U.S. and Chinese data sources.

[8] On April 1, 1996, China applied TRQs on imports of wheat, corn, rice, soybeans, and vegetable oils, but by late 1998, had not announced TRQ administration rules or quota volumes.

[9] The WTO defines state-trading enterprises as governmental and non-governmental enterprises that have been granted exclusive or special rights through which they influence the level and direction of imports and exports. For a discussion of state-trading, see ch. 3.

[10] GATT 1994, Article XVII. In addition, STEs frequently use export subsidies in their operations. It should be noted that agricultural export subsidies are legal under the WTO, provided they have been notified and are less than the export subsidy commitment level. See also WTO, "Possible Negative Trade Effects" under "State Trading Enterprises" in "The World Trade Organization: A Training Package," retrieved May 8, 1999.

Under China's April 1999 offer, China agreed to guaranteed shares of imports of wheat, corn, rice, and soybean oil within the TRQs for private traders. For some commodities, the shares allocated to private traders will rise over the phase-in of TRQ concessions or for soybean oil be accorded the entire quota by year 2006. The unused portion of shares of imports allocated to STEs will be reallocated by the authorities to private traders. It is unknown if other WTO members are seeking guaranteed shares for private traders for sugar, rapeseed (an oilseed), and other vegetable oils. China's April 1999 offer is quite specific with regard to the procedures to be followed, stating which Chinese agencies have authority in the administration of the TRQs, unlike WTO commitments made in the Uruguay Round negotiations. A future concern is the availability of Chinese agricultural price data for determining domestic support levels and subsidies.[11]

Summary of Findings

Chinese TRQs should increase market access opportunities for the United States and other exporting countries in most products of interest to the United States—wheat, corn, rice, soybean oil, and cotton. The elimination of the never-enforced[12] Chinese TRQ and continuation of the 1998 applied tariff on soybeans will maintain current U.S. market access for soybeans. The extent of U.S. exports will depend upon other factors, such as the role of STEs, China's domestic agricultural support policies, and levels of third-country exports. For rapeseed, sugar, other vegetable oils excluding soybean oil, and wool and wool tops, the United States is either a net importer or a negligible exporter, and therefore unlikely to realize the benefits from increased market access opportunities. However, the potential to export is enhanced. Table 4-1 presents the summary of findings. U.S. foreign investment in grains, oilseeds, vegetable oils, sugar, cotton, and wool and wool tops is currently limited by China's foreign investment laws.[13] It is unlikely that these restrictions will change with China's accession to the WTO.

[11] USTR official, telephone interview by USITC staff, July 16, 1999.

[12] See discussion of oilseeds later in this chapter.

[13] *Guide Catalogue of Industries for Foreign Investment*, approved by the State Council on Dec. 29, 1997, and effective Jan. 1, 1998, as found in China Council for the Promotion of International Trade (CCIPT), *China Business Guide*, appendix II, found at Internet address http://www.ccpit.org/engVersion/cp_infor/cp_cbg/cbg_fl122.html, retrieved Feb. 22, 1999.

Grains: Wheat, Corn, and Rice[14]

China grows mainly corn and winter wheat in the north of China while rice is grown in the south. Corn is principally used for animal feed, while wheat and rice are mostly used directly in food. Chinese consumption of rice and wheat have been stagnant on a per capita basis, whereas that of corn and other feed grains has been rising over the last 5 years. The more densely populated and industrial areas of central and southern China are grain-deficient areas requiring substantial imports of grain from northern China or abroad, while grain (corn and rice) surplus areas in northern China export both to southern China, and to adjacent countries such as Korea and Japan.

Current Trade Situation

China imposes tariffs, quotas, and licensing requirements on imports of grains. Effective April 1, 1996, China applied TRQs to wheat, corn, and rice. Since then, no TRQ administration rules or quota volumes have been announced. Table 4-2 shows China's tariff rates and over-quota tariff rates for 1998. China's licenses and quotas on imports of grains are managed by the State Council. As China reserves trading in grains for STEs, these are executed through the state trading enterprise called China Cereals, Oils and Foodstuff Import and Export Company (COFCO, formerly known as CEROILS)[15] and its provincial branches. Also, exports are regulated by a system of export licenses granted by the State Council. In market year April 1997-March 1998, actual execution of the export licenses was delegated to COFCO, which in turn sold the grain to be exported to trading companies.

In 1998, China's grain reforms strengthened state control over their grain systems in an attempt to support farm prices and stem heavy financial losses in the provincial grain bureaus.[16] Government guidance

[14] Wheat and wheat flour, groats, meal and pellets are classified under Harmonized System (HS) heading HS 1001, 1103.11, and 1103.21; corn and corn flour, groats, meal, pellets, and worked corn under HS 1005, 1102.20, 1103.13, and 1104.23; and rice and rice flour, groats, meal and pellets under HS 1006, 1102.30 and 1103.14. Wheat, rice, and corn flour, groats, meal, pellets, and worked corn account for a very small share of China's imports of wheat, corn, and rice.

[15] COFCO has 8 general divisions and 30 wholly owned subsidiaries, and 19 directly controlled foreign subsidiaries. In 1997, COFCO had sales of $13.5 billion and employed 28,000 persons.

[16] In 1998, Grain Bureau losses were reported at RMB 14.5 billion (US$1.8 billion) monthly. USDA Foreign Agricultural Service (FAS), *Grain and Feed: China's Grain Reforms of 1998*, U.S. Embassy, Beijing, Report No. CH8051, Oct. 27, 1998, p.1.

Table 4-1
Summary of effects of Chinese institution of tariff-rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Grains:	
Wheat	***Trade:*** Market access opportunities would likely be created by a TRQ. However, the extent of any increase in U.S. exports would depend ultimately upon the role of state trading enterprises (STEs), China's production policies, and the competitiveness of U.S. wheat exports relative to Australian and Canadian wheat. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Corn	***Trade:*** Market access opportunities would likely be created by a TRQ. However, the extent of any increase in U.S. exports would depend upon the role of STEs, China's production policies, and the competitiveness of U.S. corn exports, relative to Argentinean or third-country feedgrains. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Rice	***Trade:*** Market access opportunities for U.S. rice would likely be created by a TRQ. However, the extent of any increases in U.S. exports would depend upon the role of STEs, China's production policies, and the competitiveness of U.S. rice exports. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Oilseeds:	
Soybeans	***Trade:*** Current U.S. market access opportunities maintained. The nominal TRQ on soybeans (announced but never enforced) would be eliminated, and the current 3-percent duty continued. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Rapeseed	***Trade:*** Uncertain. The United States is a net importer of rapeseed and is likely to remain so for the long-term. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Soybean oil	***Trade:*** Market access opportunities would likely be created by a TRQ and by a lower in-quota tariff rate. However, the extent of any increase in U.S. exports would depend upon the role of STEs, China's production policies, and the competitiveness of U.S. soybean oil exports relative to third-country palm oil, rapeseed oil, and soybean oil exporters, and the extent of the VAT. ***Investment:*** There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.

Table 4-1—*Continued*
Summary of effects of Chinese institution of tariff-rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Vegetable oil:	
Peanut oil	***Trade:*** Uncertain. Total U.S. exports were valued at $4.5 million in 1998, with no exports to China.
	Investment: There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Palm oil	***Trade:*** Uncertain. Since the United States does not produce palm oil, there would be a negligible effect on U.S. exports of palm oil to China. However, to the extent that a TRQ on palm oil is sufficiently open, U.S. exporters of some types of vegetable oils may face a decline in exports as Chinese consumers substitute palm oil for other oils.
	Investment: There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Sunflower or safflower oil	***Trade:*** Uncertain. China imports little sunflower or safflower seed oil. U.S. exports to China have been negligible, although U.S. exports to the world totaled $265.5 million in 1998.
	Investment: There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Rapeseed oil	***Trade:*** Uncertain. U.S. exports to China have been negligible, although U.S. exports to the world totaled $97.1 million in 1998.
	Investment: There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Corn oil	***Trade:*** Uncertain. China imports virtually no corn oil. U.S. exports to China have been negligible, although U.S. exports to the world totaled $359.6 million.
	Investment: There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.
Other:	
Cotton	***Trade:*** Market access opportunities would likely be created by a TRQ. However, the extent of any increase in U.S. exports would depend upon the role of STEs, how the TRQ is implemented, China's production policies, and the competitiveness of U.S. cotton exports. China presently has a surplus of domestic cotton. China's policies regarding cotton from Xinjiang Province may limit cotton imports.
	Investment: There likely would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.

Table 4-1—*Continued*
Summary of effects of Chinese institution of tariff-rate quotas on U.S. trade and U.S. foreign investment under WTO accession, including China's April 1999 offer

Product	Effects
Other–*Continued*	
Sugar	***Trade:*** Uncertain. The United States is a net importer of sugar. U.S. sugar producers would benefit from stability in world sugar trade that would result if China liberalized its sugar market and permitted the market to adjust production.
	Investment: A TRQ may possibly benefit foreign confectionary producers in China, as lower tariffs on their foreign inputs would prompt investment.
Wool and wool tops	***Trade:*** Uncertain. The United States is a net importer of wool. However, as U.S. consumption of wool drops due to a declining textile and apparel industry, U.S. wool producers expect to look toward export markets such as China and wool top producers desire to return to the Chinese market.
	Investment: There would be little or no effect on U.S. foreign investment in China resulting from a Chinese TRQ.

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

rather than markets heavily influences prices of grain in China: for example, the farm procurement price for corn in 1998 was the equivalent of between US$120 to $130 per metric ton, with a delivered feed mill cost in southern China of $170 per metric ton, as compared with a delivered U.S. corn price of $150 to $160 per metric ton, according to USDA. Meanwhile, Chinese corn for export was being sold in mid- to late 1998 for around $105 per metric ton, f.o.b. (at approximate world price), with the central government paying export subsidies of $48 to $54 per metric ton.[17]

China's current trade situation thus reflects the Government's decision to stimulate and control domestic agriculture by reducing imports and increasing exports. Grain imports are controlled mainly through quotas and licensing, with in-quota tariff rates much less influential.[18]

In the past four years, China has changed from a net importer to a net exporter of grains. In market year 1995/96, China imported 15.5 million metric tons (mmt) of wheat and coarse grains including corn, and exported 0.7 mmt (mostly of corn). In market year 1998/99, China is expected to import 4.2 mmt and export 4.9 mmt of these grains, according to USDA, and thus China went from being a net grain importer of 15 mmt in 1995-96 to a net exporter of about 1 mmt in 1998-99.[19]

China used certain trade measures to reduce imports. In 1998, it was reported that corn imports were allowed only if the corn was re-exported in a finished product, such as starch or other processed products that used the imported corn.[20] Corn imports used as feed for livestock and then exported as meat, fish, or poultry were not allowed. Moreover, in early 1998 the Chinese Government banned imports of rice to promote domestic local rice consumption because of excess supplies of rice due to overproduction for the 3 previous years.[21] However, in July 1998, at the request of Thailand, China did agree to import 200,000 mt of Thai fragrant rice a year.

Principal problems faced by U.S. grain exporters to China have been sanitary and phytosanitary (SPS) barriers to wheat, as well as the application of state pricing,[22] import inspection, export subsidies, and a lack of transparency in state trading.[23] These problems would be addressed by the WTO Agreements.

[17] USDA, FAS, *Grain and Feed: Grain Situation Update*, U.S. Embassy, Beijing, Report No. CH8027, July 10, 1998, p. 4.

[18] USDA, FAS, "China Seeks Balance in Providing its Expanding Grain Needs," *Grain: World Markets and Trade*, Apr. 1998, pp. 17-23.

[19] USDA, FAS, *Grain: World Markets and Trade*, Apr. 1999, p. 38.

[20] Cargill AgHorizons, *Special Report: China Corn Developments*, Oct. 23, 1998, found at Internet address http://www.cargill.com/aghorizons/grainmkt/chinacor.htm, retrieved May 13, 1999.

[21] Foreign Broadcast Information Service (FBIS), "Official Says China to Allow Imports of Thai Rice," FTS19980715000177, July 14, 1998, found at Internet address http://www.fbis.gov, retrieved May 13, 1999.

[22] WTO Working Party on the Accession of China, Communication from China, WT/ACC/CHN/3, Aug. 16, 1996.

[23] U.S. Feed Grains Council, written submission to USTR, Mar. 10, 1997, and USA Rice Federation, written submission to USTR, Mar. 14, 1997.

Table 4-2
Grains: Chinese tariff rates and U.S. exports to China, by value, 1998

Sector/ HS sub-heading	Description	Tariff or in-quota tariff rate	Over-quota tariff rate	U.S. exports, 1998
		Percent ad valorem	*Percent ad valorem*	*1,000 dollars*
Wheat:				
1001.1000	Durum wheat	1	114	–
1001.9010	Seeds of wheat	–	114	–
1001.9090	Other wheat	1	114	45,971
1101.0000	Wheat or meslin flour	6	91.2	–
1103.1100	Wheat groats and meal	9	91.2	–
1103.2100	Wheat pellets	35	114	36
Corn:				
1005.1000	Seeds of corn	–	40	–
1005.9000	Other corn	1	114	44,203
1102.2000	Corn (maize) flour	9	91.2	12
1103.1300	Corn groats and meal	9	91.2	48
1104.2300	Corn (maize), worked (e.g., hulled, sliced, etc.)	35	114	–
Rice:				
1006.1000	Seeds of rice (paddy or rough)	–	114	–
1006.1090	Rice in the husk (paddy or rough)	1	114	–
1006.2000	Husked (brown) rice	1	114	–
1006.3000	Semimilled or wholly milled rice, whether or not polished or glazed	1	114	289
1006.4000	Broken rice	1	40	–
1102.3000	Rice flour	9	91.2	–
1103.1400	Rice groats or meal	9	40	–
	Total	([1])	([1])	90,559

[1] Not applicable.

Source: Compiled by the staff of the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce and from Chinese tariff data from Office of the Customs Tariff Commission under the State Council and the Customs General Administration Tariff Department of the People's Republic of China, *Customs Import and Export Tariff of the People's Republic of China 1998* (Beijing: Economic Management Publishing House, 1998), pp. 616-617.

China has banned the importation of wheat from the U.S. Pacific Northwest since 1972 because of a phytosanitary concern over *tilletia controversa kuhn* (TCK) smut.[24] In 1996, citing TCK as the basis, China banned the import of wheat from U.S. Gulf ports, affecting wheat exports from North Dakota, South Dakota, and Kansas, among other States where TCK is not present. According to a U.S. industry official, the drop in U.S. exports to China from roughly 2.2 mmt in 1996 to roughly 210,000 metric tons in 1997 and 342,000 metric tons in 1998[25] was due to the ban on imports of U.S. wheat owing to TCK.[26] However, China's imports of wheat from all countries also fell from 12.5 mmt in market year 1995/96 to 1.9 mmt in 1997/98, according to USDA data, so the TCK ban was not the only factor at work.[27]

The U.S. Government has contended that the ban is not scientifically justified. There is also an unrelated quarantine prohibiting corn seed exports from the United States to China.[28] In an April 1999 bilateral

[24] TCK, also known by its common name, dwarf bunt, is a wheat fungus that is black in color and produces a fishy odor.

[25] Based upon Chinese trade data.

[26] U.S. Grains Council, telephone interview with USITC staff, Apr. 7, 1999.

[27] USDA, FAS, *Grain World Market and Trade*, Apr. 1999, p. 15.

[28] DEKALB Genetics Corp., written submission to the Commission, Feb. 23, 1999.

agreement (contemporaneous with China's April 1999 offer), China agreed to lift, effective immediately, the ban on imports of U.S. wheat due to TCK.[29]

The largest markets for U.S. exports of corn have traditionally been Japan, Mexico, Korea, Taiwan, and Egypt, with China a major U.S. market in 1995. The major markets for U.S. exports of rice have been Japan, Mexico, Canada, and Saudi Arabia, with Brazil the leading market in 1998. China has not been a major export market for U.S. rice. According to Chinese trade data,[30] in 1998, the principal competition for U.S. exporters in the Chinese market for wheat, corn, and rice was as follows:

Product	Competitors
Wheat	Canada and Australia
Corn	Argentina
Rice	Thailand

Note.—Chinese import data listed Indonesia and the Netherlands as major suppliers of corn; however, these are not major corn producers, and were probably points of transhipment.

Thailand accounted for 99 percent of China's imports of rice, followed by Myanmar and the United States. According to industry sources, foreign rice also enters China through Hong Kong and is imported through unreported border trade from Vietnam.[31]

Effects of Chinese TRQs on U.S. Trade and Investment

Quota levels for wheat, corn, and rice from China's April 1999 offer are shown in table 4-3. The current access TRQ for wheat rises from 7.3 mmt in 2000 to 9.6 mmt in 2004, while the minimum access TRQ for corn rises from 4.5 mmt to 7.2 mmt, respectively. The minimum access TRQ for rice rises from 2.6 mmt to 5.3 mmt. Table 4-3 also provides 1995-98 data on China's consumption, total imports from all sources, and imports from the United States.

China's grain reform in March 1998 reversed previous steps toward a market-oriented grain distribution system begun in 1994.[32] China's domestic prices of wheat, corn, and rice have been higher than world market prices during the past few years, and these encouraged higher output. The 1998 reforms were aimed at reducing the Government's large financial losses, reducing mismanagement, but at the same time maintaining or improving farm incomes relative to urban incomes.[33]

However, by early 1999, the Chinese Government was preparing to modify the 1998 grain reforms because these brought about excess supplies of low-quality grain, and did little to stem the heavy financial outlays for grain support.[34] In addition, although private grain trading was officially banned in the 1998 reform, private traders continued to procure grain directly from farmers, circumventing the parastatal grain bureau stations. Since 1998, the Chinese Government spent RMB200 billion (US$24.2 billion) to procure grain and finance the grain bureau stations, continuing the large expenditures of earlier years.[35] Thus, it appears that Chinese grain support policies will be changed substantially in 1999 and 2000, reversing or at least substantially modifying the 1998 reforms.

A major factor cited by the U.S. industry that would adversely affect the results of tariffication and market access commitments is COFCO's monopoly on imports of grains.[36] Other factors cited include Chinese export subsidies, the arbitrary application of phytosanitary standards and regulations, and the potential lack of harmonization of China's tariffs on wheat, corn, and rice and their byproducts with other substitute grains and their byproducts.[37]

For grains in general, the shift to TRQs is unlikely to have any effect on U.S. foreign investment in China. Under China's investment policy, foreign investment in grain development and production is restricted to joint ventures where the Chinese partner would have a controlling or leading position.[38]

[29] USTR, "U.S.-China Sign Bilateral Agriculture Agreement," USTR press release 99-36, Apr. 10, 1999, found at Internet address http://www.ustr.gov/releases/1999/04/99-36.pdf, retrieved Apr. 15, 1999.

[30] Chinese trade data from GTI Corp., *World Trade Atlas, China*, 1998, CD-ROM

[31] Official of USA Rice Federation, telephone interview by USITC staff, Apr. 6, 1999.

[32] USDA, FAS, *China's Grain Reforms of 1998*, GAIN Report CH8051, Oct. 1998, found at Internet address http://www.fas.usda.gov, retrieved Mar. 4, 1999.

[33] Ibid.

[34] USDA, FAS, "Reforming Grain Sector Reforms," American Embassy, Beijing, CH9031, May 20, 1999, found at Internet address http://www.fas.usda.gov, retrieved May 24, 1999.

[35] Ibid. p. 2.

[36] U.S. Grains Council, written submission to USTR, Mar. 10, 1997.

[37] Ibid.

[38] *Guide Catalogue of Industries for Foreign Investment*, approved by the State Council on Dec. 29, 1997, and effective Jan. 1, 1998, as found in China Council for the Promotion of International Trade (CCIPT), *China Business Guide*, appendix II, found at Internet address http://www.ccpit.org/engVersion/cp_infor/cp_cbg/cbg_fl122.html, retrieved Feb. 22, 1999.

Table 4-3
Grains: Chinese consumption, minimum access initial and final quotas, total imports from all sources, and imports from the United States, 1995-98

			Annual quotas and imports				
				Minimum access		Chinese imports	
Item	Market year	Total consumption	Calendar year	Initial quota year 2000	Final quota year2004	Total, all sources	From the United States
		1,000 metric tons		*1,000 metric tons*			
Wheat	7/94-6/95	113,000	1995	7,300	9,636	11,627	3,868
	7/95-6/96	116,000	1996	7,300	9,636	8,299	2,191
	7/96-6/97	113,000	1997	7,300	9,636	1,922	210
	7/97-6/98	114,000	1998	7,300	9,636	1,548	342
Corn	10/94-9/95	101,000	1995	4,500	7,200	5,264	5,057
	10/95-9/96	105,000	1996	4,500	7,200	446	345
	10/96-9/97	116,754	1997	4,500	7,200	3	2
	10/97-9/98	122,000	1998	4,500	7,200	252	190
Rice	1/95-12/95	128,280	1995	2,660	5,320	1,645	1
	1/96-12/96	129,300	1996	2,660	5,320	774	3
	1/97-12/97	135,000	1997	2,660	5,320	359	4
	1/98-12/98	135,000	1998	2,660	5,320	260	1

Source: Compiled by the staff of the U.S. International Trade Commission from U.S. Department of Agriculture, Foreign Agricultural Service, *China: Grain and Feed Annual Report, 1996*, CH6004, Feb. 1996; *China: Grain and Feed Annual Report, 1997*, CH7005, Jan. 1997; *China: Grain and Feed Annual Report, 1998*, CH8007, Feb. 1998; *China: Grain & Feed Update*, CH8020, May 1998; *China: Grain Situation Update*, CH8027, July 1998; and Chinese trade data from GTI Corp., *World Trade Atlas, China, 998*, CD-ROM; and "*Final 8 Apr. 1999 List of Offers*."

Furthermore, any increase in U.S. exports of wheat, corn, or rice to China has the potential to be offset by lost sales to other U.S. markets because grains tend to be readily substitutable (i.e., trade fungible) on a world basis. For example, if Canadian or Australian exports are displaced in the Chinese market, such exports may in turn displace U.S. exports in other Asian markets.

Wheat and Corn

The stipulated Chinese TRQs on wheat and corn could provide an opportunity for increased market access for U.S. and other countries' products. However, the extent to which U.S. exports will increase will largely depend on other factors, including the influence of STEs on wheat mills and feed mills, the competitiveness of U.S. products relative to third-country wheat, and the role of Chinese agricultural support reforms and whether or not the reforms result in an increase in demand for U.S. exports. According to a U.S. industry official, 10-20 percent of China's grains needs could potentially be supplied by imports from all sources, and U.S. exports of wheat and corn could easily exceed the high export levels of 1995 and 1996.

The initial Chinese TRQ in-quota of 7.3 mmt of wheat (the average of total imports during 1995-97) would allow Chinese imports to potentially rise by 370 percent above the level in 1998 (table 4-3). The final TRQ in 2004 of 9.6 mmt of wheat would allow Chinese imports equal to average imports during 1994-95 and 1995-96. The 9.6 mmt of wheat is equal to 8.5 percent of consumption in 1997-98. Most of the increase in Chinese imports of U.S. wheat is likely to be the result of the removal of China's sanitary and phytosanitary ban on imports of U.S. wheat. The in-quota tariff on wheat is 1 percent ad valorem (the current applied tariff); the in-quota tariff on wheat flour is 6 percent ad valorem; and on groats and meal, including semolina, 9 percent ad valorem (current tariffs), and remain at these levels during the phase-in

of the quotas. The over-quota tariff rate on wheat declines from 80 percent to 65 percent ad valorem.

The initial Chinese TRQ in-quota for corn of 4.5 mmt would allow for a potential recovery of imports to the level during 1994-95. By 2004, the TRQ of 7.2 mmt of corn is 36 percent greater than actual imports during 1994-95, the peak year in the past four years (table 4-3). The 7.2 mmt of corn is equivalent to about 6 percent of consumption in 1997-98. The in-quota tariff on corn is 1 percent, and on corn meal and flour 9-10 percent ad valorem (current applied tariffs), and remain at these levels during the phase-in of the quotas. The over-quota tariff rates on corn seed declines from 40 percent to 20 percent ad valorem and on other corn declines from 80 percent to 65 percent ad valorem.

The operations of STEs are circumscribed in the agreement with a ceiling for the share of in-quota imports reserved for STEs, and a reallocation of their unused quota amounts to private individuals and enterprises. The STE share of in-quota imports for wheat is limited to 90 percent for 2000-2004. For corn, the STE share declines from 75 to 60 percent during the period. STEs are limited to 50 percent of the in-quota imports for short and medium grain rice, and to 90 percent for long grain rice imports.

These restrictions on STEs will tend to prevent them from blocking imports simply because of their initial allocation of in-quota products. It will reserve a role for private individuals and traders in imports of grains, particularly in corn and short and medium grain rice. However, STEs control the vast majority of wheat mills and most feed mills in China at the present time, so although trading functions would be more privately-owned, downstream purchasers (mills) are not.

The U.S. industry believes that central controls effectively negate the effect of any semblance of a market.[39] If central Government authorities deem there is a need to import, then they will continue to establish the amount and designate the suppliers. Central control of the grains sector is also related to parastatal political influence.

Rice

U.S. exports of rice to China were almost negligible in 1996-97 reaching only 3,592 metric tons, or almost 1 percent of China's total imports of 359,397 metric tons (table 4-3). U.S. rice has not been competitive in many Asian markets (the major exception being Japan) relative to third-country rice exporters. However, U.S. rice exports to all countries are substantial and reached 2.7 mmt in 1997-98, according to USDA data.

Prospects for the Chinese rice market are not as positive as for wheat and corn. Chinese per capita consumption of rice has been declining for several years, and China has itself been a substantial exporter of short and medium grain rice to adjacent markets, such as Japan and Korea. Moreover, large rice exporters, such as Thailand, Vietnam, and Australia, enjoy substantial transportation advantages to China over U.S. rice exporters.

The Chinese TRQ on rice will provide an opportunity for increased market access for U.S. rice products, but as with wheat and corn, other factors, such as STEs, the structure and implementation of the TRQ, and other countries' competitiveness in rice may limit U.S. access. The initial TRQ on rice would allow for access limits of 2.6 mmt, doubling to 5.3 mmt during the 5-year phase-in of the TRQ. The in-quota tariff on milled or rough rice is 1 percent ad valorem, and on rice flour, 9 percent ad valorem (the current applied duties). The over-quota tariff rate on rice declines from 80 percent to 65 percent ad valorem, except for broken rice, for which the tariff declines from 40 percent to 10 percent ad valorem.

In addition, one-half of the rice quota is reserved for short and medium grain; this may increase U.S. competitiveness over dominant Asian long-grain exporters like Thailand or Vietnam, but Australia is also a competitive exporter of short and medium grain rice. The United States is most competitive in exporting high-quality, high-valued, short and medium grain rice, in consumer-brand niche markets in southern China. Most Chinese rice grown in the South is long-grain, but consumer demand for short and medium grain rice has been growing.[40] The STEs engaged in rice imports will be limited to a 90-percent share of long grain rice.

During the negotiations, U.S. industry officials expressed the view that a Chinese TRQ on rice * * *.[41] In addition, Thailand already has preferential access to Chinese rice markets, and this may offset some of the minimum access of the TRQ.

[39] U.S. Grains Council, telephone interview by USITC staff, Apr. 7, 1999.

[40] USDA, FAS, *Grain and Feed Animal Report*, American Embassy, Beijing, Report No. CH8007, Mar. 3, 1998, p. 23.

[41] Official of USA Rice Federation, telephone interview with USITC staff, Apr. 6, 1999.

Because trade barriers virtually precluded any U.S. rice exports to the Chinese market, U.S. industry officials believe that U.S. rice exports would increase with a tariff that is set at market clearing levels. With limited state trading, a U.S. industry official estimated that U.S. exports to China probably would conservatively grow to a minimum of 50,000 tons.[42]

Oilseeds[43]

Oilseeds–primarily soybeans, peanuts, rapeseed, sunflower seed, and cottonseed–are seeds from which cooking and industrial oils are produced and from which oilmeals for use in livestock, poultry, and aquatics feeds are produced. In China, growing demand due to rising incomes and growth in the livestock sector coupled with stagnant domestic production, will likely provide the potential for significant opportunities for increased import penetration.[44] China's production of oilseed and oilseed meal has been significantly below its level of consumption and this deficit has been supplied by imports.

China is the world's largest producer of rapeseed and cottonseed, the second-largest producer of peanuts, and the fourth-largest producer of soybeans. With regard to oilseeds, China's farming methods for oilseed are comparable with those of other developing countries, but government and market incentives make production of grains or horticultural crops more profitable. In market year 1998/99, China's imports of oilseeds should further increase owing to flood damage in 1998 in traditional oilseed production areas.[45]

Current Trade Situation

China currently applies only tariffs on imports of most oilseeds. However, since April 1, 1996, China has applied TRQs on imports of most soybeans (HS 1201) and most rapeseed (HS 1205), but has not announced TRQ administration rules or quota volumes. According to USDA, the quotas on soybeans have not been implemented.[46] Table 4-4 shows China's tariff rates, and where applicable, over-quota duty rates. China does not reserve trade in oilseeds for its STEs, except for exports of soybeans. China also does not provide export subsidies for oilseeds, but soybeans are subject to state pricing controls. In addition, China imposes a 13-percent value added tax (VAT) on imports of most oilseeds and on soybean and other oilseed meals,[47] and a 17-percent VAT on processed peanuts. The VAT is charged only on imported products and not on domestic products, and hence may be inconsistent with the national treatment requirements of the WTO.[48]

In 1998, U.S. exports of oilseeds were concentrated in soybeans followed by a small quantity of sunflower seeds. The principal competition for U.S. exports of soybeans to China comes from Brazil and Argentina.[49] The United States exports no rapeseed to China and little anywhere else, with the United States being a net importer of rapeseed.[50] The principal suppliers of rapeseed to China are Canada, the EU, Australia, and Russia.[51]

Effects of Chinese Offer on U.S. Trade and Investment

Table 4-5 shows China's total consumption of soybeans and rapeseed, total imports from all sources, and imports from the United States. Total imports supplied an average of 12 percent of Chinese consumption of soybeans during 1994-95 to 1997-98. Under China's April 1999 offer, China has agreed to bind its current 3 percent ad valorem tariff on soybeans, eliminate any import quota (the April 1996 TRQ was announced, but not implemented), and not

[42] Ibid., and USA Rice Federation, written submission in connection with USITC inv. No. 332-396, Nov. 30, 1998. This estimate accounts for the fact that U.S. rice exports are generally of high-value, high-quality rice, while Thailand's exports of rice are generally of fragrant varieties, and Vietnam's of the low-quality, low-valued exports.

[43] For the purposes of this analysis, oilseeds are defined and classified in the Harmonized System (HS) of tariffs as follows: soybeans, HS 1201; peanuts, HS 1202; copra, HS 1203; flaxseed, HS 1204; rape or colza seed, HS 1205; sunflower seed, HS 1207; and other oilseeds, including cottonseed, palm nuts, and so forth, HS 1207.

[44] USDA, FAS, *Oilseeds and Products: China Oilseeds Annual Report*, Mar. 2, 1998, found at Internet address http://www.fas.usda.gov/scriptsw/AttacheRep/attache_frm.idc, retrieved Mar. 15, 1999.

[45] The USDA forecasts a 61-percent rise in Chinese imports of the two leading oilseeds (soybeans and rapeseed) from 3.3 mmt in 1997/98 to 5.3 mmt in 1998/99. Some of the higher soybean imports occurred because of a value-added tax (VAT) on soybean meal. USDA, FAS, *Oilseeds: World Markets and Trade*, May 1999, table 17.

[46] USDA, FAS, *Oilseeds and Products Annual*, CH8011, Apr. 7. 1998, p. 3, and *China: Oilseeds and Products Annual Report (Part I)*, CH9014, Mar. 1999, p. 1.

[47] USDA, FAS, *Oilseeds: World Markets and Trade*, Apr. 1999, p. 1.

[48] American Oilseed Coalition, written submission to the Commission, Mar. 9, 1999.

[49] *World Trade Atlas, China*, 1998.

[50] The United States imports approximately 80-85 percent of its needs. Official of the American Oilseed Coalition, telephone interview by USITC staff, Apr. 8, 1999.

[51] Chinese trade data from GTI Corp., *World Trade Atlas, China*, 1998, CD-ROM

Table 4-4
Oilseeds: Chinese tariff rates and U.S. exports to China, by value, 1998

HS subheading	Description	Tariff or in-quota tariff rate	Over-quota tariff rate	U.S. exports, 1998
		Percent ad valorem	*Percent ad valorem*	*1,000 dollars*
1201.0010	Seeds of soya beans	–	114	–
1201.0091	Other soya beans, whether or not broken, yellow	3	114	273,508
1201.0092	Other soya beans, whether or not broken, black	3	114	([2])
1201.0093	Other soya beans, whether or not broken, green	3	114	([2])
1201.0099	Other soya beans, whether or not broken, other	3	114	([2])
1205.0010	Seeds of rape or colza for seedlings	–	40	–
1205.0090	Other rape or colza seeds, whether or not broken	12	40	–
1202.1010-1202.2000, 1203.0000, 1204.0000, 1206.0010-1206.0090 1207.1010-1207.9990	Peanuts, copra, flaxseed (linseed), sunflower seeds, palm nuts and kernels, cotton seeds, castor oil seeds, sesamum seeds, mustard seeds, safflower seeds, poppy seeds, shea nuts (karite nuts), and other nuts and seeds	0-40	([1])	5,865
	Total	([1])	([1])	279,374

[1] Not applicable.
[2] Included in data for HS 1201.00.91.

Source: Compiled by the staff of the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce. Chinese tariff data from Office of the Customs Tariff Commission under the State Council and the Customs General Administration Tariff Department of the People's Republic of China, *Customs Import and Export Tariff of the People's Republic of China 1998* (Beijing: Economic Management Publishing House, 1998), pp. 63-64 and 616-617.

pursue a TRQ under WTO accession. This would continue the current market access U.S. soybeans receive in China, as well as the status quo tariff treatment on soybean imports.

For rapeseed, since the United States is a net importer of rapeseed, Canada, the EU, and Australia are likely to benefit from the tariff binding. Since market access for rapeseed is being negotiated by another WTO member, no TRQ commitments are therefore reflected in China's April 1999 offer. The TRQ on rapeseed could be estimated based upon minimum access of the average of 3 percent of annual consumption during 1994-97, which is greater than current access during this period. The initial tariff quota could be estimated at 267,000 metric tons, rising to the average of 5 percent of consumption, or 415,000 metric tons.

Vegetable Oil[52]

Vegetable oil is used for cooking, food production, and industrial purposes. China has relatively low per capita consumption of edible oils,[53] but demand is

[52] Vegetable oils are classified in Harmonized System tariff schedule under headings: soybean oil, HS 1507; peanut (groundnut) oil, HS 1508; olive oil, HS 1509; other oils obtained from olives, HS 1510; palm oil, HS 1511; sunflower seed, safflower or cottonseed oil, HS 1512; coconut oil, HS 1513; rapeseed, colza or mustard oil, HS 1514; other fixed vegetable fats and oils (including linseed, corn (maize), castor, tung, sesame, jojoba, and nut oils; animal or vegetable fats and oils, partly or wholly hydrogenated, HS 1516; margarine and edible mixtures or preparations of animal or vegetable fats or oils, other than of heading 1516, HS 1517; and animal or vegetable fats and oils, boiled, oxidized, dehydrated, sulfurized, blown, polymerized by heat in a vacuum or in inert gas or otherwise chemically modified, excluding those of heading 1516, and inedible mixtures of or preparations of animal or vegetable fats or oils, not elsewhere specified, HS 1518.

[53] Consumption is roughly 8 kilos per capita in China versus 25 kilos per capita of vegetable oil in the United States. Source: USDA, FAS, *Oilseeds and Products*,

Table 4-5
Oilseeds: Chinese consumption, total imports from all sources, and imports from the United States, 1995-98

Item	Market year	Total consumption	Chinese imports		
			Calendar year	Total, all sources	From the United States
		1,000 metric tons		*1,000 metric tons*	
Soybeans	10/94-9/95	15,760	1995	294	144
	10/95-9/96	14,295	1996	1,108	860
	10/96-9/97	15,301	1997	2,876	2,366
	10/97-9/98	17,500	1998	3,189	1,750
Rapeseed	10/94-9/95	7,727	1995	92	–
	10/95-9/96	9,777	1996	([1])	–
	10/96-9/97	9,204	1997	55	–
	10/97-9/98	9,865	1998	1,386	–

[1] Less than 500 metric tons.

Source: Compiled by the staff of the U.S. International Trade Commission from USDA, FAS, *Oilseeds and Products: China Annual Oilseed Report, 1997*, CH7006, Mar. 1997; *Oilseeds and Products: China Annual Oilseed Report, 1998,* Mar. 1998, CH8011; *China Annual Oilseeds Products*, 1996, CH6013, Mar. 1996; *Oilseeds and Products: China Annual Oilseed Report, 1999 (Part* I), CH9014, Mar. 1999; and Chinese trade data from GTI Corp., *World Trade Atlas, China, 1998*, CD-ROM.

increasing with rising incomes and the use of such oils in processed foods, such as snack foods and fried foods. Chinese consumers traditionally have preferred crude vegetable oil because it was perceived as having more flavor, but more refined salad oils are being consumed. Chinese oilseed crushers have been converting a portion of their capacity to the production of refined salad oils.

Current Trade Situation

China relied on imports to supply about 30 percent of its domestic consumption of fats[54] and oils during market years 1994/95 to 1997/98. In market year 1997/98, China imported about 4.4 mmt of fats and oils of which soybean oil constituted 46 percent, palm oil 37 percent, rapeseed oil 10 percent, tallow 3 percent, and all other vegetable oils 4 percent.[55] China exported an average of 0.5 mmt of fats and oils annually during the period, most of which was soybean oil. Consumption of fats and oils in China rose by about 5 percent annually during 1994/95 to 1997/98.

China applies tariffs and quotas on imports of vegetable oil. In early 1996, China announced that effective April 1, 1996, TRQs would apply to certain vegetable oils: soybean oil (Harmonized System (HS) heading 1507); groundnut (peanut) oil (HS heading 1508); palm oil (HS heading 1511); sunflower seed and safflower oil (HS heading 1512); rapeseed oil (HS heading 1514); and corn (maize) oil (HS heading 1515). Since then, China has not announced TRQ administration rules or quota volumes. Table 4-6 shows China's tariff rates and, where applicable, over-quota duty rates. At the beginning of 1997, China reduced the tariffs on palm oil from 18 percent ad valorem to roughly 9-12 percent ad valorem in order to reduce smuggling of palm oil; tariffs on palm oil were 9-10 percent ad valorem in 1998.

China also imposes a 13-percent VAT on imports of most vegetable oils and a 17-percent VAT on coconut oil. The VAT is charged only on imported products and not on domestic products; hence, it may be inconsistent with the national treatment requirements of the WTO.

STEs control most trade in fats and oils in China, with the principal STE being COFCO, although there are some joint-venture mills that import vegetable

[53]—*Continued*
America Embassy, Beijing, Mar. 31, 1999, report No. CH9014; and U.S. Bureau of Census, *Fats and Oils*, 1998.

[54] Fats are included in these data because animal fats are readily substitutable for vegetable oils; for example, beef tallow can be substituted for palm oil.

[55] *Oil World*, (Sept. 4, 1998), pp. 28-112. The 4.4 mmt of Chinese fats and oils imports are from *Oil World*, a very reputable industry journal; these estimates are substantially higher than the USDA data. *Oil World* estimated 2.0 mmt of soybean oil imports versus 0.829 mmt for USDA in 1997/98, and substantially more palm oil and rapeseed oil, and so forth.

Table 4-6
Vegetable oil: Chinese tariff rates and U.S. exports, by value, 1998

HS subheading	Description	Tariff or in-quota rate	Over-quota tariff rate	U.S. exports, 1998
		Percent ad valorem	*Percent ad valorem*	*1,000 dollars*
1507.1000	Soybean oil and its fractions, crude oil whether or not degummed	13	121.6	291,973
1507.9000	Soybean oil and its fractions, other	13	121.6	19,645
1508.1000	Ground-nut (peanut) oil and its fractions, crude oil	9.7	75	–
1508.9000	Ground-nut (peanut) oil and its fractions, other	9.7	75	–
1511.1000	Palm oil and its fractions, crude oil	9	30	–
1511.9000	Palm oil, other	10	30	–
1512.1100	Sunflower-seed or safflower oil and its fractions, crude oil	40	91.2	–
1512.1900	Other sunflower-seed or safflower oil and fractions	40	91.2	–
1514.1000	Rape, colza or mustard oil and fractions, crude oil	20	100	636
1514.9000	Other rape, colza or mustard oil and fractions	20	100	–
1515.2100	Maize (corn) oil and its fractions, crude oil	18	91.2	–
1515.2900	Other maize (corn) oil and its fractions	18	91.2	38
1509, 1510, 1512(pt.), 1513, 1515.1100, 1515.1900, 1515.3000-1515.9000, 1516, 1517, and 1518.	Olive, cotton-seed, coconut (copra), palm kernel or babassu, linseed, castor, tung, sesame, jojoba, and other vegetable oils; margarine; and other animal or vegetable fats and oils	7-40	(1)	1,701
	Total	(1)	(1)	313,993

1 Not applicable.

Source: Compiled by the staff of the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce. Chinese tariff data from Office of the Customs Tariff Commission under the State Council and the Customs General Administration Tariff Department of the People's Republic of China, *Customs Import and Export Tariff of the People's Republic of China 1998* (Beijing: Economic Management Publishing House, 1998), pp. 73-75 and 616-617.

oil.[56] Private companies can engage in export trade in fats and oils and oilseeds. In 1998, 2 of the 6 companies authorized to import vegetable oil were suspended from importing vegetable oil because of their involvement in smuggling, which had occurred for the past few years because of high domestic prices and low international prices for vegetable oils.[57]

The Chinese crushing industry in recent years has been operating at about 45 percent of capacity due to the unavailability of oilseeds as well as a lack of operating funds.[58] Modernization is occurring slowly with several large joint ventures and wholly foreign-owned crushing mills being constructed, the closing of some inefficient state-owned mills, and the restructuring of other state-owned mills. In 1996, the Chinese government restricted investment in new crushing capacity, but did not prohibit expansion of existing mills. Joint ventures and wholly

[56] USDA, FAS, *China Oilseed and Products Annual Report (Part I)*, CH9014, Mar. 8, 1999, found at Internet address: http://www.fas.usda.gov, retrieved May 10, 1999, p. 3.

[57] USDA, FAS, *China Oilseeds and Products Annual Report (Part I)*, CH9014, Mar. 8, 1999.

[58] Ibid., p. 3.

foreign-owned refineries have had to crush imported soybeans because import quota allocations for crude oil are virtually impossible to obtain.

The principal competitors for U.S. exporters in the Chinese market in 1998 for products currently under a TRQ are as follows:[59]

Product	Competitors
Soybean oil	Brazil and Argentina
Peanut oil	EU (a processor of peanuts into oil)
Palm oil	Malaysia and Indonesia
Sunflower or safflower seed oil	EU and Argentina
Rapeseed oil	EU and Canada
Corn oil	Transshipments from Hong Kong and Singapore; EU, Malaysia, and South Africa

It should be highlighted that U.S. soybean oil not only competes with foreign soybean oil, but also with virtually all other foreign oils, particularly palm and rapeseed oils.

Effects of Chinese TRQs on U.S. Trade and Investment

Soybean oil is the vegetable oil of major U.S. export interest. Another significant export is U.S. beef tallow which competes with vegetable oil. The United States is a minor exporter of corn, sunflower, safflower, and peanut oil, and does not produce palm oil. A substitute for soybean oil, palm oil is produced principally by Malaysia and Indonesia. However, any commensurate increase to the TRQ on palm oil will be reflected in the soybean oil TRQ in China's April 1999 offer.

Table 4-7 shows China's total consumption of these oils, TRQ minimum or current access, consumption, and total imports from all sources, and imports from the United States. The TRQ access level shown for soybean oil is from China's April 1999 offer since WTO market access for this product was negotiated between the United States and China. TRQ access levels for other oilseeds are estimated since WTO market access is being negotiated by other WTO members. Under China's April 1999 offer, the initial Chinese TRQ on soybean oil of 1.7 mmt would allow Chinese imports to double from the 1997-98, level, but still substantially below the 2.7 mmt of soybean oil imported in 1994-95. The in-quota tariff for soybean oil will be 9 percent ad valorem, below the 1998 13-percent tariff. The over-quota tariff rate would decline from 85 percent to 9 percent ad valorem. By the year 2005, the final quota of 3.3 mmt of soybean oil will exceed the 1994-95 import level by about 22 percent. The tariff-quota for soybean oil will be further increased commensurately with any autonomous increase in the tariff-quota quantity of any other vegetable oil. By 2005, the 3.3 mmt of soybean oil imports would be equal to almost 100 percent of China's soybean oil consumption in 1997-98, and to about 30 percent of total Chinese vegetable oil consumption of 10.7 mmt in 1997-98.[60] The TRQ will be eliminated in 2006.

Under China's April 1999 offer, the STEs engaged in soybean oil imports are limited to an initial 50-percent share of in-quota imports; the STE share declines to 10 percent by 2005, and to zero by 2006. The extent of any increase in U.S. exports of soybean oil to the Chinese market is likely to depend upon the role of STEs in this sector, how the TRQ is implemented, and the competitiveness of U.S. soybean oil exports.[61] Further limiting the effect of a TRQ is the trend in China toward importing more oilseeds and fewer imports of oil and oilmeals.[62]

Details on TRQs for other vegetable oils have not been announced by other WTO members. U.S. exports of corn oil are likely to remain negligible as China historically has not imported high-priced corn oil, preferring lower priced palm, soybean, and rapeseed oils (table 4-7), and because recent investments in China's corn processing industry are likely to allow Chinese producers to supply the domestic market.[63]

Cotton[64]

Cotton is an important crop in China and the United States. The principal use of cotton is in textile mill products, with other uses including the production

[59] GTI Corp., *World Trade Atlas, China*, 1998.

[60] Data are for all vegetable oils, including cotton seed and other miscellaneous oils not presented in table 4-7. USDA, FAS, *China Oilseeds and Products Annual Report (Part I)*, CH9014, Mar. 8, 1999.

[61] American Oilseeds Coalition, written submission to the Commission, Mar. 9, 1999.

[62] USDA, FAS, *China Oilseeds and Products Annual Report (Part I)*, CH9014, Mar. 8, 1999.

[63] FBIS, "Jilin Corn-Processing Joint Venture Gets Bank Loans," FTS19971126001609, Nov. 26, 1997, and "World Bank Funds Ethyl Alcohol Project in Jilin," Nov. 6, 1998, found at Internet address http://www.fbis.gov, retrieved Apr. 9, 1999.

[64] Raw cotton is classified under Harmonized System tariff schedule heading HS 5201 and combed or carded cotton is classified under HS 5203.

Table 4-7
Vegetable oils subject to TRQs: Chinese consumption, current and minimum access initial and final quotas, total imports from all sources, and imports from the United States, 1995-98

			Annual quotas and imports				
				Current and minimum access		Chinese imports	
Item	Market year	Total consumption	Calendar year	Initial quota year 2000	Final quota year 2004/5[1]	Total, all sources	From the United States
		1,000 metric tons		*1,000 metric tons*			
Soybean oil	10/94-9/95	2,826	1995	[2]1,718	[2]3,261	2,665	495
	10/95-9/96	2,459	1996	[2]1,718	[2]3,261	1,295	51
	10/96-9/97	2,754	1997	[2]1,718	[2]3,261	1,193	289
	10/97-9/98	2,945	1998	[2]1,718	[2]3,261	829	395
Ground-nut (peanut) oil	10/94-9/95	1,655	1995	[3]52	[3]87	14	3
	10/95-9/96	1,754	1996	[3]52	[3]87	5	4
	10/96-9/97	1,790	1997	[3]52	[3]87	11	9
	10/97-9/98	1,630	1998	[3]52	[3]87	9	5
Palm oil	10/94-9/95	1,280	1995	[4]5,480	([5])	1,666	13
	10/95-9/96	857	1996	[4]5,480	([5])	1,009	([6])
	10/96-9/97	1,072	1997	[4]5,480	([5])	1,146	([6])
	10/97-9/98	1,474	1998	[4]5,480	([5])	930	([6])
Sunflower or safflower seed oil	10/94-9/95	207	1995	[3]5	[3]8	1	1
	10/95-9/96	129	1996	[3]5	[3]8	6	([6])
	10/96-9/97	130	1997	[3]5	[3]8	2	([6])
	10/97-9/98	115	1998	[3]5	[3]8	1	([6])
Rapeseed oil	10/94-9/95	2,997	1995	[4]433	([5])	631	66
	10/95-9/96	3,088	1996	[4]433	([5])	316	([6])
	10/96-9/97	2,940	1997	[4]433	([5])	351	16
	10/97-9/98	3,357	1998	[4]433	([5])	285	13

See footnotes at end of table.

Table 4-7-*Continued*
Vegetable oils subject to TRQs: Chinese consumption, current and minimum access initial and final quotas, total imports from all sources, and imports from the United States, 1995-98

			Annual quotas and imports				
				Current and minimum access		Chinese imports	
Item	Market year	Total consumption	Calendar year	Initial quota year 2000	Final quota year 2004/5[1]	Total, all sources	From the United States
		1,000 metric tons		*1,000 metric tons*			
Maize (corn) oil	1/95-12/95	([5])	1995	([5])	([5])	7	2
	1/96-12/96	([5])	1996	([5])	([5])	1	([6])
	1/97-12/97	([5])	1997	([5])	([5])	2	([6])
	1/98-12/98	([5])	1998	([5])	([5])	2	([6])

[1] Final quota year for soybean oil is 2005 with the TRQ eliminated in 2006; for all others is 2004.
[2] From China's April 1999 offer.
[3] Estimated by the staff of the U.S. International Trade Commission from USDA data for minimum market access by averaging 3 percent and 5 percent of China's consumption for 1995-97, respectively, for the initial and final tariff quota levels.
[4] Estimated by the staff of the U.S. International Trade Commission from USDA data for current market access by averaging China's imports from the world for 1995-97.
[5] Not available.
[6] Less than 500 metric tons.

Source: Compiled by the staff of the U.S. International Trade Commission from U.S. Department of Agriculture, *Foreign Agricultural Service, Oilseeds and Products: China Annual Oilseed Report, 1996, CH6013,* Mar. 1996; *Oilseeds and Products: China Annual Oilseed Report, 1997*, CH7008, Feb. 1997; *Oilseeds and Products: China Annual Oilseed Report, 1998,* CH8011, Mar. 1998; *China: Oilseeds and Products Annual Report (Part I)*, CH9014, Mar. 1999; Chinese trade data from GTI Corp., *World Trade Atlas, China*, 1998, CD-ROM; and *Final 8 Apr. 1999 List of Offers*.

of very short staple cotton for use in military, hospital, and household applications. Cottonseed, a byproduct of cotton production, is processed into cottonseed oil, a major oil for home and foodservice cooking, and the frying of snack foods. Cottonseed oil cake and oil cake meal, byproducts of cottonseed oil processing, are used in the manufacture of animal feeds and other products. The western province of Xinjiang accounts for the production of some of China's best cotton in its desert climate. But high transportation costs and artificially high state-set prices have historically resulted in high stocks. The current cotton situation in China is one of excess inventories and weak demand resulting from artificially high domestic prices as compared with international prices. International joint ventures in China are not willing to purchase cotton at Chinese domestic prices. Industry officials estimate that China currently has a stockpile of cotton sufficient to supply China's cotton consumption needs for one to three years, depending upon the quality and condition of those stockpiles.

Current Trade Situation

China imposes tariffs, quotas, and licensing requirements on imports of cotton. In 1998, tariffs on cotton were 3 percent ad valorem[65] and U.S. exports of cotton to China totaled $118.6 million, based on U.S. trade data. China also imposes a 17-percent VAT on imports of cotton, which is refundable if an equivalent quantity of finished cotton product is re-exported. China has reserved the import of cotton, as well as the export of cotton, cotton threads, yarns, and woven material, to STEs. The principal STE, China Cotton Import/Export Corporation (CHINATEX), reportedly handled all the imports of cotton in 1994, one-half of

[65] Chinese tariff data from Office of the Customs Tariff Commission under the State Council of the People's Republic of China and the Customs General Administration Tariff Department of the People's Republic of China, *Customs Import and Export Tariff of the People's Republic of China 1998* (Beijing: Economic Management Publishing House, 1998), p. 267.

imports in 1995, and one-third in 1996.[66] China also maintains state pricing and export subsidies on cotton.

In 1995, China imported about 20 percent of its cotton demand while its production was at reportedly high levels and consumption was flat.[67] After January 1997, China's state cotton mills reportedly stopped importing cotton in order to prop up demand for domestic cotton.[68] However, joint venture mills did import cotton, as did joint venture operations of state-owned mills.

In the fall of 1997, the Chinese Government initiated reforms of the cotton sector. The reforms included allowing ginned cotton prices to textile mills to fluctuate within a specified price band; encouraging the consumption of Xinjiang cotton; significantly limiting imports beginning in 1998; and reducing planted cotton acreage along the Yellow River.[69] China has also reportedly attempted to sell cotton for export from its stocks at very low prices, but this effort has not been very successful, in part because of the poor quality of the cotton allocated for this activity.

Beginning in 1998, all cotton mills, including joint ventures, were required to obtain permits or quota allocations in order to import cotton, even for the re-export of finished or semi-finished cotton products.[70] Because imported cotton was generally lower in price than domestically produced cotton, mills that imported cotton for re-export would sometimes send the product to the domestic market and thereby displace domestic cotton which in turn would be stockpiled. Imports of cotton yarn and fabric are products that compete with imports of cotton. Most of China's yarn imports are from India and Pakistan.

The Chinese Government has encouraged Xinjiang cotton consumption through a number of measures. These include price reductions to mills for the purchase of government-stockpiled cotton produced in Xinjiang province; a program to refund the 13-percent VAT which mills pay on cotton produced in Xinjiang province; and an increase in the tax rebate from 9 percent to 11 percent for textile exports announced by China's Tax Bureau.[71]

[66] USDA, FAS, *China: Cotton Annual Report, 1997*, CH7026, May 31, 1997, p. 13, found at Internet address http://www.fas.usda.gov, retrieved Mar. 25, 1999.

[67] USDA, FAS, *China: Cotton Sector Reforms, 1997-98*, CH8062, Dec. 10, 1998, found at Internet address http://www.fas.usda.gov, retrieved Mar. 4, 1999.

[68] Ibid.

[69] Ibid.

[70] USDA, FAS, *China: Cotton Annual Report, 1998*, CH8021, May 31, 1998, p. 13, found at Internet address http://www.fas.usda.gov, retrieved Mar. 25, 1999.

[71] Letter to Robert Cassidy, USTR, from the National Cotton Council, Apr. 20, 1998.

Effects of Chinese TRQs on U.S. Trade and Investment

China's April 1999 offer is for a year 2000 quota quantity of 743,000 mt and a year 2004 quota quantity of 894,000 mt, both at an in-quota tariff of 1 percent ad valorem (table 4-8). China's over-quota tariff rate for cotton would decline from 76 percent to 68.8 percent in 2000, and then to 40 percent by 2004. These quota amounts represent an estimated 16-20 percent of Chinese consumption, more than the historical average shortfall imported.[72] But there is no guarantee the quotas will be filled. China's April 1999 offer reserves 33 percent of the quota for Chinese STEs. Prior to the April 1999 offer, China also indicated that it would not subsidize exports of cotton after joining the WTO, and that it would allow unlimited market access for cottonseed oil.

A Chinese TRQ on cotton imports might therefore provide a slightly improved market access opportunity for WTO cotton exporting nations, including the United States. However, there are several factors that may influence this improved market access:

- allocation of the TRQ by the State Development and Planning Commission (SDPC);
- allocation to end-users by the SDPC based on several different unclear criteria;
- allocation to STEs (33 percent share of TRQ) by the SDPC.

Therefore, the extent to which U.S. and other nations' exports might benefit from China's WTO accession depends largely on how the TRQ is administered by China and the extent to which STEs dominate. China's domestic cotton production and pricing policies may also have a significant impact on any potential benefits.

Chinese imports of cotton have fluctuated significantly since 1990, accounting for as low as 1.1 percent of domestic consumption in 1992 to a high of 19.3 percent in 1994. Imports accounted for 2 percent of consumption in marketing year1998. Future imports are likely to be limited by China's aggressive marketing of Xinjiang cotton exports, the application of China's 13-percent export VAT to cotton from that area purchased by joint-venture and foreign-owned textile mills, and China's stockpile of older cotton.

[72] Since 1990, China's cotton supply has fluctuated from a 21 percent surplus to a 24 percent shortfall, with the historical long-term average a 2.4 percent shortfall. See data from USDA, Economic Research Service, *Cotton And Wool Yearbook*, Dec. 4, 1998 (CWS-1998), table 22.

Table 4-8
Cotton: Chinese consumption, minimum access initial and final quotas, total imports from all sources, and imports from the United States, 1995-98

		Annual quotas and imports				
			Minimum access		Chinese imports	
Market year	Total consumption	Calendar year	Initial quota year 2000	Final quota year 2004	Total, all sources	From the United States
	1,000 metric tons		*1,000 metric tons*			
8/94-7/95	4,500	1995	743	894	761	492
8/95-7/96	4,300	1996	743	894	684	418
8/96-7/97	4,572	1997	743	894	783	393
8/97-7/98	4,300	1998	743	894	209	107

Source: Compiled by the staff of the U.S. International Trade Commission from U.S. Department of Agriculture, Foreign Agricultural Service, *China, People's Republic of: Cotton Update 1998*, GAIN Report CH8059; *Cotton Trade Update*, CH8035; and *China, People's Republic of: Cotton Annual Report, 1998,* CH8021; *China, People's Republic of: Cotton Annual Report, 1997,* CH7026; and *China, People's Republic of: October Cotton Situation Update,* CH6069; and *China, People's Republic of: Cotton Annual Report, 1996,* CH6034; all found at Internet address http://www.fas.usda.gov, retrieved Mar. 1999; Chinese trade data from GTI Corp., *World Trade Atlas, China, 1998*, CD-ROM; and "*Final 8 Apr. 1999 List of Offers*."

Imports of cotton by China will also be limited if subsidized domestic cotton is priced comparably with imported cotton. State assistance to the province of Xinjiang is likely to continue since it generates a significant share of its revenues from cotton. Nevertheless, there are problems with high input costs and large pest infestations. Further, STEs may still play a role in controlling imports as a means of controlling supply and demand of cotton in the implementation of Chinese central government policies.

The shift to the TRQ is unlikely to have any effect on U.S. investment in China, since under present Chinese investment policy, foreign investment in cotton development and production is restricted to joint ventures where the Chinese partner maintains a controlling position.[73] It is unlikely that these restrictions will change with China's accession to the WTO.

Sugar[74]

China is the third-largest producer of sugar in the world, surpassing the United States. In the early 1990s, China was a major sugar exporter because of overproduction, but in market years 1993/94-96/97, China was a major importer as Chinese sugar stocks dwindled. Then in 1997/98, China became a small net exporter of sugar. Sugar consumption is growing in China, as demand for soft drinks, baked goods, and confectionery rises. In China, however, sugar faces competition from lower-priced artificial sweeteners.[75] Sugar production is a large component of China's agricultural system, but exports of artificial sweeteners earn substantial foreign exchange. In China, sugar beet production acreage is declining as government policies promote the production of cotton in those areas, while sugarcane acreage is expanding marginally because of declining profitability of certain other crops such as rice and peanuts.

Current Trade Situation

Imports of sugar have effectively been banned in China. In 1998, China applied tariffs of 30 percent ad

[73] *Guide Catalogue of Industries for Foreign Investment*, approved by the State Council on Dec. 29, 1997, and effective Jan. 1, 1998, as found in China Council for the Promotion of International Trade (CCIPT), *China Business Guide*, appendix II, found at Internet address http://www.ccpit.org/engVersion/cp_infor/cp_cbg/cbg_fl122.html, retrieved Feb. 22, 1999.

[74] Sugar herein is defined as raw or unrefined or refined cane or beet sugar classified under Harmonized System (HS)

[74]—*Continued*
headings 1701.11 and 1701.12, and refined sugar classified under HS heading 1701.99.

[75] USDA, FAS, *1999 China Sugar Annual*, CH9020, Apr. 12, 1999, found at Internet address http://www.fas.usda.gov, retrieved May 8, 1999.

valorem on imports of raw sugar.[76] China also imposes licensing and quota requirements on sugar imports. Sugar imports are reserved for STEs. The China National Cereals, Oils, and Foodstuffs Import & Export Corporation (COFCO, formerly known as CEROILS) and its provincial branches are the most important trade agents in the industry. Import and export rights also have been granted to sugar mills and trading companies.

Since mid-1996, China has banned imports of sugar for "tolling"—that is, the importation of raw sugar for processing and re-export—largely to curtail sugar smuggling. (In 1995 and early 1996, sugar was imported under the pretense of processing it for re-export, but in fact was being sold into the domestic market because of high Chinese domestic prices. The influx of imports was partially responsible for a decline in Chinese sugar prices.[77]) Despite the ban, China continues to import sugar from Cuba under existing purchase commitments. In 1998, U.S. exports of sugar to China totaled only $47,000. During the mid-1990s, over 90 percent of China's imports of sugar were supplied by the world's major exporters of sugar–Australia, Cuba, and Thailand.[78]

China provides export subsidies for sugar.[79] In 1998, a new policy was implemented to promote sugar exports by rebating to the exporter one-half of the 17-percent VAT, thereby reducing the VAT to 8.5 percent. Sugar exports are subject to export licenses, which are reportedly readily available when there is surplus sugar.

Effects of Chinese TRQs on U.S. Trade and Investment

Market access would be based upon current access, with imports averaging almost 1.7 mmt during 1995-97, as derived from table 4-9. Since Australia is conducting WTO negotiations with China on sugar and therefore TRQ commitments on sugar are not reflected in China's April 1999 offer to the United States, table 4-9 provides estimated total consumption for China, an estimated initial tariff quota level, and China's imports from the United States and the world during 1995-98. The principal effect on U.S. trade and investment of China's TRQs on sugar and its market access commitments would be towards stabilizing world sugar trade.[80] In the past, China's shifts from exporter, to importer, to exporter have had a significant effect on world prices.

According to industry sources, U.S. exports of sugar are not expected to increase because the United States is likely to remain a net importer of sugar. As such, virtually all of U.S. production of sugar is domestically consumed. U.S. exports generally consist of tolling exports. The Chocolate Manufacturers Association (CMA) and the National Confectioners Association (NCA) have stated that it would be in their interest if China reduced its tariffs and other barriers on chewing gum (HS 1704.10) and sugar confectionery (HS 1704.90)–products which have a high sugar content.[81] In addition, CMA and NCA stated that China's current tariffs on raw materials—such as sugar, milk powder and other milk products, butter, dextrose and glucose syrup, and dried almonds, hazelnuts, seedless raisins, and vegetable fat—are excessively high and that if duties were reduced, foreign investment in China's confectionery industry would probably increase. In addition, China's investment policy encourages investment in the development of high-quality, high-yielding new varieties of sugar-bearing crops and technologies related to those crops.[82]

Wool and Wool Tops[83]

Under the WTO accession procedures, Australia and New Zealand, which annually export substantial quantities of wool and wool tops to China, are negotiating market access for these products.

[76] Chinese tariff data from Office of the Customs Tariff Commission under the State Council of the People's Republic of China and the Customs General Administration Tariff Department of the People's Republic of China, *Customs Import and Export Tariff of the People's Republic of China 1998* (Beijing: Economic Management Publishing House, 1998), p. 80.

[77] USDA, FAS, *1996 China Sugar Annual*, CH6021, Apr. 10, 1996, and *1999 China Sugar Annual*, CH9020, Apr. 12, 1999, found at Internet address http://www.fas.usda.gov, retrieved Mar. and May 1999.

[78] Chinese trade data from GTI Corp., *World Trade Atlas, China*, 1998, CD-ROM.

[79] WTO, Working Party on the Accession of China, *Communication from China*, WT/ACC/CHN/3, Aug. 16, 1996.

[80] American Sugar Alliance, written submission to the Commission, Mar. 9, 1999, p. 4.

[81] Chocolate Manufacturers Association and National Confectioners Association, written submission to the Commission, Mar. 9, 1999.

[82] *Guide Catalogue of Industries for Foreign Investment*, approved by the State Council on Dec. 29, 1997, and effective Jan. 1, 1998, as found in China Council for the Promotion of International Trade (CCIPT), *China Business Guide*, appendix II, found at Internet address http://www.ccpit.org/engVersion/cp_infor/cp_cbg/cbg_fl122.html, retrieved Feb. 22, 1999.

[83] Wool is classified under the Harmonized System (HS) under the following provisions: wool, not carded or combed, HS heading 5101and waste wool in HS subheading 5103.1010; carded wool, HS heading 5105.10, and other combed wool, HS heading 5105.21, and wool tops, HS heading 5105.29.

Table 4-9
Sugar, centrifugal: Chinese total consumption, current access, total imports from all sources, and imports from the United States, 1995-98

		Annual quotas and imports				
			Current access		Chinese imports	
Market year	Total consumption	Calendar year	Initial quota	Final quota	Total, all sources	From the United States
	1,000 metric tons		*1,000 metric tons*			
10/94-9/95 . . .	10,577	1995	11,700	([2])	2,953	([3])
10/95-9/96 . . .	8,040	1996	11,700	([2])	1,253	1
10/96-9/97 . . .	8,268	1997	11,700	([2])	797	([3])
10/97-9/98 . . .	9,012	1998	11,700	([2])	507	([3])

[1] Estimated by the staff of the U.S. International Trade Commission from USDA data for current market access by averaging China's imports from the world for 1995-97.
[2] Not available.
[3] Less than 500 tons.

Source: Compiled by the staff of the U.S. International Trade Commission from U.S. Department of Agriculture, China: Sugar Semi-Annual Report 1998, CH7050, Oct. 1997, China: Sugar Semi-Annual Report 1998, CH8044, Oct. 1998, and *China: Sugar Annual, 1996*, CH6021, found at Internet address http://www.fas.usda.gov, retrieved Mar. 1999, and Chinese trade data from GTI Corp., *World Trade Atlas, China*, 1998, CD-ROM.

Wool and wool tops are used extensively by China's export apparel manufacturing industry. Wool top is defined as a continuous untwisted strand of combed wool in which the fibers lie parallel, with short fibers having been combed out as noil[84] (short fibers). Wool top is the raw material used in the manufacture of worsted wool yarn.

The quality of Chinese wool has been characterized as "shorter, less sound, more heterogenous and having lower clean yields"[85] than wool from Australia, a major source of China's wool imports. Much of the quality problem is due to the fact that China's pastoral region is a harsh physical environment. In addition, Chinese sheep production and thus greasy[86] wool production is limited by the degraded condition of China's pastoral land.

The principal impetus for restricting China's wool imports has come from the wool-growing state farms that are controlled by the Chinese Ministry of Agriculture. Wool from the state farms is the best in China and therefore may compete with imports. In addition, there are individual herders that the Ministry of Agriculture notionally protects from the effects of wool imports.[87] Other organizations in China supporting limits on wool imports are the wool supply and marketing cooperatives and the chemical fiber industry. Those entities supporting increased imports are up-country textile mills that have difficulty obtaining quality wool, Chinese state-owned mills on the east coast, and township enterprise textile mills.[88]

In 1998, China joined the International Wool Textile Organization (IWTO).[89] Within two years of joining the IWTO, China must establish a special wool panel to arbitrate trade disputes and establish procedures for testing wool that conform with IWTO standards.[90] In December 1998, China's State Planning

[84] Noils are short, tangled and broken fibers, removed from woo1 during combing. Noils may contain vegetable matter and are used in the woolen and felt trade. Found at Internet address http://www.wool.com/lan, retrieved Apr. 28, 1999.

[85] Colin G. Brown, "On Advancing Australian Trade, Investment and Commercial Opportunities in China: Lessons from Wool Trade," *Australian Agribusiness Review*, vol. 6, 1998, found at Internet address http://www.agribusiness.asn.au/agribusinessreview/SinoAustraliantrade.html, retrieved Mar. 11, 1999.

[86] Wool as shorn from the sheep and which therefore has not been washed or otherwise cleaned.

[87] Colin G. Brown, "On Advancing Australian Trade, Investment and Commercial Opportunities in China: Lessons from Wool Trade."

[88] Ibid.

[89] The IWTO is the international body that represents the interests of the world's wool-textile trade and industry. IWTO represents 23 national trade associations, and promotes the interests of wool in commercial activity, including the functioning of the International Wool Textile Arbitration Agreement in wool production and in the wool textile trade and industry and the development and correct application of scientific test methods and regulations among its membership.

[90] The Woolmark Company, "Woolgrowers to Gain from China's Latest Move," undated, found at Internet address http://wool.com/news/global/gwool07.html, retrieved Mar. 22, 1999.

Table 4-10
Wool and wool tops: Chinese tariff rates and U.S. exports, by value, 1998

Sector/ HS sub-heading	Description	In-quota tariff rate	Over-quota tariff rate	U.S. exports, 1998
		Percent ad valorem	*Percent ad valorem*	*1,000 dollars*
5101.1000	Greasy, including fleece washed wool, shorn wool	1	42	336
5101.1900	Other, greasy, including fleece washed wool	1	42	26
5101.2100	Degreased, not carbonized, shorn wool	1	42	–
5101.2900	Other, degreased, not carbonized	1	42	11
5101.3000	Carbonized	1	42	–
5105.1000	Carded wool	3	42	–
5105.2100	Combed wool in fragments	3	42	–
5105.2900	Wool tops and other combed wool: other	3	42	3,182
	Total	(1)	(1)	3,555

[1] Not applicable.

Source: Compiled by the staff of the U.S. International Trade Commission and official statistics of the U.S. Department of Commerce. Chinese tariff data from Office of the Customs Tariff Commission under the State Council of the People's Republic of China and the Customs General Administration Tariff Department of the People's Republic of China, *Customs Import and Export Tariff of the People's Republic of China 1998* (Beijing: Economic Management Publishing House, 1998), pp. 265 and 616-617.

Commission issued a regulation that reportedly requires raw and semi-processed wools to be accompanied by a certificate from an official testing laboratory stating the kind of conditioning the wool has undergone.

Currently, the IWTO is attempting to clarify whether the Chinese regulation applies to imports, and whether certification must be performed by one of the three Chinese testing laboratories, or whether certification by IWTO-approved testing laboratories may be used.[91] The Woolmark Company, an Australian company that sells the rights to use the Woolmark logo on wool products, has been negotiating with China to "establish a new wool contract model in order to minimize future wool trading problems."[92] The issues covered in the talks include technical specifications, payment, shipping terms, testing and inspection, and arbitration arrangements.

Approximately 20 percent of Australia's wool exports are to China and Hong Kong and approximately 30 percent of New Zealand's wool exports are to China, annually. In 1998, about 15 percent of U.S. wool and wool top exports were to China.

China is currently taking steps to restructure its wool-spinning industry. In February 1999, China announced that its State Textile Industry Bureau will remove one million wool-spinning spindles from production capacity, 300,000 in 1999 alone.[93] Reportedly, China is the world's largest wool-processing nation, with 4.08 million wool spindles. The reform follows 7 consecutive years of losses in the wool-spinning industry, with state-owned wool spinning producers having a net loss of RMB819 million (US$98.7 million) in 1997.[94] Reportedly, approximately 25 percent of the wool-spinning companies in China suspended or halved production in 1997. The restructuring will focus on modernizing equipment and improving technology.

[91] IWTO, "Chinese Regulation Creates Uncertainty Amongst Exporters," IWTO Newsletter February 1999, found at Internet address http://www.iwto.org/News/Feb/body_feb.html, retrieved Mar. 11, 1999.

[92] The Woolmark Company, press release, "Woolmark Initiates Trade Talks with China," Nov. 22, 1998, found at Internet address http://www.wool.com/news.newsnett/nt01.html, retrieved Mar. 11, 1999.

[93] Ministry of Foreign Trade and Economic Cooperation (MOFTEC), news story, "Wool Spindle Removal Leads Way to Reform," Feb. 24, 1999, found at Internet address http://www.chinamarket.com.cn/viewen/, retrieved Mar. 12, 1999.

[94] Ibid.

Current Trade Situation

China first instituted TRQs on wool and wool tops in 1998, but has not published quota levels. Table 4-10 presents China's 1998 tariffs on wool and wool tops are shown in table 4-10, and the value of U.S. exports of these products to China in 1998. The Chinese imposition of TRQs resulted from an August 1997 agreement between New Zealand and China, a product of bilateral negotiations under China's WTO accession process. The bilateral agreement established Chinese in-quota tariffs of one percent ad valorem on wool over the next seven years with a global quota rising from 220,000 metric tons in 1998 to 287,000 metric tons in 2004.[95] China's tariff on imports of wool in 1996 ranged as high as 10 percent ad valorem. The Chinese tariff on wool tops was established at 3 percent ad valorem for seven years with quotas on wool tops rising from 60,000 metric tons to 80,000 metric tons. The 1996 tariff on Chinese imports of wool top was 15 percent ad valorem. The tariff reductions and quotas became effective on a most-favored-nation basis on January 1, 1998.

In addition to tariffs, China imposes a VAT on imports of greasy wool.[96] In 1998, China reduced the VAT from 17 percent to 13 percent on wool. Also in 1998, China increased its VAT rebate on apparel exports from 9 percent to 11 percent.

Wool and wool tops are also subject to licensing, which China has offered to eliminate immediately upon WTO accession. China's trade in wool and wool tops is currently subject to designated trading, with enterprises being granted the right to import or export. However, China has pledged under its accession protocol to eliminate designated trading in many products, including wool and wool tops, within three years upon entry into force of the protocol.

In September 1998, Chinese licensing requirements on wool and other raw materials were tightened in an effort to curb smuggling. The Chinese Government effort sought to strictly enforce quota restrictions and deny approvals for extra quantities.[97] The increase of wool smuggling over the past several years, including the illegal buying and selling of licenses to import wool, reportedly has adversely affected the Chinese wool industry.[98] The major reason for smuggling has been the gap between high prices for Chinese wool and low prices for imported wool.[99]

Recent U.S. exports of wool tops to China peaked at $13.5 million in 1995, and declined by more than one-half to $6.1 million in 1997 and by almost one-half again to $3.2 million in 1998. Similarly, U.S. exports to Korea, another major Asian market, declined from a peak of $20.0 million in 1995 to $1.2 million in 1998. Total U.S. exports of wool tops fell by 59 percent from a peak of $43.1 million in 1995 to $17.8 million in 1998. The decline in overall U.S. exports of wool and wool tops is due to a shift from the use of wool to manmade or "chemical" fibers in apparel, a large stockpile of wool in Australia, and a decline in demand from Asian textile producers due to reduced demand for their products caused by the Asian financial crisis.[100]

The principal suppliers of raw wool to the Chinese market in 1998, according to Chinese customs data, were Australia, New Zealand, Mongolia, Kazakhstan, Kyrgyz Republic, and Russia. The principal suppliers of carded wool and combed wool in fragments were Australia, New Zealand, Argentina, Uruguay, Taiwan, and the United Kingdom; and of wool tops were Australia, New Zealand, Uruguay, Argentina, Taiwan, and the United Kingdom.[101]

Effects of Chinese TRQs on U.S. Trade and Investment

The Chinese TRQ quota limits negotiated by New Zealand (presented above) are higher than those calculated by averaging annual current access (i.e., total imports) for 1995-97. Since Australia and New Zealand are conducting WTO negotiations with China on wool and wool tops, therefore TRQ commitments on wool and wool tops are not reflected in China's April 1999 offer to the United States; thus

[95] New Zealand Executive Government News Release Archive, "Smith Strikes Historic Trade Deal with China," found at Internet address http://www.executive.govt.nz/minister/smith/Isn0708.htm, retrieved Mar. 22, 1999.

[96] "China Reduces Value Added Tax on Imported Wool," Media Release, John Anderson, Minister for Primary Industries and Energy, Australia, DPIE 98/57A, May 5, 1998, found at Internet address http://netenergy.dpie.gov.au, retrieved May 4, 1999.

[97] FBIS, "MOFTEC Issues Supplement to Anti-Smuggling Circular," FTS19980930001628, Sept. 10, 1998, found at Internet address http://www.fbis.gov, retrieved May 6, 1999.

[98] FBIS, "Producers Want Government to Block Wool Smuggling," FTS19980930001628, Sept. 10, 1998, found at Internet address http://www.fbis.gov, retrieved May 6, 1999.

[99] Ibid.

[100] Official of the American Sheep Industry Association, telephone interview with USITC staff, Apr. 13, 1999. These reasons are also cited for a decline in New Zealand's exports to China. New Zealand Ministry of Agriculture and Forestry, "Wool" in *Situation and Outlook for New Zealand Agriculture and Forestry (SONZAF 98)*, found at Internet address http://www.maf.govt.nz/MAFnet/publications/sonzaf98/sonwool.htm, retrieved May 6, 1999.

[101] Chinese trade data from GTI Corp., *World Trade Atlas, China*, 1998, CD-ROM.

table 4-11 provides estimated total consumption for China, current access based on New Zealand's negotiation with China, China's total imports from all sources, and imports from the United States during 1995-98. Using Chinese import data from table 4-11, estimates of average annual current access are: for wool, 184,667 metric tons; for carded wool, 6,086 metric tons; for combed wool in fragments, 544 metric tons; and for wool tops, 47,028 metric tons.

According to U.S. industry sources, it is uncertain that U.S. exports of wool and wool tops to China will increase as a result of Chinese TRQs on these products. The United States is a net importer of wool and will likely become more so.[102] An industry source cites reportedly illegal transshipment of wool apparel and increasing imports of wool apparel from NAFTA partners Mexico and Canada as factors reducing demand for domestic wool for use in textile and apparel industries.[103] Currently, in some parts of the United States, the price of wool is so low that it covers only about 75 percent of the cost of shearing.[104] U.S. wool producers hope to introduce more price competition into the international wool market in order

[102] Official of the Utah Wool Marketing Association, telephone interview with USITC staff, Apr. 9, 1999.
[103] Ibid. U.S. imports of wool fiber have grown from 197.4 million pounds in 1993 to 415.0 million pounds in 1998. "U.S. Apparent Domestic Fiber Consumption," Table 6, *Fiber Organon*, vol. 70, No. 3, (Mar. 1999), p. 42.
[104] Ibid.

Table 4-11
Wool and wool tops: Chinese consumption, current access, imports from all sources, and imports from the United States, 1995-98

(Metric tons)

Product/ year	Total consumption	Current access: Initial quota	Current access: Final quota	Chinese imports: Total, all sources	Chinese imports: From the United States
Wool:					
1995	(1)	2220,000	2287,000	224,239	465
1996	463,236	2220,000	2287,000	175,392	180
1997	(1)	2220,000	2287,000	154,371	89
1998	(1)	2220,000	2287,000	134,361	76
Carded wool:					
1995	(1)	36,086	(1)	8,240	256
1996	(1)	36,086	(1)	5,064	50
1997	(1)	36,086	(1)	4,955	–
1998	(1)	36,086	(1)	2,724	–
Combed wool in fragments:					
1995	(1)	3544	(1)	695	102
1996	(1)	3544	(1)	807	100
1997	(1)	3544	(1)	131	–
1998	(1)	3544	(1)	55	–
Wool tops:					
1995	(1)	260,000	280,000	50,494	2,098
1996	(1)	260,000	280,000	44,950	1,404
1997	(1)	260,000	280,000	45,641	1,514
1998	(1)	260,000	280,000	31,766	814

[1] Not available.
[2] New Zealand Executive Government News Release Archive, "Smith Strikes Historic Trade Deal with China," found at Internet address http://www.executive.govt.nz/minister/smith/lsn0708.htm, retrieved Mar. 22, 1999.
[3] Estimated by the staff of the U.S. International Trade Commission from average of China's imports for 1995-97.

Source: Compiled by the staff of the U.S. International Trade Commission from data from the State Statistical Bureau, *China Statistical Year Book, 1998*, China Statistical Publishing House, 1998, p. 411, and *China Customs* Statistics Yearbook 1995, 1996, and Chinese trade data from GTI Corp., World Trade Atlas, China, 1998, CD-ROM.

to reduce the leverage that the current few wool supplying countries have with regard to prices in the wool market.[105] The U.S. wool industry is now responding to declining demand in the U.S. textile industry by seeking new export markets, and China may provide good market opportunities. They are working with the USDA's Foreign Agricultural Service to promote exports to China.

U.S. wool top producers attribute the decline in U.S. exports of wool tops to China to several causes. Foremost is a change in fashion that uses less wool fabric and has therefore reduced demand for wool tops from textile producers. Further, China has increased investment in wool combing processing and therefore is increasing the production of its own wool tops, a precursor of wool yarn. Lastly, with the decline in demand for wool tops and a drop in wool top prices, U.S. exporters have experienced contractual difficulties with Chinese purchasers of wool tops.[106] However, some U.S. wool top producers would like to return to the Chinese market because of a decline in U.S. consumption of wool.[107]

[105] Official of the American Sheep Industry Association, telephone interview with USITC staff, Apr. 13, 1999.

[106] U.S. wool top industry representative, telephone interview with USITC staff, Apr. 8, 1999.

[107] U.S. consumption of wool fiber by textile and apparel mills declined from a peak of 179.5 million pounds in 1993 to 123.6 million pounds in 1998. "U.S. Apparent Domestic Fiber Consumption," Table 6, *Fiber Organon*, Mar. 1999, p. 42.

CHAPTER 5
Effects of China's WTO Accession on U.S. Trade and Investment in Services

Introduction

This chapter describes World Trade Organization (WTO) requirements under the General Agreement on Trade in Services (GATS) and China's commitments in its April 1999 services offer. It then discusses specific service industries and identifies and assesses potential changes in U.S. trade and investment that would result if China were to accede to the WTO and implement its stated commitments. Subject service industries include:[1]

- Distribution services (wholesaling, retailing, and auxiliary distribution services)
- Accounting and management consulting services
- Motion picture and sound recording distribution services[2]
- Courier services
- Financial services (insurance, banking, and securities)
- Telecommunication services (basic and value-added services)

The analysis indicates that if China accedes to the WTO under the terms of the April 1999 services offer, significant benefits would accrue to U.S. service providers. Liberalization in most cases would be introduced in phases. U.S. direct investment in China would likely increase, ultimately resulting in higher sales through Chinese-based affiliates. The U.S. Embassy in Beijing estimates that removal of current Chinese non-tariff barriers (NTBs) pertaining to services industries would increase U.S. service providers' sales by between $3 billion and $5 billion per year.[3]

Two types of restrictions are primarily responsible for holding down U.S. sales of services in China, estimated at $575 million in 1996:[4] restrictions on foreign equity holdings and restrictions on the scope of permissible activities.[5] Under the terms of the April 1999 offer, U.S. firms' equity stakes could increase and their scope of activities could expand. As U.S. majority-owned affiliates' sales increase, income to U.S. parent companies would also increase, bringing a benefit not only to the companies directly but also to the U.S. balance of payments. Income returned to U.S. parent companies has the same effect as exports; i.e., it would drive down potential trade deficits or drive up potential trade surpluses.

[1] This chapter responds to requests made by the office of the United States Trade Representative (USTR) in letters dated December 18, 1998 and June 16, 1999. Consultation between staff of the U.S. Trade Representative's Office and the U.S. International Trade Commission subsequent to receipt of the December 18, 1998 request letter resulted in slight modification of the service industries to be examined. Commission agents' services, franchising, travel and tourism services, and advertising services were removed from the scope of the request, and banking and securities, accounting, and motion picture and sound recording distribution were added.

[2] For the purposes of this report, motion picture and sound recording distribution services will be referred to as audiovisual services.

[3] U.S. Department of State telegram, "China: Draft 1999 National Trade Estimate," message reference No. 000721, prepared by U.S. Embassy, Beijing, Jan. 22, 1999.

[4] USDOC, BEA, *Survey of Current Business*, Oct. 1998, p. 114.

[5] This estimate pertains to majority–owned affiliates only. Majority-owned foreign affiliates of U.S. firms are defined as foreign affiliates for which the combined direct and indirect ownership interest of all U.S. parents exceeds 50 percent. BEA reports less information on the activity of affiliates in which U.S. parents have minority stakes. BEA estimates that all U.S. affiliates in China, both majority-owned and minority-owned, sold services valued at $1.6 billion in 1995. USDOC, BEA, *U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and Their Foreign Affiliates, Preliminary 1995 Estimates*, table II.E.3.

This assessment derives from the Commission's public hearing on February 23, 1999; briefs filed in connection with the hearing; interviews with industry representatives; secondary sources, such as U.S. embassy cables, electronic databases; and industry and trade journals; and China's services offers of November 1997 and April 1999. * * *.[6]

The General Agreement on Trade in Services

China's potential accession to the WTO would require that it abide by the General Agreement on Trade in Services. This agreement comprises three elements: (1) a framework of rules for government regulation of trade and investment in services; (2) a set of national schedules wherein WTO members enter commitments to accord market access and national treatment principally on an industry-by-industry basis;[7] and (3) a series of annexes and Ministerial decisions that augment rules found in the framework and provide for follow-up activities or additional negotiations (figure 5-1).

National schedules provide most of the detail of the final agreement and comprise two sections: one section delineates horizontal, or cross-industry, commitments, while the second delineates industry-specific commitments. Horizontal commitments are applicable to all industries for which the nation has scheduled specific commitments, and as such, must be examined in conjunction with industry-specific commitments to assess the full extent of measures relating to a particular service industry.

China's Horizontal Commitments

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[6] Media reports have suggested that China may be reconsidering certain concessions made during the April 1999 negotiations, in particular those improving market access for foreign banking, insurance, and telecommunication service providers. See, for instance, "China May Reneg on WTO Offer," *Reactions*, June 1999, p. 10; "WTO Bid in Doubt as China Shrinks from Concessions," *Financial Times*, May 7, 1999; and Ian Johnson, "China, With Economy Slowing, Renews its Push to Join WTO," *Wall Street Journal*, June 4, 1999.

[7] National treatment accords to foreign firms the same rights and obligations accorded to domestic firms.

China's Industry-Specific Commitments

In contrast to the horizontal commitments, the industry-specific commitments in the April 1999 offer provide a significant degree of trade liberalization. This chapter first summarizes current non-tariff measures in China industry-by-industry, followed by an assessment of the most important aspects of the April 1999 offer. Some are rollback commitments (i.e., trade liberalizing commitments) and some are standstill commitments (i.e., commitments that bind current regulation or practice). The large majority are rollback commitments, which would loosen or terminate trade barriers (table 5-1). Standstill commitments do not liberalize trade, but they do achieve important objectives. They establish benchmarks that identify trade impediments and, under the terms of the GATS, deter the implementation of further restrictions. An assessment of the commitments is contained in the table that accompanies each industry discussion. Finally, this chapter discusses the likely effects on U.S. services trade and investment if the April 1999 offer were to become operative, summarized in table 5-2.

Distribution Services

Wholesaling and Retailing

The Chinese market is largely closed to U.S. retailers and wholesalers. Foreign invested enterprises are virtually prohibited from conducting retail and wholesale business, and foreign trade, except where allowed in experimental joint ventures.[8] Broadly, retailers and wholesalers face restrictions on establishment, foreign equity holdings, and geographic location. Onerous licensing restrictions, requiring each new retail store to be licensed and approved as a new joint venture with a new joint venture partner, hamper foreign invested retailing operations in China. These restrictions are particularly damaging to distribution service providers, since they rely heavily on the ability to establish a commercial presence in foreign markets as they expand globally. China's restrictions on retailing and wholesaling circumscribe the ability of

[8] MOFTEC, China Laws and Regulations, "Catalogue for the Guidance of Foreign Investment Industries," found at Internet address http://www.moftec.gov.cn/, retrieved Mar. 18, 1999; and Pam Baldinger, *Distribution of Goods in China: Regulatory Framework and Business Options* (Washington, DC: The U.S.-China Business Council, June 1998), p. 7.

Figure 5-1
Components of the General Agreement of Trade in Services (GATS)

GATS

Framework of Rules

Contains general obligations conducive to international trade in services, including:

- ☐ Most-Favored-Nation treatment
- ☐ Transparency
- ☐ Increasing participation of developing countries
- ☐ Economic integration
- ☐ Domestic regulation recognition
- ☐ Monopolies and exclusive service suppliers
- ☐ Business practices
- ☐ Emergency safeguard measures
- ☐ Payments and transfers
- ☐ Restrictions to safeguard the balance of payments
- ☐ Government procurement
- ☐ General exceptions
- ☐ Subsidies

National Schedules of Commitments

Submitted by each of 134 signatory countries. The schedules contain commitments regarding restrictions and limitations to market access and national treatment. Schedules typically comprise:

- ☐ Horizontal commitments
- ☐ Industry specific commitments with respect to 4 modes of supply:
  - – cross-border supply
  - – consumption abroad
  - – commercial presence
  - – presence of natural persons

Annexes and Ministerial Decisions

Provide information regarding on-going negotiations and rights to temporary MFN exemptions, including:

- ☐ Annex on MFN exemptions
- ☐ Annex on movement of natural persons supplying services under the Agreement
- ☐ Annex on air transport services
- ☐ Annex on financial services
- ☐ Second annex on financial services
- ☐ Annex on negotiations on maritime transport services
- ☐ Annex on telecommunications
- ☐ Annex on negotiations on basic telecommunications
- ☐ Decision on Institutional Arrangements for the GATS
- ☐ Decision on Certain Dispute Settlement Procedures for the GATS
- ☐ Decision on Trade in Services in the Environment
- ☐ Decision on Negotiations on Movement of Natural Persons
- ☐ Decision on Financial Services
- ☐ Decision on Negotiations on Maritime Transport Services
- ☐ Decision on Negotiations on Basic Telecommunications
- ☐ Decison on Professional Services
- ☐ Understanding on Commitments in Financial Services

Source: Compiled by USITC staff from United States Trade Representative, *Final texts of the GATT Uruguay Round Agreements Including the Agreement Establishing the World Trade Organization* (Washington, DC: GPO, 1994).

Table 5–1
Summary of China's April 1999 offer

Service industry	Rollback commitments	Standstill commitments	Uncertain
Distribution:			
Wholesaling/retailing	* * *	* * *	* * *
Auxiliary	* * *	* * *	* * *
Accounting/management consulting	* * *	* * *	* * *
Audiovisual	* * *	* * *	* * *
Courier	* * *	* * *	* * *
Finance:	* * *	* * *	* * *
Banking/securities	* * *	* * *	* * *
Insurance	* * *	* * *	* * *
Telecommunication	* * *	* * *	* * *
Total	* * *	* * *	* * *

Source: Compiled by USITC staff.

foreign service providers to establish a viable commercial presence. Restrictions on distribution service providers also affect U.S. producers and exporters of manufactured and agricultural goods, who rely on distributors to bring their goods to market. In a survey distributed by the U.S.-China Business Council, U.S. firms indicated that the removal of restrictions on distribution would have the single most beneficial impact on future business prospects in China.[9]

Assessment of the April 1999 Offer

China's commitments in its April 1999 offer represent gradual, but significant, rollbacks on these restrictions (table 5-3). Currently, foreign retailers are limited to joint ventures in six cities and five special economic zones (table 5-3, second row). Only two foreign invested retail joint ventures are permitted in each economic zone and city, with the exceptions of Beijing and Shanghai, which may have four apiece. Altogether, there are a total of 26 foreign invested retail joint ventures. Foreign ownership in these ventures is limited to 49 percent, and each joint venture is subject to a 30-year term limit. * * *.[10]

Currently, foreign investment in wholesaling is prohibited and no experimental joint ventures have been approved (first row).[11] China's April 1999 offer progressively liberalizes the wholesaling sector, ultimately offering complete liberalization of the sector by 2005.

The lack of trading rights also curtails the ability of U.S. retailers and wholesalers to distribute their products throughout China. Currently, China restricts the number and type of entities allowed to import goods. Only those firms that have been granted trading rights can legally import, export, and distribute products.[12] Trading rights are usually granted to Chinese firms only. For certain goods deemed to have special commercial importance, such as cotton, grains, vegetable oil, and petroleum, trading rights are reserved for state trading companies alone.[13] China would liberalize trading rights in its revised draft protocol.[14] In the protocol, China indicates that it would liberalize trading rights within three years of accession to the WTO. All firms in China would be able to import, export, and distribute most goods. Wholesaling firms would face a phase-in schedule for certain products. * * *.

China's April 1999 offer also addresses direct selling, * * *.[15] Currently, direct sellers must comply with "store selling restrictions," which requires them to maintain physical retail or wholesale outlets.[16] * * *.

[9] Baldinger, *Distribution of Goods in China: Regulatory Framework and Business Options*, p. 31.

[10] * * *.

[11] China has recently lifted its ban on foreign investment in the wholesaling sector, allowing foreign invested wholesaling joint ventures in Beijing, Shanghai, Tianjin and Chingqing. Leslie Chang, "China to Further Open Markets, Lifting Chances for WTO Entry," *Wall Street Journal*, July 9, 1999, p. A12.

[12] USDOC, ITA, *National Trade Estimate Reports, 1998-China*, found at Internet address http://domino.stat-usa.gov/, retrieved Feb. 9, 1999.

[13] Ibid.

[14] "Draft Protocol on China," May 27, 1997.

[15] * * *.

[16] U.S. Department of State telegram, "Foreign Direct Sellers Back in Business Under New Regulations," message reference No. 014472, prepared by U.S. Embassy, Beijing, Aug. 20, 1998; and Anna Fernau, U.S. Direct Selling Association, testimony submitted to the USITC, Mar. 9, 1999.

Table 5–2
Non–tariff barriers affecting services: Summary table

Service sector	Non–tariff barriers	Effects of April 1999 offer
Distribution services		
Wholesaling and retailing services	• Restrictions on establishment. • Foreign equity restrictions. • Limitations on permissible services.	• Increases in sales and direct investment.
Auxiliary distribution services	• Restrictions on establishment. • Limitations on permissible services. • Foreign equity restrictions.	• Increases in sales and direct investment.
Accounting and management consulting services	• Restrictions on establishment. • Foreign equity restrictions. • Restrictions on employment. • Limitations on permissible services.	• Increases in sales and direct investment.
Audiovisual services	• Restrictions on importation and distribution. • Restrictions on establishment. • Quotas • Limits on broadcasting. • Censorship • IPR violations. • Local production requirements. • Foreign investment restrictions.	• Increases in sales and investment. However, a restriction maintaining the Chinese Government's right to examine the content of audiovisual products would likely delay the release of foreign products. • The Motion Picture Association estimates increased revenues of $80 million for the motion picture industry.
Courier services	• Restrictions on establishment. • Restrictions on joint venture expansion. • Limitations on permissible services. • Restrictions on employment.	• Increases in sales and direct investment.
Financial services		
Banking and securities services	• Restrictions on establishment. • Minimum asset requirements. • Limitations on permissible services.	• Increases in sales and direct investment. • Broader scope of services. • Some restrictions were not addressed by the April 1999 offer, rendering the effects of operative offer uncertain. • * * *.
Insurance services	• Limitations on operation. • Restrictions on establishment. • Limitations on permissible services. • Investment restrictions. • Foreign equity limitations. • Employment restrictions.	• Increases in sales and direct investment. • Broader scope of services. • Some restrictions were not addressed by the April 1999 offer, rendering the effects of operative offer uncertain.

Table 5–2–*Continued*
Non–tariff barriers affecting services: Summary table

Service sector	Non–tariff barriers	Effects of April 1999 offer
Telecommunication services	• Restrictions on establishment. • Restrictions on foreign investment. • Limitations on permissible services. • Foreign equity limitations.	• Increases in sales and direct investment.
Entire service sector[1]	• Restrictions on establishment. • Limitations on permissible services. • Foreign equity restrictions. • Restrictions on joint venture expansion. • Restrictions on employment. • Investment restrictions.	• U.S. Embassy, Beijing estimates increased revenues of $3 to $5 billion.[2]

[1] This includes all service sectors, both those treated above as well as those not treated in this study.
[2] U.S. Department of State telegram, "China: Draft 1999 National Trade Estimate," message reference No. 000721, prepared by U.S. Embassy, Beijing, Jan. 22, 1999.

Source: Compiled by USITC staff.

Effects of Market Openings[17]

The current restrictive retailing and wholesaling environment in China has likely discouraged U.S. investment and trade. Most foreign firms that have invested in China have done so on discriminatory terms, exemplified by foreign investment caps and geographic restrictions. In other cases, Chinese regulations have proscribed certain lines of business, such as wholesaling. In addition, China has recently introduced regulatory uncertainty with respect to foreign invested retailing and direct selling, where commercial opportunities available to foreign firms have been scaled back by the central government.

The April 1999 offer outlines gradual rollbacks for all restrictions, leaving retailing and wholesaling services almost totally liberalized by 2005. The removal of equity, geographic, and establishment restrictions would enable wholesalers and retailers to increase their trade and investment in the Chinese market. For example, the removal of geographic and establishment restrictions would allow U.S. retailing firms to open a number of stores and thereby create economies of scale.[18] One industry representative stated that without liberalization, China would never develop a mass retail market as retailers cannot create economies of scale with a single unit.[19] A liberalized wholesaling sector, coupled with trading rights, would enable U.S. firms to distribute U.S.-manufactured products, thereby increasing both affiliate and cross-border trade with China. According to the Direct Selling Association, U.S. direct sellers operated in a relatively unfettered environment in 1997, and direct sales in China reached approximately $1 billion.[20] If barriers to direct selling were removed, sales would increase significantly, and foreign direct investment in manufacturing facilities would increase.

Auxiliary Distribution Services

For the purpose of this report, auxiliary distribution services include maintenance and repair services; rental and leasing services; technical testing, analysis, and freight inspection services; and storage and warehousing services. China's market for auxiliary distribution services is relatively closed to foreign participation. Presently, U.S. providers of auxiliary distribution services face restrictions on establishment, foreign equity holdings, and the scope of permissible services in China. Because wholesaling and retailing services are predominantly provided through foreign affiliates, it is probable that affiliates also provide services auxiliary to distribution.[21] Thus, restrictions

[17] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all wholesaling and retailing industry and association representatives contacted in connection with this investigation. No estimates were received.
[18] Industry representative, telephone interview with USITC staff, June 18, 1999.
[19] Ibid.
[20] Fernau, U.S. Direct Selling Association, testimony submitted to the USITC, Mar. 9, 1999.
[21] Data on U.S.-owned affiliates' sales of auxiliary distribution services in China are not available, and relevant cross-border trade data focus solely on maintenance and repair services. Thus, it is not possible to determine whether auxiliary distribution services are predominantly provided through cross-border exports or affiliate transactions.

Table 5-3
Distribution services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
1	Foreign investment in wholesaling is prohibited. Under the November 1997 offer wholesaling joint ventures will be permitted within two years of accession. Investment in these ventures will be limited to 49 percent.	* *	* *	* *	* *	* *	* *	*. *.	Sales and direct investment by U.S. distribution service providers would likely increase.
2	Foreign retailers are limited to minority-owned joint ventures in 6 cities and 5 special economic zones. The number of joint ventures permitted in each city is limited to two, except in Beijing and Shanghai, which may have four. Two of the four retailing joint ventures to be established in Beijing may set up branches in Beijing. Under the November 1997 offer two or three additional cities will be open to retail joint ventures upon accession. Two years after accession, all provincial capitals and major cities will be open and the quantitative limit will be relaxed.	* *	* *	* *	* *	* *	* *	*. *.	Sales and direct investment by U.S. retailers would likely increase.
3	Foreign ownership in retail joint ventures is limited to 49 percent.	* *	* *	* *	* *	* *	* *	*. *.	Sales and direct investment by U.S. retailers would increase.

Table 5-3—*Continued*
Distribution services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
4	The Chinese partner of a foreign invested retail joint venture must be a retailer. Foreign invested retail joint ventures are limited to 30 years' duration.	* *	* *	* *	* *	* *	* *	*. *.	Sales and direct investment by U.S. retailers would likely increase.
5	Direct sellers must comply with "store selling" regulations.	* *	* *	* *	* *	* *	* *	*. *.	Sales and investment by U.S. direct sellers would likely increase.

Source: Compiled by USITC staff.

on commercial presence likely have an important impact on the foreign provision of auxiliary distribution services.

Assessment of the April 1999 Offer

In its April 1999 commitments, * * *. With regard to maintenance and repair services, Chinese regulations currently state that foreign firms may only provide such services for those products that the firm itself produces in China (table 5-4, first row). Foreign firms are not generally permitted to service imported products, or goods produced by another firm.[22] * * *.

Reportedly, foreign firms are not permitted to operate leasing companies in China (second row).[23] China's November 1997 offer, which only applies to the rental and leasing of equipment and machinery, allows the provision of such services only through a joint venture. However, such joint ventures must be capitalized at a minimum of US$10 million, total foreign investment may not exceed 50 percent, and foreign investment is limited to financial institutions that are able to collect funds outside their home countries. In its April 1999 offer, * * *.

Current Chinese regulations permit foreign invested joint venture firms to provide trade commodity inspection and related services, but prohibit 100-percent foreign ownership of inspection firms (third row).[24] China also permits the foreign provision of technical testing, analysis, and freight inspection services through joint ventures. However, such joint ventures must be capitalized at a minimum of US$500,000, foreign service suppliers must have been in business inside their home country for a minimum of three years, and the lifetime of the venture is limited to 30 years. * * *.

In general, foreign firms are not permitted to own or manage warehouses (last row).[25] However, foreign firms are permitted to own warehouses in foreign trade zones (FTZs), provided that such warehouses are used to store materials necessary to their own production and service activities in China.[26] * * *.

[22] Daniel H. Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace* (Washington, DC: Institute for International Economics, Jan. 1999), p. 174.

[23] Lee M. Sands and Deborah M. Lehr, "Expanding Trade and Open Markets in China," *The China Business Review*, July/Aug. 1993, found at Internet address http://www.proquest.umi.com/, retrieved June 4, 1998.

[24] Iain K. McDaniels and Meredith Gavin Singer, "Knowing the Players," *The China Business Review*, May/June 1997, found at Internet address http://www.proquest.umi.com/, retrieved Mar. 3, 1999.

[25] USDOC, ITA, *National Trade Estimate Reports, 1998-China.*

Effects of Market Openings[27]

Under the April 1999 offer, sales and direct investment in China by U.S. providers of auxiliary distribution services would likely increase as a result of gradually expanding investment opportunities in maintenance and repair, rental and leasing, technical testing, analysis, and freight inspection, and storage and warehousing. The removal of restrictions on these auxiliary distribution services also could increase sales and investment in the retail and wholesale sectors. The removal of barriers to the foreign provision of all auxiliary distribution services would afford U.S. distribution firms enhanced control of the quality of services provided to Chinese customers and, thus, enhance the competitiveness of U.S. goods and services in the Chinese market.[28] According to industry representatives, restrictions on the provision of auxiliary distribution services are not a primary concern of U.S. wholesalers and retailers, as the ability to provide services supplementary to distribution is inconsequential if market access for the provision of wholesaling and retailing cannot be secured.[29] However, because restrictions imposed on any part of a distributor's support network could have an adverse effect on a distributor's overall ability to provide services in China, the removal of barriers on auxiliary distribution services may encourage increased participation by U.S. wholesalers and retailers in the Chinese market.[30]

Accounting and Management Consulting

China imposes significant limitations on commercial presence and on individual accountants who enter China to provide services to client companies. Present Chinese law requires foreign firms

[26] Pamela Baldinger, "Secrets of the Supply Chain," *The China Business Review*, Sept./Oct.1998, found at Internet address http://www.proquest.umi.com/, retrieved Feb. 18, 1999.

[27] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all auxiliary distribution industry and association representatives contacted in connection with this investigation. No estimates were received.

[28] Richard Brecher and Catherine Gelb, "Joining the World's Trading Club," *The China Business Review*, May/June 1997, found at Internet address http://www.proquest.umi.com/, retrieved June 2, 1998; and The American Chamber of Commerce, People's Republic of China, "Scope-of-Business Restrictions," found at Internet address http://www.amcham-china.org.cn/, retrieved Feb. 24, 1999.

[29] Industry representative, telephone interview by USITC staff, June 18, 1999.

[30] Ibid.

Table 5-4
Auxiliary distribution services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
1	Foreign firms may only provide maintenance and repair services for those products that the firm itself produces in China. China restricts the provision of maintenance and repair services to joint ventures. These commitments apply to the maintenance and repair of equipment.	* * * * * * *. * * * * * * *.	Foreign direct investment in the Chinese maintenance and repair services sector would likely increase. Thus, U.S. manufacturing firms would be better able to control the quality of services provided to Chinese customers and to differentiate their products according to the after-sales service they provide. This would increase the competitiveness of U.S. products, and increase sales and direct investment by U.S. wholesalers, retailers and providers of maintenance and repair services.
2	China only permits the foreign provision of rental and leasing services through an equity joint venture. However, such joint ventures must be capitalized at a minimum of US $10 million, total foreign investment may not surpass 50 percent, and investment is limited to financial institutions that are able to collect funds outside their home countries. These commitments apply to the rental and leasing of machinery and equipment.	* * * * * * *. * * * * * * *.	Foreign direct investment in the Chinese rental and leasing sector would likely increase gradually, resulting in increased sales and investment by U.S. wholesalers, retailers, and providers of rental and leasing services.

Table 5-4—*Continued*
Auxiliary distribution services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
3	Foreign-invested joint venture firms may provide trade commodity inspection and related services, but foreign inspection firms may not be wholly owned by foreign persons. Such joint ventures must be capitalized at a minimum of $500,000, foreign service suppliers must have been in business for a minimum of 3 years in order to participate in such joint ventures, and the lifetime of these joint ventures is limited to 30 years. These commitments do not apply to statutory inspection services. In addition, China's major testing regimes are complex, and testing laboratories and freight inspection services are subject to an onerous accreditation process.	*	*	*	*	*	*	*.	Foreign direct investment in the Chinese technical testing, analysis, and freight inspections services sectors would likely increase. This would likely lead to increased sales and direct investment by U.S. wholesalers, retailers, and providers of technical testing, analysis, and freight inspection services. However, China's commitments do not address the laboratory accreditation process, the transparency of which remains unaffected.
		*	*	*	*	*	*	*.	
4	Foreign firms are permitted to own warehouses only in foreign trade zones (FTZs), provided that such warehouses are used to store materials necessary to their own production and service activities in China. Outside of FTZs, foreign firms are not permitted to own or manage warehouses. Only foreign firms established as joint ventures are permitted to supply storage and warehousing services.	*	*	*	*	*	*	*.	Foreign direct investment in the Chinese warehousing services sector would likely increase, resulting in increased sales and investment by U.S. wholesalers, retailers, and providers of storage and warehousing services.
		*	*	*	*	*	*	*.	

Source: Compiled by USITC staff.

with joint ventures to divest their stake in stages. China also imposes ownership restrictions on foreign management of consulting and taxation firms, and prohibits foreign firms from supplying auditing services through representative offices in China. Restrictions placed on forms of establishment are significant as international sales of accounting and management consulting services take place primarily through foreign-based affiliates. In 1996, U.S. affiliate sales of accounting and management consulting services, totaling $7.5 billion, were nearly four times greater than U.S. cross-border exports, totaling $1.9 billion.

Assessment of the April 1999 Offer

China's April 1999 offer * * *.[31]

Effects of Market Openings[32]

Under the April 1999 offer, sales and direct investment would likely increase significantly for foreign management consulting and tax firms, especially through wholly-owned subsidiaries permitted by year-end 2005. Sales and investment by U.S. accounting firms would likely increase significantly as well, as the April 1999 offer appears to remove the uncertainty about the forms and legal environment in which foreign firms would be permitted to operate in China. * * *.

Leading U.S. accounting and management consulting firms reacted positively to China's April 1999 offer, as it reflected significant recent improvement in China's regulatory climate toward these services.[33] Industry representatives welcomed the * * *. International firms have benefitted from improvements in transparency and solicitation of firms' views on prospective Chinese legislation on accountancy. Recently, the regulator also issued the first approval of a Big Five firm's application to establish a branch office. * * *. Although no changes have been made to the regime for approving visas and work permits, firms report that current regulation in this area does not significantly impede entry. * * *.

[31] Industry representative, telephone interview by USITC staff, July 7, 1999.

[32] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all accounting and management consulting industry and association representatives contacted in connection with this investigation. No estimates were received.

[33] Industry representative, telephone interviews by USITC staff, July 1 and July 7, 1999.

Audiovisual Services

China's non-tariff barriers in audiovisual services restrict the importation and distribution of foreign products, and limit the degree to which foreign investment is permitted. Broadly, non-tariff barriers affecting the importation and distribution of foreign audiovisual products include the mandatory use of state-owned entities, censorship, and import quotas. Foreign investment barriers include restrictions on the formation of distribution joint ventures, and on the ownership and management of Chinese cinemas. According to official trade data, U.S. sales of audiovisual products in China have been achieved primarily through cross-border exports,[34] which totaled $8 million in 1997.[35]

Assessment of the April 1999 Offer

In its April 1999 offer, * * *.[36] First, prior to China's April 1999 offer, joint ventures between foreign firms and Chinese entities were permitted to distribute audiovisual works only after being granted the right to distribute by government authorities (table 5-6, first row). Such government approval thus served as an administrative barrier for joint ventures to engage in the distribution of audiovisual products. * * *.[37] [38] [39] [40] [41] [42]

* * * * * * *.[43] [44] [45]

* * * * * * *.[46] [47] [48] [49] [50]

[34] USDOC, BEA, *Survey of Current Business*, Oct. 1998, pp. 97 and 105. There are no official data pertaining to affiliate transactions in audiovisual services with China.

[35] The Motion Picture Association (MPA) reports total revenues of $18 million in China.

[36] * * *.

[37] Report from an association representing the international sound recording industry, Nov. 14, 1997, p. 12.

[38] * * *.

[39] MPA, "Trade Barriers to Exports of U.S. Filmed Entertainment," *1999 Trade Barriers Report*, p. 277; * * *.

[40] Ibid.

[41] MPA, "Trade Barriers to Exports of U.S. Filmed Entertainment," *1999 Trade Barriers Report*, p. 278; and Bonnie J.K. Richardson, Vice President, Trade and Federal Affairs, MPA testimony before the United States International Trade Commission, Feb. 23, 1999.

[42] * * *.

[43] Ibid.

[44] Ibid.

[45] MPA, "Trade Barriers to Exports of U.S. Filmed Entertainment," *1999 Trade Barriers Report*, p. 279.

[46] Ibid., p. 278.

[47] Ibid.

[48] Ibid., p. 280.

[49] Ibid.

[50] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all

Table 5-5
Accounting, management consulting services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
1	Foreign firms may establish representative offices in China, but they are prohibited from supplying auditing services, nor can they employ Chinese CPAs. The chief representative must hold a CPA or equivalent professional title.	* * * * * * *. * * * * * * *.	Sales by U.S. accounting firms would likely increase.
2	Contractual joint ventures only are permitted, provided foreign accounting firms have no less than 200 professionals and annual business income of no less than US$ 20 million. Only one joint venture per foreign firm is permitted. The chief representative must hold a CPA or equivalent professional title.	* * * * * * *. * * * * * * *.	Sales and direct investment by U.S. management consulting firms would likely increase.
3	In order to establish a branch office, joint venture applicants must demonstrate satisfactory operations for at least 3 years, must show that 50 percent of the managers are Chinese, and must have 10 qualified professionals in the branch, 5 of whom must be Chinese CPAs. Foreign firms are limited to one business entity per city.	* * * * * * *. * * * * * * *.	Sales and direct investment by U.S. accounting and management consulting firms would likely increase.
4	Foreign invested joint ventures must convert to a member firm, 100-percent owned by Chinese-licensed CPAs by March 2001. Foreign firms are required to separate their 50-percent share and must accept a new joint venture partner. In addition, Chinese employees of joint ventures must register in the name of the new Chinese partner.	* * * * * * *. * * * * * * *.	Sales and direct investment by U.S. accounting firms would likely increase.

Table 5-5—*Continued*
Accounting, management consulting services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
5	Foreign and Chinese accounting firms may set up an international accounting firm subject to ownership and staffing limits. International accounting firms may recruit Chinese firms as member firms and may own up to one-third of the Chinese member firms, limited to 5 years. Foreigners employed by Chinese member firms must be professionals and approved by Ministry of Finance.	*	*	*	*	*	*	*.	Sales and direct investment by U.S. accounting firms would likely increase. However, the nature of provisions allowed in contractual agreements is not specified.
		*	*	*	*	*	*	*.	
6	Employees of foreign accounting firms may obtain temporary permission to practice auditing services in China.	*	*	*	*	*	*	*.	The previous offer's provision for temporary permission to practice auditing would be unnecessary. Accordingly, sales and direct investment by U.S. accounting firms would likely increase.
		*	*	*	*	*	*	*.	
7	Foreigners providing accounting services in China may become partners of Chinese accounting firms which are members of international accounting firms.	*	*	*	*	*	*	*.	The previous offer's provision would be unnecessary. Accordingly, sales and direct investment by U.S. accounting firms would likely increase.
		*	*	*	*	*	*	*.	
8	Foreigners may acquire Chinese CPA status by passing the Chinese national CPA exam. After passing the exam, they may further engage in accounting services in China.	*	*	*	*	*	*	*.	More U.S. accountants can sit for the Chinese CPA exam and supply accounting services in China, likely increasing sales by U.S. firms or joint ventures.
		*	*	*	*	*	*	*.	

Source: Compiled by USITC staff.

Table 5-6
Audiovisual[1] services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
1	While the formation of audiovisual distribution joint ventures between foreign firms and Chinese entities is not explicitly proscribed by Chinese law, such joint ventures must be granted the right to distribute by government authorities.	* * * * * * *. * * * * * * *.	Sales and investment by U.S. audiovisual distribution firms in China would likely increase.
2	China International Television Corporation is the only entity authorized to approve imports of foreign television programs.	* * * * * * *. * * * * * * *.	Sales of U.S. foreign television programs in China would likely increase.
3	Foreign audiovisual works are subject to censorship by Chinese state-owned entities.	* * * * * * *. * * * * * * *.	No anticipated effect on sales and investment. Delays on the release of U.S. titles would continue.
4	China places a 10-film limit on the number of foreign films imported for theatrical release.	* * * * * * *. * * * * * * *.	Sales by U.S. motion picture companies in China would likely increase.
5	Foreign television programming is restricted to 25 percent total air time and to no more than 40 minutes of prime time.	* * * * * * *. * * * * * * *.	Sales of U.S. foreign television programs in China would likely increase.
6	The China Film Distribution and Exhibition Bureau, a state-owned entity, determines the contractual terms, play dates, and admission prices for motion pictures.	* * * * * * *. * * * * * * *.	No anticipated effect on sales and investment.
7	The China Film Bureau requires that film prints be made in local laboratories.	* * * * * * *. * * * * * * *.	Sales by U.S. motion picture companies in China would likely increase.

Table 5-6—*Continued*
Audiovisual[1] services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
8	Chinese entities fail to distinguish between rights granting home usage and those permitting public screening of videos.	*	*	*	*	*	*	*.	Sales by U.S. motion picture companies in China would likely increase.
		*	*	*	*	*	*	*.	
9	China's laws prohibit foreign investment in Chinese cinemas; however, the Chinese Government allows minority equity participation in local cinemas on a case-by-case basis.	*	*	*	*	*	*	*.	Direct investment by U.S. motion picture companies in China would likely increase.
		*	*	*	*	*	*	*.	

[1] China did not address commitments on audiovisual services in its November 1997 offer.

Source: Compiled by USITC staff.

Effects of Market Openings

Industry sources have indicated that it is difficult to provide a precise assessment of the effects of opening China's audiovisual services market. For example, in the case of the U.S. motion picture industry, such an assessment would depend largely on the degree to which import quotas on foreign films are relaxed.[51] Previously, industry representatives estimated that the elimination of market access barriers pertaining to foreign films would result in an additional $80 million in revenue for the U.S. motion picture industry.[52] The removal of restrictions on * * *, would likely further increase sales by U.S. audiovisual firms in China. Removal of these restrictions may still occur, as negotiations over audiovisual services will reportedly continue. [53]

Courier Services

The courier services industry, which includes the pickup and expedited delivery of parcels, packages, letters, and other articles, currently faces a number of non-tariff barriers in China. These barriers include restrictions on establishment, restrictions on joint venture expansion, limitations on permissible services, and restrictions on employment. Such restrictions adversely affect the foreign provision of courier services, which takes place primarily through foreign-based affiliates.

Assessment of the April 1999 Offer

China's April 1999 commitments on land-based courier services contain * * *. * * *.[54] Current restrictions limit freight forwarders and express operators to no more than a 50-percent share in joint ventures and require an investment of no less than $1 million in an entity whose term may not exceed 20 years.[55] China requires freight forwarders and express operators to observe a five-year waiting period for forming a second joint venture and a one-year waiting period for establishing branches. In addition, foreign freight forwarders are required to invest $120,000 for each additional branch.

China's November 1997 offer on inter-modal transportation, customs clearance, and warehousing services permits foreign service providers to operate * * *. Under current restrictions, only Chinese nationals and Chinese-owned companies are permitted to conduct surface transportation and to obtain customs brokerage licenses, and only Chinese nationals are permitted to operate bonded warehouses (fourth row). * * *.

Effects of Market Openings[56]

The implementation of the April 1999 offer on courier services reportedly would result in increased investment in China and increased employment in the United States.[57] Additionally, U.S. providers of courier services would have the ability * * *. [58] Overall, industry representatives are pleased with the April 1999 offer, * * *.[59]

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[50]–*Continued*
audiovisual services industry and association representatives contacted in connection with this investigation. Only the Motion Picture Association provided an estimate. Bonnie J.K. Richardson, Vice President, Trade and Federal Affairs, MPA testimony before the United States International Trade Commission, Feb. 23, 1999.

[51] Industry representative, interview by USITC staff, June 22, 1999.

[52] Bonnie J.K. Richardson, Vice President, Trade and Federal Affairs, MPA testimony before the United States International Trade Commission, Feb. 23, 1999.

[53] Office of the United States Trade Representative, press release, "Statement of Ambassador Charlene Barshefsky Regarding Broad Market Access Gains Resulting from China WTO Negotiations," Apr. 8, 1999.

[54] The Air Courier Conference of America (ACCA) substitutes the term "express services" for "courier services" and incorporates freight forwarding (CPC 7480) into their definition. The ACCA defines express services as all services related to the delivery of time sensitive documents or goods including, but not limited to, multi-modal transport, customs clearance and brokerage, freight forwarding, and logistics. Statement submitted to USTR by the ACCA regarding the World Trade Organization's Multilateral Negotiations, May 12, 1999.

[55] * * *.

[56] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all courier services industry and association representatives contacted in connection with this investigation. No estimates were received.

[57] United Parcel Service (UPS) indicates that liberalized trade with China could result in millions of dollars worth of investment in that country. UPS also states that every 70 packages that are transported to or from the Chinese market per day results in the creation of one UPS job in the United States. UPS, written comments submitted to USITC, Apr. 1, 1999, p. 1.

[58] * * *.

[59] Industry representatives, telephone interviews by USITC staff, June 22, 1999.

Table 5-7
Courier services:[1] Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
1	An express operator is prohibited from taking a majority share in a joint venture and is required to invest no less than US $1 million in an entity whose term may not exceed 20 years. There is also a one-year waiting period for establishing branches and a five-year waiting period for forming a second joint venture.	* * * * * * *. * * * * * * *.	U.S. providers of courier services would have a gradually increasing ability to invest in the Chinese courier services sector and to operate on a country-wide basis, resulting in increased sales in China.
2	Foreign freight forwarding companies that have been in business for a minimum of 3 years are permitted to set up joint ventures in China, provided that foreign ownership in the joint venture does not surpass 50 percent, the joint venture is capitalized at not less than US $1 million, and the lifetime of the joint venture is limited to 20 years. Joint ventures which have been in operation for at least 1 year can establish branches, provided that both sides have finalized their registered capital, and US $120,000 is added for each additional branch. Foreign firms that have been operating through a joint venture for at least 5 years may establish a second joint venture. These commitments do not apply to freight inspection services.	* * * * * * *. * * * * * * *.	Foreign direct investment in the Chinese freight forwarding sector would likely increase, potentially resulting in increased sales by U.S. providers of freight forwarding and courier services.

Table 5-7—*Continued*
Courier services:[1] Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
3	Currently, companies with foreign ownership are not allowed to conduct ground transportation. Only Chinese nationals and Chinese-owned companies are permitted to conduct surface transportation.	*	*	*	*	*	*	*.	Foreign direct investment in the Chinese ground transportation sector would likely increase, resulting in increased sales by U.S. providers of courier services and ground transportation services.
	Under the November 1997 offer, foreign provision of freight transport services by road is permitted only through joint ventures, and limitations on national treatment for such foreign service suppliers are subject to unbound restrictions. These commitments apply to the transportation of frozen or refrigerated goods, bulk liquids or gases, and containerized freight.	*	*	*	*	*	*	*.	
4	Companies with foreign ownership are not allowed to conduct warehousing, customs clearance, consolidation, or related services. Only Chinese nationals are permitted to operate bonded warehouses. Only Chinese nationals and Chinese-owned companies are permitted to obtain customs brokers licenses.	*	*	*	*	*	*	*.	Foreign direct investment in the Chinese warehousing services sector would likely increase. This would likely result in increased sales by U.S. providers of customs clearance, warehousing, and courier services.
	Under the November 1997 offer, the foreign provision of customs clearance and warehousing services is permitted only through joint ventures.	*	*	*	*	*	*	*.	

[1] China did not offer any commitments on courier services in its November 1997 offer.

Source: Compiled by USITC staff.

Financial Services

Banking and Securities

The banking and securities industries currently face a variety of non-tariff barriers in China. For banks and securities companies, the barriers include restrictions on establishment, minimum asset requirements, geographical restrictions, and limitations on the types of services they are permitted to offer. The most severe restriction on banks is their limited ability to do business in the local Chinese currency, the renminbi. Currently, licensed branches of foreign banks located only in Shanghai and Shenzhen may conduct business in renminbi with foreign businesses and a few state-owned Chinese companies operating in those cities.[60] Foreign securities companies are currently prohibited from engaging in most types of business in China. They are permitted to open representative offices, but cannot open branches or subsidiaries. Representative offices are limited to off-shore activities, most operating through Hong Kong, and to trading in B-shares[61] on the Shanghai and Shenzhen stock exchanges through Chinese stock brokers. Morgan Stanley, the U.S.-based investment bank, owns 35 percent of a joint venture operation with China Construction Bank. As of June 1999, it was the only foreign investment bank operating in China.[62]

Banks and securities firms operate primarily through affiliates rather than through cross-border trade. It is therefore essential to U.S. banks that they are permitted to establish affiliates in China, in a wide variety of geographic locations within the country, and are permitted to offer their services to domestic and foreign companies and individuals. Securities companies can and do operate through cross-border trade in China, by offering shares of Chinese firms on overseas exchanges. However, this is only a small part of the potential securities business in China. In order to expand into fields such as securities trading, investment banking, and asset management for Chinese firms and individuals, U.S. securities firms need to establish a commercial presence within the country. In 1997, cross-border exports of banking and securities services to China totaled $54 million.[63]

Assessment of the April 1999 Offer

The Chinese Government's April 1999 offer on banking represents a * * *.[64] [65]

For securities companies, the schedule * * *.[66] [67]

Effects of Market Openings[68]

According to banking industry representatives interviewed for this report, liberalization of the restrictions on banks would lead U.S. firms to increase their business in China and expand both their geographic presence and their product lines,

[60] Media reports state that foreign banks may now conduct renminbi business in five areas surrounding Shanghai and Shenzhen. "Foreign Banks Give Muted Welcome to Local Currency Relaxation," *Inside China Today*, Aug. 10, 1999, found at Internet address http://www.insidechina.com, retrieved Aug. 10, 1999; and "Beijing Eases Yuan Curbs, Foreign Units Allowed to Widen Presence," *South China Morning Post*, Aug. 6, 1999, found at Internet address http//today.newscast.com, retrieved Aug. 25, 1999.

[61] China's securities markets operate on a two-tier system. The Shanghai and Shenzhen markets issue both A-shares and B-shares. A-shares are denominated in renminbi and are currently open only to domestic Chinese investors. B-shares are denominated in U.S. dollars in Shanghai and in Hong Kong dollars in Shenzhen. These shares are theoretically available only to foreign investors, although many of the shares are reportedly held by Chinese investors who have circumvented the regulations. As of February 1997 (latest available), the A-share market (Shanghai and Shenzhen combined) had a total value of $193 billion, with a typical trading volume of RMB 434 million per day. The B-share market is significantly smaller, valued at $3.9 billion, with average daily business of RMB 11.5 million. USDOC, ITA, "China: Investment Banking," Market Research Report, Aug. 1, 1997, found at Internet address http://www.stat-usa.gov/, retrieved Mar. 17, 1999.

[62] Industry representative, telephone interview with USITC staff, June 22, 1999. See also "Winning the China game," Euromoney, Sept. 1997, found at Internet address http://www.euromoney.com/, retrieved Mar. 12, 1999.

[63] USDOC, BEA, *Survey of Current Business*, Oct. 1998, p. 104.

[64] Industry representatives agreed that the expansion of renminbi business to five areas near Shanghai and Shenzhen was a positive step that would help them expand their business in China, but permission to conduct business in renminbi with domestic customers would be a more important change. "Foreign Banks Give Muted Welcome to Local Currency Relaxation," *Inside China Today*, Aug. 10, 1999, found at Internet address http://www.insidechina.com, retrieved Aug. 10, 1999; "Beijing Eases Yuan Curbs, Foreign Units Allowed to Widen Presence," *South China Morning Post*, Aug. 6, 1999, found at Internet address http://today.newscast.com, retrieved Aug. 25, 1999; and industry representative, telephone interview with USITC staff, Aug. 24, 1999.

[65] Industry representatives, telephone interviews with USITC staff, June 17-22, 1999.

[66] * * *.

[67] H-shares are shares of mainland Chinese companies that are traded on the Hong Kong stock exchange.

[68] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all banking and securities industry and association representatives contacted in connection with this investigation. Only one firm provided an estimate. Industry representative, telephone interview with USITC staff, June 21, 1999.

Table 5-8
Banking and securities services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
1	Banking								
2	Banking services covered by the November 1997 offer: (a) foreign currency business - deposit taking, payment and money transmission service, lending, guarantees; (b) local currency business - deposit taking, lending, settlement, guarantee, investment in national debt and financial bonds.	*	*	*	*	*	*	*.	No anticipated effect on sales and investment.
		*	*	*	*	*	*	*.	
3	Banking: foreign currency business:								
4	Foreign financial institutions need government approval for new representative offices and branches, which is granted on a discretionary, case-by-case basis.	*	*	*	*	*	*	*.	Sales and investment by U.S. banks would likely increase.
		*	*	*	*	*	*	*.	
5	Foreign banks may operate in China as branches, joint venture banks, foreign finance companies, or wholly-owned subsidiaries only.	*	*	*	*	*	*	*.	Investment by U.S. banks would likely increase, due to the opportunity to open more branches.
		*	*	*	*	*	*	*.	
6	To establish a subsidiary or joint venture, foreign banks must have had a representative office in China for two years, and have total assets of more than $10 billion.	*	*	*	*	*	*	*.	Investment in subsidiaries and joint ventures would likely increase more rapidly than in the past.
		*	*	*	*	*	*	*.	
7	To establish a branch, foreign banks must have had a representative office in China for two years, and have total assets of more than $20 billion.	*	*	*	*	*	*	*.	Investment in bank branches would likely increase more rapidly than in the past.
		*	*	*	*	*	*	*.	
8	Foreign banks may not do business with individual Chinese citizens, only with foreign companies and Chinese companies which have foreign currency-denominated loans from foreign banks.	*	*	*	*	*	*	*.	Investment by U.S. banks would likely increase. This is a key market liberalization point for U.S. banks.
		*	*	*	*	*	*	*.	

Table 5-8—*Continued*
Banking and securities services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
9	Foreign bank operations are limited to 24 cities in China. Representative offices are permitted outside these cities.	*	*	*	*	*	*	*.	Investment by U.S. banks would likely increase, assuming favorable market conditions.
		*	*	*	*	*	*	*.	
10	Banking: local currency business:								
11	Foreign financial institutions need government approval for new representative offices and branches, which is granted on a discretionary, case-by-case basis.	*	*	*	*	*	*	*.	Potential for greater investment, depending on the profitability of the local currency business.
		*	*	*	*	*	*	*.	
12	Local currency business is limited to Shanghai and Shenzhen and several surrounding provinces.	*	*	*	*	*	*	*.	Potential for greater investment, depending on the profitability of the local currency business.
		*	*	*	*	*	*	*.	
13	Foreign banks are generally limited to local currency business with foreign companies and foreign individuals resident in China for more than one year. Foreign banks may also engage in limited business with state-owned enterprises that already do business in foreign currency.	*	*	*	*	*	*	*.	Investment by U.S. banks may increase, depending on market conditions.
		*	*	*	*	*	*	*.	
14	Local currency liabilities of foreign banks may not exceed 35 percent of their total foreign exchange liabilities.	*	*	*	*	*	*	*.	Uncertain
15	Foreign banks must accumulate RMB 30 million ($3.6 million) as operating capital, obtained from the People's Bank of China. It is uncertain whether approval to convert additional amounts is to be granted.	*	*	*	*	*	*	*.	Uncertain
16	Foreign banks must have 3 years' business operations in China, and have been profit-making for 2 consecutive years prior to the license application.	*	*	*	*	*	*	*.	Investment by U.S. banks would likely increase, as most foreign banks wanting to open in China have been profitable in their global operations for at least two years.
		*	*	*	*	*	*	*.	

Table 5-8—*Continued*
Banking and securities services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
17	In the year prior to their license application, foreign banks must have average monthly outstanding loans from foreign currency business of more than $350 million in China, and outstanding foreign exchange loans in China must account for more than 50 percent of the institution's total foreign exchange assets.	* *	* *	* *	* *	* *	* *	*. *.	Investment and sales by U.S. banks would likely increase, as there would be fewer restrictions on their operations in China.
18	A subsidiary of a foreign bank or a joint venture must draw 25 percent of its net profit after tax each year as reserve, until the total amount of its paid-in capital plus reserve funds is equal to its registered capital.	*	*	*	*	*	*	*.	Uncertain
19	A branch of a foreign bank must keep 25 percent of its after tax profit in China to supplement its operating funds until the kept profit is equal to its operating funds.	*	*	*	*	*	*	*.	Uncertain
20	The total amount of investment or loans and other facilities granted by a foreign bank to any enterprise can not be more than 30 percent of its paid-in capital plus total reserves, unless special approval is granted.	*	*	*	*	*	*	*.	Uncertain
21	Branches of foreign banks in China are required to maintain at least RMB 20 million of operating capital in their Chinese branches.	*	*	*	*	*	*	*.	Uncertain

Table 5-8—*Continued*
Banking and securities services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
22	Foreign banks must maintain two separate reserves for their RMB business equaling 18 percent of its renminbi deposits, so foreign banks must keep two separate sets of books for foreign vs. local currency business.	*	*	*	*	*	*	*.	Uncertain
23	Foreign banks are not permitted to offer syndicated lending services in domestic currency, mortgages, leasing services, agency banking, domestic interbank deposits, credits, lending, or discounting. The November 1997 offer applies to deposit taking, lending, settlement, guarantee, investment in national debt, and financial bonds.	*	*	*	*	*	*	*.	Sales by U.S. banks would likely increase.
		*	*	*	*	*	*	*.	
24	Securities								
25	Securities services covered by the November 1997 offer: trading for account of customers, custodial depository and trust service, advisory and other auxiliary services, provision and transfer of financial information, data processing and related software.	*	*	*	*	*	*	*.	Greater range of services covered by the commitments would likely lead to increased sales and investment by U.S. securities firms.
		*	*	*	*	*	*	*.	

Table 5-8—*Continued*
Banking and securities services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer							Effects of April 1999 offer on trade and investment
26	Foreign securities firms may establish representative offices with approval by the People's Bank of China, but may not open subsidiaries or branches.	*	*	*	*	*	*	*.	Some increase in sales by U.S. securities firms is likely.
	Foreign companies may not sell foreign mutual funds or any other form of foreign securities to Chinese citizens or institutions.	*	*	*	*	*	*	*.	
	Pension funds remain under government control.								
27	Representative offices are limited to off-shore activities and, for stock exchange members, to transactions in B-shares only.	*	*	*	*	*	*	*.	Increased sales by U.S. securities firms is likely, although the amount of sales would depend heavily on the definition of "special member" of the stock exchanges. "Special member" is not defined in the offer.
		*	*	*	*	*	*	*.	
28	Foreign investment banks cannot underwrite A-shares, government securities, or non-government bank issues, nor can they purchase or act as dealers in the secondary markets for any form of renminbi-denominated security.	*	*	*	*	*	*	*.	Increased sales by U.S. securities firms are likely.
		*	*	*	*	*	*	*.	
29	Foreign securities firms may purchase seats on the Shanghai and Shenzhen stock exchanges to broker B-shares, but they must work with domestic brokers for all of their transactions on the basis of a shared commission.	*	*	*	*	*	*	*.	Increased sales by U.S. securities firms are likely.
		*	*	*	*	*	*	*.	

Table 5-8—*Continued*
Banking and securities services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
30	Foreign firms are required to reapply for their B-share trading licenses on an annual basis.	* * * * * * *.	Uncertain

[1] Media reports state that foreign banks may now conduct renminbi business in Shanghai and Shenzhen, and five surrounding areas. "Foreign Banks Give Muted Welcome to Local Currency Relaxation," *Inside China Today*, Aug. 10, 1999, found at Internet address http://www.insidechina.com, retrieved Aug. 10, 1999; and "Beijing Eases Yuan Curbs, Foreign Units Allowed to Widen Presence," *South China Morning Post*, Aug. 6, 1999, found at Internet address http://today.newscast.com, retrieved Aug. 25, 1999.

Source: Compiled by USITC staff.

particularly in the wholesale banking industry. New customers are likely to include both Chinese and foreign firms. ****.[69]

Securities industry representatives expressed disappointment with the April 1999 offer. * * *.[70] Representatives predicted that if the April 1999 offer goes into effect, there would be a small amount of additional investment by U.S. securities firms, but much less than the * * *. This assessment could improve, however, as a result of continuing negotiations in the banking/securities industry.

Insurance Services

The insurance industry currently faces a variety of non-tariff barriers to doing business in China, including restrictions on establishment, geographical restrictions, limitations on operation, and limitations on permissible services. The most severe limitation for all insurance companies is the difficulty in obtaining an operating license. Licenses are currently granted one at a time, through a non-transparent process. Beyond the license issue, the most severe limitation for life insurance companies is the ban on group sales; life insurance companies are currently permitted to sell only individual policies. For property and casualty insurers, the most severe limitation is that they are restricted to writing insurance only for foreign companies operating in China. The domestic Chinese market is closed to them, and they are only permitted to insure risks actually located in the city for which they are licensed, currently limited to Shanghai.

* * * * * * *.[71] [72] [73] [74]

In the insurance industry, most business is done through affiliate sales, rather than through cross-border trade. In 1996, insurance premiums collected by foreign-based affiliates, totaling $41.3 billion, were nearly 7 times greater than cross-border premiums collected by U.S. firms, totaling $6.0 billion. It is therefore essential to insurers that they are permitted to establish affiliates in China, in a wide variety of geographic locations inside the country.

Assessment of the April 1999 Offer

The Chinese Government's April 1999 offer on insurance includes * * *.[75] The great majority of the insurance industry representatives interviewed for this report were extremely pleased with the offer, and industry groups are actively lobbying for its acceptance. The exception is the insurance brokers' industry, which is disappointed with current developments in China and skeptical that the April 1999 offer would resolve its concerns.[76] * * *.

Although China's April 1999 offer holds out the promise of a more transparent licensing process, the rigid requirements that foreign companies must meet to qualify for licensing * * *.[77]

Effects of Market Openings[78]

Industry representatives expect * * * market opportunities, leading to * * * sales, should the April 1999 offer go into effect. In particular, they cite the ability to offer a wider range of product lines and the removal of geographic limitations as particularly important to the expansion of their business in China. * * *. Second, it provides for incremental market access in specific cities on fixed dates, allowing for less risky business planning. Several industry representatives commented on the offer's probable effects on their business.[79] One noted that if China

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[69] Industry representative, telephone interview with USITC staff, June 29, 1999.

[70] Industry representatives, telephone interviews with USITC staff, June 21-22, 1999.

[71] * * *.

[72] Industry representative, faxed response to USITC staff questions, Feb. 8, 1999.

[73] "China suspends Sedgwick for three months," *Financial Times*, May 14, 1999, found at Internet address http://today.newscast.com/, retrieved June 23, 1999.

[74] Industry representatives, response to questions from USITC staff, June 23, 1999.

[75] Media reports have suggested that China may be reconsidering its April 1999 offer. One recent report suggested that China might allow foreign insurance companies to hold only 48 percent or 50 percent of joint venture companies, not the 51 percent that is stated in the April 1999 offer. See "China may renege on WTO offer," *Reactions*, June 1999, p. 10 and "WTO bid in doubt as China shrinks from concessions," *Financial Times*, May 7, 1999, found at Internet address http://today.newscast.com/, retrieved June 23, 1999.

[76] Industry representatives, telephone interviews with USITC staff, June 17-22, 1999.

[77] Statutory insurance is insurance that is required by law.

[78] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all insurance industry and association representatives contacted in connection with this investigation. No estimates were received.

[79] Industry representatives, telephone interviews with USITC staff, June 17-22, 1999.

Table 5-9
Insurance services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
1	Insurance services covered by the November 1997 offer: life insurance for foreigners and individual Chinese citizens, non-life insurance for foreign companies, reinsurance related to the above, and auxiliary insurance services, excluding brokerage and agency services.	* * * * * * *. * * * * * * *.	The greater range of services covered by the schedule would likely lead to increased sales and investment by U.S. insurance firms.
2	Foreign insurers are limited to operations in Shanghai and Guangzhou. These experimental areas would be gradually expanded to some other open coastal cities.	* * * * * * *. * * * * * * *.	Increased sales by U.S. insurance firms are likely.
3	Foreign companies are licensed individually, in a non-transparent process. Personal contacts, support of the home country government, and “demonstrated commitment to the Chinese market” in the form of contributions to the Chinese economy are reportedly deciding factors in obtaining a license.	* * * * * * *. * * * * * * *.	Increased investment in China, resulting in greater sales, are likely.
4	Life insurance companies have been licensed only to form 50-50 joint ventures with Chinese firms. Non-life companies have been licensed as branches. Foreign insurance companies are licensed as either life or non-life companies, but may not write both types of insurance. During the experimental period, only branches of foreign insurance companies and joint ventures are permitted. Within two years after WTO accession, subsidiaries of foreign insurance companies will be permitted, after the revision of relevant laws.	* * * * * * *. * * * * * * *.	Increased investment by U.S. companies is likely, once they are permitted majority ownership.

Table 5-9—*Continued*
Insurance services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
5	Foreign property/casualty insurers may only do business with foreign companies operating in China, not Chinese businesses or individuals. Contrary to recent practice, industry representatives report new Chinese Government regulations stating that new policies are to be issued only with insurance companies or branches located in the city where the risk is domiciled. A single "master policy" covering multiple locations is not permitted, and fronting arrangements[1] are prohibited.	* * * * * * *. * * * * * * *.	Increased sales by U.S. insurance firms are likely. The April 1999 offer does not address fronting arrangements.
6	Foreign life insurers may not engage in group insurance sales to Chinese citizens, which form over 60 percent of the market, or in sales of pension products.	* * * * * * *. * * * * * * *.	Increased sales by U.S. insurance firms are likely.
7	Foreign insurers may not engage in the statutory insurance business.	* * * * * * *. * * * * * * *.	No anticipated effect on sales and investment.
8	To obtain a license, foreign insurance companies must meet the following requirements: (1) be established for more than 30 years; (2) have a representative office in China for over 2 years; (3) have total assets of more than $5 billion at the end of the year prior to license application.	* * * * * * *. * * * * * * *.	No anticipated effect on sales and investment.

Table 5-9—*Continued*
Insurance services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
9	Foreign reinsurance companies are not permitted to open branches in China, or to do business in local currency. They are permitted to do limited business in China through cross-border supply. Representative offices of foreign insurance companies are not permitted to place reinsurance into the international insurance markets.	* * * * * * *. * * * * * * *.	Increased sales by U.S. reinsurers are likely, although most reinsurance is conducted on a cross-border basis.
10	As of April 1999 there was one foreign insurance broker licensed to operate in China, with offices in Beijing. According to industry representatives, as of March 10, 1999, the China Insurance Regulatory Commission (CIRC) has reinterpreted existing Chinese rules to impose severe new limits on insurance brokers operating in China. The practical effect of the new rules is that all buyers of insurance must deal directly with local insurance companies, eliminating the function of an insurance broker, and limiting foreign insurance brokers in China to consulting and arranging reinsurance deals.	* * * * * * *. * * * * * * *.	Sales by U.S. insurance brokers would likely increase, limited by the number of licenses approved, and the definition of insurance brokerage services employed by CIRC. Under CIRC's current definition, sales of insurance brokerage services would remain very small even if the April 1999 offer becomes operative.
11	Foreign insurers with licenses must submit applications for approval of all new insurance products to the government. Approval generally takes 3-6 months.	* * * * * * *.	Uncertain
12	Both foreign and Chinese insurers are limited to investing in bank deposits and Chinese Government bonds.	* * * * * * *.	Uncertain

Table 5-9-*Continued*
Insurance services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
13	Foreign investment in Chinese insurance companies is limited to a maximum of 5 percent for each foreign company, to a total foreign investment of 25 percent in each Chinese company.	* * * * * * *.	Uncertain

[1] In a fronting arrangement, an insurance company licensed to do business in a given area issues an insurance policy, then immediately places 100 percent of the risk with another insurance company, either a reinsurance company or a primary carrier not licensed to do business in the area.

Source: Compiled by USITC staff.

achieves Thailand's per capita level of insurance sales, it would be the world's sixth largest insurance market, and if it reaches Taiwan's per capita level, China would become the world's largest insurance market. A representative of New York Life Insurance Company stated in testimony before Congress that if his company were to capture just one percent of the potential market in China, it could more than double its existing customer base. * * *.[80] [81] [82]

Telecommunication Services

China's telecommunication services market is largely closed to foreign competitors. China's 1995 Provisional Regulations for Guiding the Direction of Foreign Investment prohibits foreign management of posts and telecommunications businesses.[83] Further, U.S. industry representatives report that foreign companies are barred from owning and operating any telecommunication service companies.[84] Trade in telecommunication services between the United States and China primarily involves cross-border transactions. U.S. exports of telecommunication services to China totaled $210 million in 1997, whereas imports from China totaled $385 million, resulting in a $175 million deficit. In recent years, U.S. sales of telecommunication services through affiliates have exceeded cross-border exports overall, but this seems unlikely with respect to U.S. trade with China.[85]

Affiliate trade in telecommunications has been virtually limited to Chinese-Chinese-Foreign (CCF) arrangements. The CCF arrangement entails a joint venture between a foreign company and a Chinese partner, the latter of which in turn sets up another joint venture with China Unicom, a secondary telecommunication company created in 1993 to channel foreign investment into the industry.[86] * * *.

Assessment of the April 1999 Offer

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* * * * * * *.[87] [88] [89] [90]
* * * * * * *.[91]
* * * * * * *.

Effects of Market Openings[92]

Implementation of the April 1999 offer would progressively increase access to the telecommunication services market in China for foreign providers, and liberalize foreign investment. If the offer is implemented, foreign firms would be able to exercise a significant degree of control over their Chinese subsidiaries providing basic and value-added telecommunication services. U.S. industry representatives indicate that they are generally supportive of the April 1999 offer by China, and of any other initiatives that would open the Chinese telecommunication market to U.S. service providers. * * *.[93]

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[80] Industry representative, New York Life Insurance Company, "Statement for the Record," House Committee on Ways and Means, Subcommittee on Trade, June 8, 1999.

[81] Industry representatives, telephone interviews with USITC staff, June 17-22, 1999.

[82] Industry representative, telephone interview with USITC staff, June 21, 1999.

[83] See Daniel H. Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace* (Washington, DC: Institute for International Economics, Jan. 1999), Appendix A, p. 277.

[84] See letter from Albert M. Lewis, AT&T Director and Senior Attorney, Federal Government Affairs, in Trade Policy Staff, *U.S. Positions in Negotiations on the People's Republic of China's Accession to the World Trade Organization*, Public Comments, Mar. 14, 1997; and industry representatives, telephone interviews by USITC staff, Feb. 4 and Mar. 3, 1999.

[85] Total U.S. cross-border exports of telecommunication services totaled $3.3 billion in 1996, whereas sales of telecommunication and related services through overseas affiliates totaled $6.2 billion. USDOC, BEA, *Survey of Current Business*, Oct. 1998, pp. 104 and 105.

[86] Andrew Bailes and Andrew White, "Asia-Pacific Telecoms Markets," *Financial Times Media and Telecoms*, 1997, p. 58.

[87] Value-added services include computer processing, electronic mail, electronic data interchange, electronic funds transfer, enhanced facsimile, and on-line database access. USITC, *Recent Trends in U.S. Services Trade, 1998 Annual Report*, May 1998, p. 3-70.

[88] Packet-switched services entail dividing data messages in discrete units called packets, which are then routed individually over telecommunication networks. Packet-switching allows multiple simultaneous use of the circuit. Circuit switching establishes an end-to-end circuit for the duration of interactive data transmissions, prohibiting use of the circuit for other purposes until the connection is closed. Harry Newton, *Newton's Telecom Dictionary, 11th ed.* (New York: Flatiron Publishing, 1996), p.129.

[89] Closed user group is a group of specified users of a network facility that permits them to communicate with each other but precludes communication with other users of the service. Ibid., p. 236.

[90] United States Trade Representative, "Market Access Commitments of the Government of China on Goods, Services, and Agriculture," press release, Apr. 8, 1999, found at Internet address http://www.ustr.gov/, retrieved June 22, 1999.

[91] Ibid.

[92] Commission staff requested quantitative estimates of the effects of implementing the April 1999 offer from all telecommunication services industry and association representatives contacted in connection with this investigation. No estimates were received.

[93] Industry representative, telephone interview by USITC staff, June 22, 1999.

Table 5-10
Telecommunication services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
1	Basic telecommunication services		
2	China's 1995 Provisional Regulations for Guiding the Direction of Foreign Investment prohibited foreign investment in the management of basic telecommunication businesses. Under the November 1997 offer, limitations on the cross-border provision of services are unbound. Limitations on the provision of services through a commercial presence are unbound except that foreign service suppliers may set up joint venture enterprises with Chinese business partners to engage in the construction of telecommunication networks. After completion of the construction, the networks are transferred to a licensed Chinese enterprise for operation and management. Joint venture enterprises cannot engage in the daily operation and management of the networks. However, the joint venture and its foreign investors may share profits from the networks through relevant arrangements.	* * * * * * *. * * * * * * *.	Direct investment and sales through China-based affiliates would likely increase.
3	The Chinese-Chinese-Foreign (CCF) arrangement enabled foreign partners to collect management and consultancy fees. An existing ban on foreign investment indicates that new CCF arrangements may be prohibited.	* * * * * * *. * * * * * * *.	Direct investment and sales through China-based affiliates would likely increase.
4	No information.	* * * * * * *. * * * * * * *.	Direct investment and sales through China-based affiliates would likely increase.
5	No information.	* * * * * * *. * * * * * * *.	Direct investment and sales through China-based affiliates would likely increase.

Table 5-10-*Continued*
Telecommunication services: Assessment of the Chinese offer of April 1999

	Current non-tariff barriers	April 1999 offer	Effects of April 1999 offer on trade and investment
6	Value-added telecommunication services		
7	China's 1995 Provisional Regulations for Guiding the Direction of Foreign Investment prohibited foreign investment in the management of basic telecommunication businesses. Under the November 1997 offer, foreign service suppliers are allowed to form one joint venture each in Shanghai and Guangzhou within 2 years of China's accession to the WTO. Foreign equity is limited to 25 percent. The geographic area and number of permitted ventures will be expanded within 5 years. The scope of China's November 1997 offer on value-added services was limited to electronic data interchange, code and protocol conversion, and on-line information and data processing. China offered to broaden the scope of joint ventures within 5 years of WTO accession.	* * * * * * *. * * * * * * *.	Direct investment and sales through China-based affiliates would likely increase.
8	The Chinese-Chinese-Foreign (CCF) arrangement enables foreign partners to collect management and consultancy fees. An existing ban on foreign investment indicates that new CCF arrangements may be prohibited.	* * * * * * *. * * * * * * *.	Direct investment and sales through China-based affiliates would likely increase.
9	Foreign service suppliers can provide cross-border services by signing business contracts with the Ministry of Post and Telecommunications which arranges the circuit and the designated gateway.	* * * * * * *. * * * * * * *.	Cross-border sales to China would likely increase.

Source: Compiled by USITC staff.

CHAPTER 6
Effects Of WTO Accession On China

Introduction

This chapter addresses USTR's request to "...estimate and/or discuss the effects of accession on China's rate and pattern of trade, economic growth, and internal economic reform." The estimates of the effects of the April 1999 tariff offer on China's trade and economic growth are derived by employing the China-WTO model. The discussion of the effects of WTO accession on China's internal economic reforms draws on available literature on China's internal political economy as well as written submissions and comments made at the public hearing in connection with this investigation.

China's Growth and Trade Patterns

Quantitative estimates of the impacts of China's WTO accession rely heavily on China's existing trade patterns.[1] An understanding of China's trade pattern formation is important for explaining economic effects of its trade liberalization. As is reported in chapter 2, China has undergone phenomenal change in recent years both in terms of GDP growth and changing trade patterns. In addition to trade policy change, growth from investment and technological change have played a major role in China's changing trade patterns. Whether China joins the WTO or not, its growth and future trade patterns will continue to evolve as a result of these economic forces.

Two major economic forces help explain China's evolving trade pattern. First, an ongoing relocation of entire industries is occurring among East Asian economies. Industries most affected are those having a high labor-input requirement in the manufacturing process.[2] Production is moving from higher-wage countries such as Japan, Taiwan, and Korea to more labor-abundant countries like China. The relocation of these industries to China explains its rapid export growth in labor-intensive manufactures. Goods of this type which the United States previously imported from Taiwan and Korea are now being imported largely from China.

The second major economic force that helps explain China's evolving trade pattern is its more recent participation in multi-stage production arrangements with neighboring East Asian countries. Rather than completely relocating an industry, countries specialize in various stages of a manufacturing process. This has given rise to increased trade in intermediate inputs where trade growth exceeds income growth. Japan exports capital—and technology-intensive equipment for building infrastructure in China, while Taiwan and Korea supply other high-technology components to China. China, with its low labor costs, adds value in the process by providing labor in the assembly of finished machinery and high technology equipment. Finally, Hong Kong provides international marketing services. This type of specialization in manufacturing partially explains the rapid growth in China's imports and exports of machinery and equipment. These types of economic activities have contributed to China's trade pattern formation.[3] Trade flows that emerge from these activities have important implications for future trade liberalization by China.

Rapid growth has taken place in China's exports of light manufactures including footwear, toys, electronics, and sporting goods. The United States is a major destination of these finished consumer goods. Also significant is that China's rapid trade growth with other East Asian countries in sectors such as electrical machinery and equipment.

[1] These industries include wearing apparel, footwear, and other manufactures such as toys and sporting goods where substitution between labor and capital is limited under existing technology.

[2] Data used in the China-WTO model contain sector-level bilateral flows between China and all regions in the world.

[3] Although China's trade statistics may give an impression that China's comparative advantage is shifting to capital and technology-intensive manufacturing, in reality China continues to rely heavily on imported capital goods and technology.

Another important factor in explaining China's trade pattern is its stage of economic development. Despite China's rapid growth in recent years, it has relatively low per capita income and income distribution is still highly skewed. Typically, as countries grow and develop, there is an income shift towards middle income households. With this income distribution shift, there is a corresponding change in the import composition towards more consumer-oriented goods and services[4]. But because China's middle class is still relatively small, China has not yet emerged as a major market for consumer-related goods. Based on existing trade patterns, the impact on the imports of consumer-type goods is not likely to be significantly affected by WTO accession. However, future growth and development will likely affect China's composition of trade. This analysis is beyond the scope of comparative static modeling.

The comparative static analysis performed here involves estimating effects from China reducing its tariffs, per the April 1999 offer, in the absence of factors that cause growth. It measures impacts that stem from price effects induced by trade liberalization as opposed to growth effects that are not induced by trade liberalization, such as an increase in labor and capital accumulation. In this context, China's past and expected future rates of growth are not relevant for estimating effects from trade liberalization. Of importance are the adjustments that would occur as a result of China's tariff cuts. In a real world context, how China's economy and trade are affected will depend on the magnitude of price change due to the reduction in tariffs and the relative size of affected sectors in China's economy. To the extent China has already made tariff reductions prior to WTO accession, the impact on China's economy is determined accordingly from additional tariff cuts.

Comparative Static Analysis of China's Economy

This comparative static analysis addresses the question of how China's economy in its current state would have differed had China reduced tariffs as proposed in the April 1999 offer, holding other policies constant, including domestic reforms. As is discussed in chapter 1, comparative static analysis can provide both static effects holding economy-wide factors constant as well as the full effects of trade liberalization, including policy-induced growth effects.

China's tariff reductions for WTO accession present a case where only one country reduces its trade barriers, as opposed to a situation of a multilateral or regional trade agreement, which involves multiple impacts stemming from many countries simultaneously liberalizing their trade. For the China analysis, the impact of liberalization can be fairly easily traced through various markets. First, as import duties are reduced in China, the initial response is for importing firms in China to substitute away from higher-cost domestic goods in favor of cheaper foreign-produced goods. As protected industries face greater foreign competition their profits are reduced, thus the initial impact of a tariff reduction is borne by more highly protected industries. China's imports from the world would be expected to increase as a result of the tariff cuts. At the same time, less protected industries and those which rely more on imported goods become more profitable as less tax is paid on imported goods. Those industries whose profitability is enhanced expand as they are able to attract workers by offering relatively higher wages.

The effect on China's exports is more ambiguous, depending largely on industry trade orientation in China. If expanding industries are export-oriented, then China's exports would have a stronger tendency to increase; alternatively, if expanding industries are domestically oriented in their sales then exports are not expected to increase as a result of trade liberalization.[5] In either case, labor and capital in China move from more highly protected industries to less protected industries. Greater efficiency can be achieved through this reallocation as factors of production move from less-productive activities to more-productive activities. Economic gains associated with reallocation are called *static allocative efficiency* gains as there is no change in the size of the labor force or stock of capital in the economy.

Besides static gains, there can be secondary effects as a result of trade liberalization. These are called growth effects. Economy-wide efficiency gains result in additional income and savings in the economy. This increase in capital stock leads to greater domestic investment which in turn adds to an economy's capital stock. This leads to an overall increase in productive capacity of the liberalizing country, a result not captured by static gains. In addition to increases in the

[4] Growth in imports of higher value food and beverages is one example reflecting structural shifts arising from a growing middle income class.

[5] This information is explicit in China's national input-output table which is an integral part of the database in the model.

capital stock, total factor productivity (TFP) can be enhanced as a result of trade liberalization.[6] In the China-WTO model, the primary mechanism driving TFP growth is new technology embodied in imports of intermediate capital goods. Productivity growth is then a function of technology transfer.

These growth effects (i.e., increase in capital stock and TFP) come about solely from adjustments caused by policy change.[7] A comparative static analysis accounts for policy-induced growth effects, in that it is a comparison of an economic state with a policy change and one without the policy change, holding all other factors constant. The question asked by the comparative static analysis is that, if China had cut tariffs per the April 1999 offer, how would its level of capital and productivity growth likely be different from what it is today. Accounting for growth effects in a comparative static framework means that adjustments from endowment growth are taken into consideration. Hence, including growth effects represents a more complete impact of the policy induced changes in the Chinese economy. Ignoring these growth effects may bias the estimated impact.[8]

Results for China's April 1999 Tariff Offer

The China-WTO model is employed to estimate the impact of tariff reductions offered by the Chinese government in the April 1999 bilateral negotiations. This tariff offer consists of a wide range of cuts across different sectors which vary by partner. This is because the tariff cuts are not uniform within each sector and the composition of trade within each sector varies by partner. The China-WTO model is employed to run two simulations. The first simulation estimates only the static gains from allocative efficiency, while the second simulation estimates the growth effects beyond the static effects**.** These simulations do not include the direct effect of liberalization of trade in services. Nor do the simulations include the impact of the removal of NTBs in the Chinese economy as necessary data (as indicated in chapter 1) on tariff equivalents applicable to these trade barriers per the April 1999 offer are not available. As discussed in Chapter 5, NTBs have significant impact in restricting trade in the service industry in China where tariffs are relatively inconsequential. Therefore, the overall effects of China's accession are understated.

Table 6-1 provides model results for the April 1999 tariff offer for the base year 1998 on China's total trade, accounting for both static effects and growth effects separately. Without accounting for the growth effects, China's real GDP would increase by about 1 percent. In contrast, if the growth effects from trade liberalization are accounted for, China's GDP would increase by 4 percent. This implies that the growth effects account for most of China's economic expansion associated with liberalizing its trade. Without these growth effects welfare would decline despite the increase in GDP, because China experiences a negative shift in its terms of trade. As international prices adjust, China must pay relatively more for its imports than it receives for exports which then lessens consumption in China. Consumption (welfare) does not decline when growth effects are considered, because incomes in China are enhanced, thus offsetting the effect from unfavorable terms of trade changes. The interpretation of the scenario with growth effects could be understood as a longer run adjustment (as indicated above) whereas their exclusion reflects more of a short term adjustment.

For growth to take place from liberalization, China must increase its trade with the world. The static effects indicate that its total exports to the world would increase by about 10 percent, while its imports would likely increase by about 12 percent as import liberalization takes place. In contrast, when growth effects are taken into account, China's total exports increase by about 12 percent and its total imports increase by about 14 percent. This suggests that the growth effects arising from China's proposed tariff reductions will enhance China's competitiveness in world trade but increase it reliance on imported goods.

Changes in output by sector provide a fuller understanding of the structural changes that would likely occur from China's liberalization (table 6-2). Among primary agricultural sectors, oilseeds would experience the largest decline in China. This comes mainly as a result of reducing protection in vegetable oils and subsequent increase in imports. The growth effects play a role in determining whether certain agricultural sectors such as rice, other grain (principally corn), and wool, experience expansion or

[6] Institute of Developing Economies, "Special Issue: Trade Liberalization and Productivity Growth in Asia," vol. XXXII, No. 4, December 1994.

[7] These policy-induced effects are distinct from capital accumulation, productivity growth, and labor and human capital growth that would occur regardless of trade liberalization. Such determinants of growth are accounted for in a multi-period growth model employed in chapter 8 to assess the impact of the ATC quota phase out for textiles and apparel products over the 2000-10 period.

[8] Accounting for growth effects could introduce other types of biases such as an exact productivity response. In addition, the adjustment period required for growth effects to fully materialize is not known.

Table 6-1
Impact of April 1999 tariff offer on China's economy
(Percentage change)

Item	Static effects	Static plus growth effects[1]
GDP	0.9	4.1
Welfare	-0.3	2.1
Terms of trade	-2.1	-1.8
Total Exports	10.1	12.2
Total Imports	11.9	14.3

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.

Source: USITC staff estimates for base year 1998.

Table 6-2
Impact of April 1999 tariff offer on China's sector output[1]
(Percentage change)

Sector	Static effect	Static plus growth effects[2]
Wheat	***	***
Rice	***	***
Other grain	***	***
Oilseeds	***	***
Sugar	***	***
Plant Fiber	***	***
Vegetable oils	***	***
Wool	***	***
Beverages and tobacco	***	***
Textiles	***	***
Wearing apparel	***	***
Footwear and leather	***	***
Wood products	***	***
Paper and pulp	***	***
Petroleum products	***	***
Chemicals, rubber and plastics	***	***
Mineral products	***	***
Iron and steel	***	***
Other metals	***	***
Metal products	***	***
Motor vehicles and parts	***	***
Other transport equipment	***	***
Electronic equipment	***	***
Other machinery and equipment	***	***
Other manufactures	***	***

[1] These estimates do not include the effects of liberalization of trade in services or the removal of non-tariff barriers. Therefore, overall effects of China's accession are understated.
[2] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.

Source: USITC staff estimates for base year 1998.

contraction. For example, as incomes increase due to growth effects, demand increases for rice and other grain (substitutes for wheat which faces a bound rate of * * * percent, despite a cut in the MFN rate by * * * percent as shown in table 1-1), leading to an increase in output for these sectors. In the case of wheat, with reduced protection imports increase with concomitant continued contraction of this sector in the growth case, though at a declining rate. This is so because output in the wheat sector increases due to greater availability of capital in the dynamic effects analysis.

Among industrial sectors, wearing apparel, footwear and other light manufactures output increases substantially for both the static and growth analysis. Similarly, expansion also occurs in electronic equipment, and other machinery and equipment. This comes at the expense of a contraction in * * *.

The potential effect of the April 1999 tariff offer on China's trade by trading partner is shown in table 6-3. The first column reports how the resulting increase in exports is distributed among trading partners under static effects, and the second column reports the distribution of additional exports under static plus growth effects. The third and fourth columns report similar results for imports. For example, under the static effects, 21 percent of additional Chinese exports is distributed to the United States, while only 6 percent of additional Chinese imports will be supplied by the United States. Japan, on the other hand would supply nearly 25 percent of China's additional imports. Other large suppliers are Taiwan (20 percent), the EU (17 percent), and Korea (13.3 percent). Accounting for growth effects will slightly increase the trade shares for the United States. The United States has the largest discrepancy in terms of the share as supplier (6 percent) versus a destination (21 percent) of Chinese goods. This has implications for how the U.S. trade with China is affected by China's tariff reductions, as discussed in chapter 7.

The results suggest that China's capacity to export would depend more on additional capital generated by trade liberalization (growth effect of liberalization) than on sectoral reallocation of capital as captured in the purely static results. The growth effects are less directly important to increasing China's imports, except as these imports are needed to support export industries. Much of the import growth is driven by changes in relative prices which induce substitution between domestically produced goods and foreign goods. The analysis suggests that without growth effects, China's surplus would most likely fall as its

Table 6-3
Distribution of China's trade by partner resulting from April 1999 tariff offer[1]

	Exports		Imports	
Partner	**Static effects % of total exports**	**Static plus growth effects[2] % of total exports**	**Static effects % of total imports**	**Static plus growth effects[2] % of total imports**
United States	20.7	21.2	6.2	7.1
Canada	2.0	2.0	0.8	0.9
Mexico	0.4	0.4	0.0	0.0
EU	21.3	21.8	16.7	17.7
Japan	20.8	19.7	24.8	23.0
Other OECD	4.2	4.1	1.0	1.3
Korea	3.2	3.2	13.3	12.1
Taiwan	2.6	2.7	20.3	19.2
Hong Kong	4.9	5.0	8.4	9.1
ASEAN	4.9	5.1	4.4	4.6
South Asia	1.8	1.9	-0.2	0.0
Rest of World	13.3	13.0	4.3	5.1
World	100.0	100.0	100.0	100.0

[1] These estimates do not include the effects of liberalization of trade in services or the removal of non-tariff barriers. Therefore, overall effects of China's accession are understated.
[2] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.

Source: USITC staff estimates for base year 1998. These estimates reflect fixed exchange rates.

growth would be much lower (0.9 percent in the static case rather than 4 percent in the growth case, table 6-1) with concomitant lower growth for its exports, but higher growth of imports as mentioned above.

Effects of WTO Accession on China's Internal Economic Reforms

The first part of this chapter relied on formal quantitative modeling of tariff cuts to assess the possible impact of Chinese accession to the WTO on China's future patterns of trade and economic growth. This section seeks to analyze the possible impact of WTO accession on the future course of China's economic reforms. Processes of reform and policy change are inherently complex, and their analysis involves both political and economic considerations. These processes are not as amenable to formal quantitative modeling as are economic growth and international trade; thus, the following analysis is undertaken on a descriptive basis. For general background on the historical development and current situation of China's economic reforms, see Appendix F.

Effects of Trade and Investment Reform on Reforms of Other Policies[9]

The process of economic reform is complex, and not particularly well understood. A country's decision to adopt economic reforms in a single area (e.g., opening its economy to the outside world, controlling price inflation, strengthening property rights, or reducing business regulation) may create constituencies for reform in other areas, or reduce the viability of policies and institutions which had been relatively stable under a more economically repressed policy regime. The following discussion of general principles regarding the relationship between trade and investment liberalization and the progress of other types of reform applies also to the Chinese context in particular.

In many countries, trade and foreign investment liberalization are "first generation" reforms, and are often easier to achieve than other objectives such as judicial reform, regulatory reform, large-scale privatization, reform of labor markets and reform of central-local government relationships. Thus, it is reasonable to expect that certain aspects of China's economic reform process that are important to U.S. interests will take longer to achieve than trade and investment liberalization per se.[10]

The political benefits of trade liberalization to an incumbent regime arise from improved economic efficiency and economic growth, while its political costs come from redistributing income from protected "losers" to export-oriented "winners." The political costs of trade liberalization are larger when the economy is relatively dependent on trade and when its rate of economic growth is low, since in both cases the redistributive effects of trade liberalization are felt more sharply. China, with a relatively large economy, is not as dependent on trade as some other smaller economies, and China has enjoyed very rapid economic growth in recent years. These features of China's economy make it politically easier to sustain trade and investment liberalization.

Opposition to trade liberalization is particularly strong among formerly protected industries and holders of import quotas. In China, this category of firms includes many inefficient state-owned enterprises. * * *. State-owned enterprises in 1997 employed over 110 million urban workers, including 30 million manufacturing workers, an increase of 40 million total workers in state-owned enterprises since 1978.

Because the workers and managers of state-owned enterprises benefit in general from policies that permit state-owned enterprises to maintain losses, the removal of trade-related benefits for these firms, such as protection from foreign competition or privileged access to imports, may intensify efforts by the constituents of state-owned enterprises to cling to the remaining privileges of these firms, providing further resistance to reform. Alternately, trade liberalization could, by increasing unsustainable losses of formerly protected state-owned enterprises, increase pressure on the Chinese government to undergo more radical reforms sooner than would otherwise be the case.

Table 6-4 illustrates the relationship among trade liberalization, foreign investment liberalization, and selected other areas of economic policy.[11] Countries

[9] For general background on this topic, see *World Development Report 1997: The State in a Changing World* (Oxford: Oxford University Press for the World Bank, 1997), particularly chapter 9.

[10] For example, see the remarks of Jerome Cohen at a conference on "China's Accession to the World Trade Organization: Implications for the United States, Japan and the World," Columbia University, New York, New York, April 9, 1999.

[11] The table was derived by USITC staff from Bryan T. Johnson, Kim R. Holmes and Melanie Kirkpatrick, *1998 Index of Economic Freedom* (Washington and New York:

Table 6-4
Correlation of trade and FDI liberalization with other economic freedoms

Trade liberalization			Average score for economic freedoms in 156 countries (1 = most free, 5 = least free)				
Score	**Level of protectionism**	**Number of countries**	**Foreign investment**	**Banking**	**Wages and prices**	**Property rights**	**Regulation**
1	Very low	5	1.60	2.20	2.20	2.00	2.00
2	Low	42	2.21	2.36	2.29	1.69	2.71
3	Moderate	30	2.60	2.77	2.67	2.90	3.30
4	High	25	2.84	2.96	3.08	2.96	3.44
5	Very high	54	3.44	3.80	3.37	3.69	3.94
China's score in 1998			3	3	4	4	5

Foreign investment

Score	**Barriers to foreign investment**	**Number of countries**	**Trade**	**Banking**	**Wages and prices**	**Property rights**	**Regulation**
1	Very low	6	2.00	2.00	2.00	1.83	2.00
2	Low	64	2.89	2.45	2.38	2.16	2.97
3	Moderate	49	3.73	3.04	2.88	3.00	3.43
4	High	30	4.47	3.97	3.60	3.67	4.00
5	Very high	7	5.00	5.00	4.71	5.00	4.57
China's score in 1998			5	3	4	4	5

Source: Derived by USITC staff from Bryan T. Johnson, Kim R. Holmes and Melanie Kirkpatrick, 1998 *Index of Economic Freedom* (Washington, D.C. and New York: The Heritage Foundation and the Wall Street Journal, 1998.)

that liberalize trade tend in general to have more open banking systems, more flexible wages and prices, stronger property rights, and more liberal schemes of economic regulation in general. The same is true for countries that liberalize foreign direct investment. These associations as measured do not by themselves answer the question of whether general economic reform is a consequence or a cause of trade liberalization in most countries. The results do suggest that trade and investment liberalization are more likely to take place simultaneously with other forms of liberalization and reform than in the absence of general economic reform.[12] Using the Johnson/Holmes/Kirkpatrick index in table 6-4, China's current trade policies are relatively illiberal by international standards, and its investment policies are only moderately liberal. Thus, a WTO accession agreement which substantially liberalizes trade and investment policy could create significant opportunities for linkages to liberalization in other areas.

Effects of WTO Accession on Relations between China's Central Government and Provinces

As discussed in chapter 2, China maintains a unitary national government which, in theory, directly controls activity in the provincial and local governments. In practice, however, enforcement and interpretation of central government edicts varies markedly from province to province, often in unpredictable ways. In order to comply with basic WTO obligations, China would need to ensure consistent treatment of non-Chinese enterprises in all jurisdictions, with respect to a wide variety of policies.

In his testimony before the Commission, U.S.-China Business Council President Robert A. Kapp remarked:

> *The authoritative relationship and the power relationship between the central government and the lower . . . levels of Chinese government is very complicated. And there are times when provinces go their own way.*
>
> *On the day before Deputy Secretary of Treasury Summers met with Zhu Rongji, the premier, in Beijing eight or ten months ago ... to discuss the stabilization — the maintaining of the value of the renminbi, Zhu was down in Canton, in Guangzhou, in the southeast, raising Cain with — with provincial and local officials down there and saying, "You guys have got to obey the — the directives and the orders from the central government in your economic behavior, or we're going to fire you."*
>
> *And so here he was negotiating with the most powerful economy of the world on something of significance to the entire world's economic stability one day. The next day, he was down, telling the provincials that they had to stop this — had to stop ignoring Beijing.*[13]

If China joined the WTO, then actions by the provinces that were inconsistent with WTO obligations would be more than just domestic political problems– they would be cause for China's trading partners to take it to dispute settlement. Because China could well find itself defending multiple WTO disputes simultaneously, it may be willing to spend less political capital on disputes which could be more easily resolved by exerting greater authority over provincial and local governments. In turn, foreign businesses prefer uniformity of policies across China, for the sake of predictability and convenience. Being able to ensure uniformity of such policies through the WTO would involve changing the balance of the relationship between the center and provinces, generating some immediate benefits for business.

If China's WTO accession leads to a more uniform policy regime in China's regions, this could in turn promote political stability in China. The current economic successes enjoyed by those coastal provinces which have experienced the most liberalized expansion of foreigners' economic activity has provoked resentment and cultural backlash among inland provinces, at the same time making the inland provinces "me-too" advocates of further reform.[14]

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[11]—*Continued*
The Heritage Foundation and the *Wall Street Journal*, 1998). Besides the categories listed in the table, the report also analyzes taxation, government intervention (measured by the size of government and prevalence of state-owned enterprises), monetary policy, and the black market.

[12] According to the *Index of Economic Freedom* noted exceptions include, countries such as Uganda, Trinidad and Tobago and the Bahamas maintain certain features of a relatively liberal economy, such as strong property rights, wage and price flexibility, or liberal business regulation, while being very closed to international trade. Some of the transition economies, including Lithuania, Mongolia, Romania, and Armenia, have developed relatively liberal trade regimes while lagging in other areas of economic reform.

[13] Robert A. Kapp, testimony before the Commission, Feb. 23, 1999, transcript, pp. 54-55.

[14] Susan L. Shirk, *The Political Logic of Economic Reform in China* (Berkeley: University of California Press, 1993), pp. 49-50.

Improvements in access to internal distribution, advocated by U.S. firms but not directly linked to WTO accession, could, if achieved, help to break down current protectionist barriers among the provinces themselves,[15] further tipping the balance of political authority toward the center. Conversely, the current benefits enjoyed by foreign firms in special enterprise zones, and Chinese firms doing business with them, may create constituencies in China that might resist attempts to harmonize China's national treatment of foreigners in the name of WTO compliance.[16]

It is not immediately clear, however, that centralization of political and economic authority in China is unambiguously in the U.S. interest, or more likely to promote reform in the long run than the current system. Since 1979, China has begun to gradually transform its *de jure* unitary state into a *de facto* federalist system. Such *de facto* federalism permits regional experimentation, which is useful in identifying possible paths to reform when the optimal policies are initially unknown. Local governments control about three-quarters of state industrial firms, make important investment decisions in both manufacturing and infrastructure, and directly control the township-village enterprises at the heart of the household responsibility system.[17] The responsibility system itself, which was the cornerstone of the first-generation Chinese reforms, began as a local experiment in Fengyang County of Anhui Province in 1978, when the rest of the country was operating under the commune system. Innovations in business practices originally introduced in the special economic zones in China have diffused broadly in the country. Excessive standardization of provincial and local government practice in China could thus have a negative impact on reform.[18]

Under the current Chinese system, provincial and local governments control state-owned enterprises as well as does the central government, and must make decisions as to what degree of support and autonomy to give to state-owned, collective, and private enterprises.[19] In particular, the presence of state-owned enterprises under provincial and local control means that local governments are heavily involved in issues of product development, market research, technology acquisition, and the allocation of finance among enterprises. Independent interpretation of centralized policy edicts means that different provinces develop different articulations of the process of reform in a "socialist market economy." Differences in provincial policy regimes can provide a source for experimentation in the process of reform, so that neither good nor bad policy choices take place in all locations at once. Central policymakers can point to successful local experiments as policies to be emulated, as in the case of Deng's 1992 trip to the special enterprise zones in southern China. Indeed, the entire policy of special enterprise zones and locally limited experiments with a foreign presence in key industries suggests that a process of experimental competition among varying provincial policy regimes is in part a deliberate strategy of the central government, even though such competition also in part reflects incomplete central control.

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[15] These have included direct prohibitions by the interior provinces of "imports" of higher-quality coastal goods, hoarding of local raw materials for local processing, and attempts by local governments to collect rents from higher-priced color televisions "imported" from other regions of China. Ibid., pp. 185-186.

[16] In his testimony, Daniel H. Rosen stated that "most foreign investors in China benefit from privileged policies that exceed the most favorable terms ostensibly available to businesses foreign or domestic. Foreign incumbents, like indigenous Chinese ones, would presumably see these privileges leveled down as a WTO template of rules were projected onto the Chinese playing field. It's important for Western proponents of Chinese liberalization to contemplate the implications of this in gauging their commitment to pushing China's reform." Daniel H. Rosen, testimony before the Commission, Feb. 23, 1999, transcript, pp. 37-38.

[17] Yingyi Qian, "The Institutional Foundations of China's Market Transition," paper presented at the World Bank Annual Bank Conference on Development Economics, Washington, DC, April 28-30, 1999.

[18] In a longer historical perspective, the varying degree of Chinese central control over regions has been inversely related to economic dynamism and openness to foreign trade. Periods of particularly strong central authority, such as the later Ming and Qing dynasties, saw reversals in government policies of promoting technological advance and the use of central authority to prohibit foreign trade, to the extent of suddenly closing Chinese shipyards which had produced a fleet capable of successfully reaching Madagascar in the 15th century. By contrast, earlier periods such as the Tang and Song dynasties, which experienced frequent *coups d'état*, regicides, and civil conflicts among local princes, had as a consequence greater political "competition" and local autonomy, enjoyed more rapid technological advance, and experienced more regular commercial interactions with foreigners, particularly in the south of China. See Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (Oxford: Oxford University Press, 1990), ch. 9, and Angus Maddison, *Chinese Economic Performance in the Long Run* (Paris: OECD, 1998) .

[19] For a description of the "local corporatist state" in China, see Jean C. Oi, "The Role of the Local State," in Andrew G. Walder, ed., *China's Transitional Economy*, Oxford: Oxford University Press, 1996.

Effects of Trade Liberalization on China's State-Owned Enterprises

As chapter 2 reports, while China's economy has grown rapidly overall, state-owned enterprises have grown more slowly than enterprises under other forms of ownership, and their share of Chinese output has decreased over time. The state-owned enterprises have experienced mounting and unsustainable losses. These losses, combined with the fact that the state-owned enterprises retain a large number of workers and provide them with a variety of social benefits, create an increasingly urgent problem for Chinese policy.

An important source of the ongoing competitive pressure on state-owned enterprises is the opening of the Chinese economy. Non-state-owned enterprises tend to be more export intensive than state-owned enterprises, and increasing competition from both domestic and foreign sources has put pressure on profit margins in state-owned enterprises.[20] Furthermore, state-owned enterprises are as a group relatively capital-intensive compared to other forms of ownership. Further Chinese trade liberalization is likely to raise the returns to Chinese labor and reduce the returns to Chinese capital, as the Chinese economy adjusts more closely to its true comparative advantage. Such developments would place further stress on the financial position of state-owned enterprises, heightening pressures for reform. As noted earlier in this chapter, managers of state-owned enterprises which benefit from the current Chinese preferential policies towards such enterprises represent an important potential constituency opposing further trade liberalization.

The likely consequences of China's undergoing accelerated reform of state-owned enterprises include substantial dislocations of workers and contractions in some heavy industrial sectors in the short run, but with long-run benefits accruing due to increased efficiency of the remaining enterprises. Enhanced efficiency of state-owned enterprises exposed to competition may occur whether or not the enterprises are ultimately privatized.

In a recently released study,[21] Lee Branstetter and Robert Feenstra analyze the implicit preferences of the Chinese government by analyzing the effects of tariffs, trade, state-owned enterprises, and wages on the degree of penetration of multinational firms in different regions of China over 1984-1995. The estimates indicate that over this time period, the Chinese government has valued the production of state-owned enterprises from two to twelve times as much as the welfare of consumers. These results provide further evidence that China may have political difficulty in liberalizing its trade and investment regimes, such as under its WTO accession proposal.

Further evidence of the trends discussed in the above analysis is provided by the fact that since Prime Minister Zhu's visit to Washington in April 1999, both state-owned enterprises and Chinese provincial officials have expressed opposition to China's entry into the World Trade Organization, due to the negative effects of more open international competition concerning their interests. China's trade minister has acknowledged that such opposition exists, and the Chinese Government has conducted a series of meetings with senior officials and leaders of state enterprises to address their concerns.[22] Such admissions of internal dissent are unusual in China's political system. As an example of the current internal discussion in China, Xie Yutang, mayor of Jinan, capital of Shandong province, told the *Financial Times* that he opposed any rapid drop in customs tariffs associated with China's entry into the WTO, and favored a slow rather than a fast timetable for accession. He cited National Heavy Truck Corp., a large local employer, as an example of a firm which could fail under Chinese WTO entry.[23]

[20] Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform 1978-1993* (Cambridge: Cambridge University Press, 1995), pp. 233-234.

[21] Lee G. Branstetter and Robert E. Feenstra, "Trade and Foreign Direct Investment in China: A Political Economy Approach," *NBER Working Paper* No. 7100 (Cambridge, MA: National Bureau of Economic Research, April 1999).

[22] Seth Faison, "China Seeks to Win Over Dissenters on Joining Trade Group," *The New York Times*, June 8, 1999.

[23] James Kynge, "Chinese Mayor Lukewarm on Country's Entry to WTO," *Financial Times*, July 7, 1999.

CHAPTER 7
Effects on the U.S. Economy of Reducing China's Tariffs

Introduction

This chapter describes the likely effects of China's April 1999 tariff offer on the U.S. economy. It also provides estimates for alternative simulated tariff reductions of 25 percent and 50 percent. The estimates are based on a comparative static analysis where tariff reductions for agricultural and non-agricultural sectors are performed simultaneously using the single-period China-WTO model. The USTR also requested an estimation of the effects on the U.S. economy of the removal of China's non-tariff barriers. To the extent data were available, the China-WTO model was used to estimate the impact of the removal of selected non-tariff barriers beyond the 50 percent tariff cut scenario.

In general, if a U.S. trade partner reduces its tariffs, some U.S. sectors will be able to expand as a result of improved market access. However, the economy-wide gains can only be determined through an empirical investigation, analyzing actual tariff reductions in the other country—China, in this case—and the composition, size, and direction of trade. Because trade with China comprises less than 1 percent of U.S. gross domestic product, even substantial industry gains will appear small measured against the overall size of the U.S. economy and the total U.S. trade with the world.

As discussed previously, gains from liberalization consist of both static and growth effects. Static gains occur from reallocation of factors within an economy. In order for static efficiency gains to accrue, less-efficient sectors in the United States undergo some contraction in order to 'free-up' factors of production for expansion of more efficient sectors. However, since the United States is not required to liberalize its trade to induce such an adjustment, the U.S. economy is affected only by trade impacts stemming from the liberalizing country. More efficient unprotected U.S. sectors could face greater competition, while less efficient protected sectors may expand. This situation arises when the liberalizing country has a comparative advantage in sectors where the United States also has a comparative advantage. In that case, gains to the United States from increased trade are not likely to materialize.

Gains for the United States from increased trade are realized when the liberalizing country (here, China) specializes in the production of goods where the United States does not have a comparative advantage. Historically, for U.S.-China trade there has been complementarity where the United States has comparative advantage in different sectors than does China. This is in part due to the wide disparity in wages and relative capital intensity in production. Given this, increased trade will result in positive static economic gains for the U.S. economy as China liberalizes its trade. This comes about as factors of production in the United States are employed more efficiently.

Trade-related productivity, a growth effect, is not as important for the United States as it is for China (the liberalizing country) for several reasons. It is when an importing country acquires new technology from abroad that productivity is enhanced by trade. For the United States, new technology does not originate from goods imported from China. Rather, the United States is a primary producer of technology. Moreover, imports from China are mainly finished consumer goods that have no explicit link to U.S. production. Therefore, it is not expected that U.S. productivity growth will occur from China's trade liberalization. The growth effects occurring in China stimulate greater trade with United States, thereby further exploiting the comparative advantage between China and the United States beyond what the static effects provide.

As indicated in chapter 1, the model simulated several tariff reduction scenarios: estimates reflecting China's proposed tariff reductions as of April 1999, and two alternative scenarios that simulate across-the-board cuts of 25 percent and 50 percent from 1992 and 1997 tariff levels.

Agricultural tariff cuts are calculated as the difference between the current base rates[1] (applied rates) and the bound rates for the year 2004, the year all agricultural commodities are fully implemented in the WTO accession process. As discussed in chapter 4, China has adopted tariff rate quotas (TRQs) for certain commodities. Although some trade can occur under the informal quotas at a lower duty (the in-quota rate), the relevant initial base tariff for modeling the effects of tariff reduction[2] is the out-of- quota rate. * * *. All other tariffs on agricultural and non-agricultural goods where TRQs are non-applicable were calculated in a similar manner by taking the difference between the base and the bound rate in the period when full implementation takes place. The China-WTO model is used to simulate the effects of all agriculture and industrial sectors tariff reductions simultaneously, using comparative static analysis.

[1] The Department of Commerce supplied the Commission with MFN rates for base and bound rates for China's industrial goods. The Foreign Agriculture Service of the U.S. Department of Agriculture supplied base and bound tariff rates for China's food and agricultural commodities.

[2] In the China-WTO model, similar to other computable general equilibrium models, the two-tiered tariff scheme for the TRQ has not been modeled.

Impact on the U.S. Economy of China's April 1999 Tariff Offer

Effects of reductions in China's tariffs were measured for the overall U.S. economy and for 25 industry sectors. Table 7-1 sets forth the effects of the April 1999 offer, showing small but positive U.S. aggregate trade and economy-wide gains. Gross domestic product for the United States would increase by $0.3 billion as a result of China's trade liberalization under the static case. When accounting for growth effects, U.S. GDP would increase by $1.7 billion due to increased trade with China and with the world. Household welfare change is positive for both the static and growth cases, increasing by $1.8 billion in the static case and $3.3 billion when growth effects are taken into account. The welfare gain is due in part to the favorable change in its terms of trade the United States will experience. Prices paid for imports fall relative to prices received for exported goods. This has the effect of improving U.S. households' standard of living. Both total exports and total imports would increase as a result of China's tariff reductions. Without accounting for growth effects, U.S. total exports from the April 1999 tariff offer would increase

Table 7-1
Impact of April 1999 tariff offer on the U.S. economy

	Static effects		Static plus growth effects[1]	
Item	**$ Billions**	**% Change**	**$ Billions**	**% Change**
GDP[2]	0.3	([3])	1.7	([3])
Household welfare gain[2]	1.8	([3])	3.3	([3])
Total exports[4]	1.5	0.2	1.9	0.2
Total imports[4]	0.9	0.1	1.1	0.1
Exports to China[4]	2.4	9.0	2.7	10.1
Imports from China[4]	3.4	5.2	4.4	6.9
Terms of Trade	([5])	0.2	([5])	0.1
Skilled wages	([5])	([3])	([5])	([3])
Less skilled wages	([5])	([3])	([5])	([3])

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] These estimates reflect flexible exchange rates.
[3] Change less than 0.05 percent.
[4] Exports are valued at f.o.b prices. Imports are valued at c.i.f. prices. These estimates reflect fixed exchange rates.
[5] Not applicable.
Source: USITC staff estimates for base year 1998.

by 0.2 percent or $1.5 billion while imports from the world would increase less, 0.1 percent or $ 0.9 billion. Accounting for both static and growth effects, U.S. exports to China would increase by $2.7 billion while imports from China increase by $4.4 billion. Wages increase as the result of labor relocating into more productive uses.

Table 7-2 sets forth the effects of the April 1999 offer for selected U.S. industrial and agricultural commodity exports to China. (See table E-2 in appendix E for the data on China's current tariff levels and after full implementation of the April tariff 1999 offer). In 1995, China became a net importer of food as demand grew faster than domestic food production. The United States has traditionally been a net exporter of food and agricultural commodities to China. As import barriers are reduced, China's households will substitute lower-priced foreign produced food for higher cost domestically produced food thereby further adding to the U.S. surplus in food trade with China. The impact on commodities is driven not only by tariff cuts for the individual commodities themselves, but where there are strong cross-commodity linkages, reductions in tariffs in one commodity can affect trade in another related commodity.[3] In addition, they are affected by tariff reductions in all other sectors.

The impact on trade in individual agricultural commodities varies depending on the size of the tariff reductions and on the initial volume of trade. Among

[3] Since China is the only country reducing tariffs, the impacts are not compounded by changes in other countries' policies.

Table 7-2
Impact of April 1999 tariff offer on U.S. exports to China by sector[1]

	Static effects		Static plus growth effects[2]	
Sector	**$ U.S. millions**	**% change**	**$ U.S. millions**	**% change**
Wheat	33.0	15.5	42.8	20.8
Rice	([3])	([4])	([3])	([4])
Other grain	56.6	27.6	66.4	33.6
Oilseeds	-5.6	-7.9	-1.9	-2.9
Sugar	([3])	3.4	([3])	11.2
Cotton	230.1	59.2	252.3	67.7
Vegetable oils	288.5	145.8	294.4	154.1
Wool	([3])	3.4	([3])	7.8
Beverages and tobacco	222.9	124.5	217.7	127.3
Textiles	44.1	21.6	47.9	23.9
Wearing apparel	12.6	28.4	12.5	29.1
Footwear and leather	126.7	21.3	138.1	23.8
Wood products	4.3	1.7	10.1	4.2
Paper and pulp	84.5	11.6	102.3	14.5
Petroleum products	9.8	11.3	12.6	15.1
Chemicals, rubber and plastics	102.2	2.8	170.0	4.8
Mineral products	13.3	5.0	17.9	6.9
Iron and steel	10.0	3.0	16.4	5.1
Other metals	17.7	7.3	23.9	10.1
Metal products	62.5	12.3	70.9	14.3
Motor vehicles and parts	-592.8	-7.5	-329.2	-4.3
Other transport equipment	-107.6	-7.5	-75.2	-5.3
Electronic equipment	283.6	14.1	330.9	16.8
Other machinery and equipment	515.6	11.0	611.8	13.2
Other manufactures	205.6	114	208.4	119.1

[1] Data on tariff levels pertaining to April 1999 offer is provided in table E-2 in Appendix E.
[2] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[3] Change less than $500,000.
[4] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

the largest tariff cuts for U.S. agricultural commodities are vegetable oils,[4] and beverages and tobacco, * * *. These cuts in turn produce the relatively larger growth in U.S. exports.

The size of China's tariff cuts varies by supplying partner. That is, not all suppliers of vegetable oils to China would receive the same tariff reductions. This is because the tariffs are calculated as a trade-weighted average where the size of the cuts on individual commodities and actual volume of trade differ by partner. For example, in the case of vegetable oils, not all individual oils would be cut by the same amount, and each exporter supplies different vegetables oils in different proportions. * * *.[5]

* * * * * * *.

However, U.S. * * * . * * *.

* * * * * * *.

Among industrial products, in terms of value, U.S. exports of * * * would expand the most as a result of China's April 1999 tariff offer when growth effects are considered (table 7-2). * * *.

However, the model results indicate that U.S. * * *. This has to do with the differences in tariff reductions by China and the resulting increased demand. That is, markets in China that are relatively more open initially will not grow as much as those markets with high tariff barriers where substantial tariff cuts occur. China's demand for specific U.S. goods will be affected by the size of the tariff cuts and current U.S. trade to the Chinese market. Sectors where demand grows relatively less when China removes tariff barriers that are already low will be at a competitive disadvantage in attracting and retaining factors of production. An appropriate example is in the transportation sector where the initial tariff is only 3.8 percent, the lowest level among industrial goods. Since China's trade liberalization has a small effect on demand for this sector, other sectors will benefit more. In this comparative static analysis where there are fixed factors of production in the economy, exports of transportation goods decrease as increased demand for other sectors is stronger. The decrease in the exports of transportation sector products however, is less when growth effects are taken into account (decline from about 8 percent to about 5 percent).

Table 7-3 displays the effects of China's April 1999 offer on U.S. total trade (imports and exports) with all countries. The impacts on individual trade sectors vary depending on the size of trade with and tariff cuts offered by China. In some cases sectors would be directly affected by the April 1999 offer. In other cases U.S. trade would be indirectly affected by adjustments taking place in the rest of the world in response to China's tariff cuts. Among food and agricultural sectors, total U.S. exports of * * *.

Exports to the world of U.S. wearing apparel would decline while imports from the world would likely grow an additional 1 percent or $600 million as a result of China's tariff reductions. U.S. footwear exports, however, would increase by 1.5 percent, while at the same time imports of footwear would grow by 2.3 percent. For heavy manufactures, exports of U.S. motor vehicles would decline by 0.7 percent. However, the decline would be reduced to 0.2 percent if growth effects of trade liberalization are taken into account.

Table 7-4 displays the likely changes in sectoral output for the U.S. economy as a result of China's tariff reductions. It is important to recognize that exports to China represent a small fraction of total U.S. industrial output. It is therefore not surprising to find small effects for many of the larger U.S. sectors.

Agricultural sectors that would gain the most are cotton and vegetable oils whose output would increase by 2.4 percent and 1.5 percent, respectively when growth effects are considered. Industrial sectors most likely to be negatively affected are wearing apparel, footwear, and other light manufactures, which would experience a decline of less than 2 percent with or without accounting for trade-induced growth effects. Generally, these sectoral adjustments are consistent with the underlying comparative advantage of the U.S. and Chinese economies. Reductions in China's tariffs would reinforce structural changes that have already been taking place over time.

Although the focus of this study is on China and the United States, it is important to present a broader picture to gain a fuller understanding of how and why the U.S. economy would be affected by China's WTO accession. In an integrated world economy, all countries are likely to be affected either directly or

[4] The base rate for soybean oil is 80 and the bound rate in 2004 is 9 percent. Initial quota quantity is 1.7 million tons and final quota is 2.3 million tons. *USDA/FAS* believes that China will ensure that the applied duty for soybean oil, peanut oil, cottonseed oil, sunflower seed oil, and corn oil is no greater than the applied duty for any other vegetable oil. The soybean oil tariff-quota will be increased commensurately with any autonomous increase in the tariff-quota quantity of any other vegetable oil. Beginning Jan. 1, 2006, China will remove soybean oil from Annex 2A and will grant the right to trade for soybean oil to all individuals and enterprises.

[5] * * *.

Table 7-3
Impact of April 1999 tariff offer on U.S. trade with the world

	Exports				Imports			
	Static effects		Static plus growth effects[1]		Static effects		Static plus growth effects[1]	
Sector	$ U.S. millions	% Change	$ U.S. millions	% Change	$U.S. millions	% Change	$U.S. millions	% Change
Wheat	17.8	0.3	29.0	0.4	0.2	0.1	0.2	0.1
Rice	-1.1	-0.4	-1.1	-0.4	0.1	0.7	0.1	0.9
Other grain	41.6	0.3	62.8	0.5	0.5	0.1	0.7	0.2
Oilseeds	-27.7	-0.4	-2.0	(3)	3.3	1.2	3.5	1.2
Sugar	-0.6	-0.3	-0.5	(3)	3.8	0.2	4.4	0.2
Cotton	253.7	5.6	284.0	6.3	(2)	(3)	(2)	-0.1
Vegetable oils	284.4	16.4	292.4	17.0	5.1	0.4	5.1	0.4
Wool	(2)	-0.2	(2)	0.4	(2)	(3)	(2)	-0.1
Beverages and tobacco	221.7	3.1	220.7	3.2	4.6	0.1	3.9	(3)
Textiles	-124.4	-1.3	-130.7	-1.4	61.6	0.5	69.0	0.5
Wearing apparel	-513.7	-6.4	-549.9	-6.9	534.4	1.0	599.3	1.1
Footwear and leather	44.8	1.5	51.6	1.7	579.4	2.3	650.1	2.6
Wood products	-27.8	-0.3	-27.5	-0.3	71.9	0.3	102.9	0.4
Paper and pulp	96.5	0.4	130.4	0.5	19.7	0.1	29.2	0.1
Petroleum products	14.7	0.3	19.7	0.4	7.1	0.1	7.1	0.1
Chemicals, rubber and plastics	216.4	0.3	319.2	0.4	101.6	0.2	179.2	0.3
Mineral products	-0.7	(3)	-4.5	-0.1	37.8	0.4	63.6	0.6
Iron and steel	3.3	(3)	-2.2	(3)	14.3	0.1	27.3	0.1
Other metals	12.9	0.1	22.3	0.2	6.6	(3)	6.0	(3)
Metal products	58.8	0.4	58.5	0.4	20.6	0.1	66.9	0.3
Motor vehicles and parts	-473.6	-0.7	-155.4	-0.2	-63.4	-0.1	–0.7	(3)
Other transport equipment	-48.1	-0.1	0.7	(3)	49.6	0.3	80.5	0.5
Electronic equipment	105.3	0.2	72.6	0.1	294.1	0.3	500.0	0.5
Other machinery and equipment	514.7	0.2	496.4	0.2	158.6	0.1	485.1	0.2
Other manufactures	-133.0	-0.8	-201.5	-1.2	552.0	1.4	694.5	1.8

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than $500,000.
[3] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

Table 7-4
Impact of April 1999 tariff offer on U.S sector growth
(Percentage change)

Sector	Static effects	Static plus growth effects[1]
Wheat	0.1	0.2
Rice	-0.1	-0.1
Other grain	0.1	0.1
Oilseeds	0.5	0.7
Sugar	-0.1	-0.1
Cotton	2.2	2.4
Vegetable oils	1.4	1.5
Wool	-0.1	0.2
Beverages and tobacco	0.2	0.2
Textiles	-0.5	-0.5
Wearing apparel	-1.1	-1.2
Footwear and leather	-1.7	-1.9
Wood products	-0.1	([2])
Paper and pulp	([2])	0.1
Petroleum products	([2])	0.1
Chemicals, rubber and plastics	([2])	([2])
Mineral products	([2])	([2])
Iron and steel	([2])	([2])
Other metals	([2])	([2])
Metal products	([2])	([2])
Motor vehicles and parts	-0.1	([2])
Other transport equipment	([2])	([2])
Electronic equipment	([2])	-0.1
Other machinery and	0.1	([2])
Other manufactures	-0.8	-1.0

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

indirectly by China joining the WTO. Those regions most affected by China's trade reforms are those with stronger bilateral trade links with China. Although U.S. trade with China would be directly affected, total U.S. trade would also be indirectly affected by trade with China's larger partner countries.

The modeling framework (the China-WTO model) used for this analysis links economies through bilateral-sector trade. This allows the model to capture the effects of trade interdependency among economies. The model ensures that there is consistency in the accounting of total world trade as well as individual bilateral country trade. World exports for each sector must be in balance with world imports. An increase in China's exports must be matched by the same increase in China's partner imports of Chinese goods. As shown in chapter 6, China depends more on the United States as a destination of goods than as a source of goods. For a given change in China's exports and imports, it would suggest that the United States would likely absorb more imports from China than the United States would supply to China. However, this does not suggest that the U.S. trade deficit would increase with the world even if the bilateral deficit with China increases. In the model, trade balances with other U.S. partners would vary in accordance with the prevailing market forces.

China has strong trade links with other East Asian economies. There has been growing interdependency among China, East Asia, and the United States,[6] making China's WTO accession of greater importance for these economies. If China reduces impediments to trade, the economies of Japan, Hong Kong, Taiwan,

[6] The nature of this dependency has been researched and verified. See Sano and Tamamura 1993 International Industrial Linkages and Economic Interdependency in Asia-Pacific Region: International Input-Output Analysis, Institute of Developing Economies, Tokyo Japan.

and Korea would absorb direct impacts. These economies are important partners for the United States. Growth in trade would be stimulated within the entire East Asian region, which would then stimulate trade with the United States. Changes in bilateral trade balances as a result of China's tariff reductions would cause changes in the U.S. trade balance. In fact, U.S. firms may stand to gain from China's accession not only from increased exports to China but also from increased sales to other East Asian countries.

Bilateral trade balances would be affected differently by the tariff cuts in China's April 1999 offer. The U.S. bilateral trade deficit with China would likely increase, but at the same time the U.S. global trade deficit would decrease as a result of larger exports to other East Asian countries. Table 7-5 provides estimates on U.S. bilateral trade balances. The bilateral deficit with China would increase by $149 million when growth effects are not taken into account. When these effects are taken into account, the U.S. deficit with China would increase by $586 million, not an unexpected result given China's overall expansion through growth effects. As the United States is the largest importer of Chinese goods but a relatively small supplier of goods to China, it is not surprising that the trade deficit would increase as China's economy and trade grow. However, the U.S. trade deficit with the world would not increase but rather decrease. The U.S. has a positive change in its bilateral trade balance with several Asian economies including Japan, Korea, Taiwan, Hong Kong, ASEAN, and South Asia—all of which are large trading partners with China. To a large extent, the growth effects from China's tariff liberatization affects the bilateral trade deficit between the United States and Hong Kong. Without growth effects it would drop by $172 million, but with these effects it would increase by $477 million, thereby almost offsetting the growth in bilateral trade deficit with China.

Table 7-6 sets forth estimates for the effect of the April 1999 tariff offer on U.S. consumer prices. Generally, April 1999 tariff offer can be expected to increase Chinese demand for U.S. food products, since import prices of food would drop after removal of import barriers and economic growth in China would fuel increased demand for imports. This would increase U.S. food-related incomes, and have a positive, but negligible effect on U.S. food prices. Land supply and land productivity would not be affected by tariff reduction in China, so the additional growth in demand induced by the growth effects would tend to increase this small upward tendency in

Table 7-5
Impact of April 1999 tariff offer on the direction of change in U.S. bilateral trade balance

Partner	Static effects	Static plus growth effects[1]
	— *$U.S. millions* —	
Canada	24	27
Mexico	89	83
EU	74	39
Japan	63	115
Other OECD	-21	-18
Korea	129	133
Taiwan	300	329
Hong Kong	-172	477
China	-149	-586
ASEAN	126	47
South Asia	194	113
Rest of World	7	-83
World	664	674

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
Source: USITC staff estimates for base year 1998, reflecting fixed exchange rates.

Table 7-6
Impact of April 1999 tariff offer on U.S. consumer prices
(Percentage change)

Sector	Static effects	Static plus growth effects[1]
Wheat	0.1	0.1
Rice	0.1	0.1
Other grain	0.1	0.1
Oilseeds	0.1	0.1
Sugar	0.1	0.1
Cotton	0.1	0.1
Vegetable oils	([2])	0.1
Wool	([2])	0.1
Beverages and tobacco	([2])	([2])
Textiles	-0.1	-0.01
Wearing apparel	-0.2	-0.2
Footwear and leather	-0.8	-0.9
Wood products	([2])	([2])
Paper and pulp	([2])	([2])
Petroleum products	([2])	([2])
Chemicals, rubber, and plastics	([2])	([2])
Mineral products	([2])	([2])
Iron and steel	([2])	([2])
Other metals	([2])	([2])
Metal products	([2])	([2])
Motor vehicles and parts	([2])	([2])
Other transport equipment	([2])	([2])
Electronic equipment	([2])	-0.01
Other machinery and equipment	([2])	([2])
Other manufactures	-0.4	-0.5

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

food prices. On the other hand, U.S. consumers would benefit from lower prices on footwear and leather goods, wearing apparel, and electronics. Lower import prices would contribute positively to consumer welfare.

Impact on the U.S. Economy from Alternative Simulated Tariff Scenarios

This section discusses some of the alternative tariff scenarios that USTR initially asked the Commission to analyze. China's tariff levels have fallen from their 1992 levels. It could therefore be said that the U.S. economy has already been affected by China's trade liberalization. Further liberalization reinforces the adjustments that are already taking place.

The scenarios involve two hypothetical tariff cuts: a 25 percent cut and a 50 percent cut, using bases at the 1997 tariff level and the 1992 tariff level. Table 7-7 presents the economy-wide effects of these scenarios. In general, there is a consistent pattern regarding the impacts of these cuts. The model shows larger impacts starting from the 1992 tariff level than at the 1997 tariff level. This implies that had China not reduced its tariffs prior to 1997, the impacts of the latter tariff reductions on the U.S. economy would be greater. Since cuts have actually been made between 1992 and 1997, the gains from trade liberalization have already been absorbed in the U.S. economy. In all scenarios, U.S. GDP increases and the impacts on total trade are small. Welfare gains and improved terms of trade for the United States occur in all cases. There is minimal impact on wages for both skilled and less skilled labor in both the 25 percent and 50 percent tariff reduction scenarios.

Table 7-7
Impact of alternative tariff reductions from 1992 and 1997 levels on the U.S. economy
Percentage change

	From 1992 tariff base		From 1997 tariff base	
	Static plus growth effects[1]		Static plus growth effects[1]	
Item	**25% cut**	**50% cut**	**25% cut**	**50% cut**
GDP	(2)	0.1	(2)	(2)
Household welfare gain	0.05	0.1	(2)	0.1
Terms of trade	0.1	0.3	0.1	0.1
Total Exports	0.1	0.3	0.1	0.2
Total Imports	0.3	0.6	0.2	0.3
Skilled wages	(2)	0.1	(2)	0.1
Less skilled wages	(2)	0.1	(2)	(2)

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

Table 7-8 shows effects on a sector by sector basis for four scenarios. The direction of change is consistent for most sectors in all scenarios. One exception is for wheat, because of an increase in the tariff level from 1992 to 1997. Other sectoral impacts are larger using the 1992 tariff levels than the 1997 levels since the 1992 tariff levels were higher than the 1997 tariff levels. Sectors that would most likely be negatively affected by tariff reductions are textiles, wearing apparel, footwear and other light manufactures, where China has a comparative advantage. However, these negative impacts are lower using the 1997 tariff levels as compared with the 1992 tariff levels. For example, the results indicate that if tariffs were cut by 50 percent from the 1992 level, the U.S. footwear industry output would decline by 5.3 percent. Given the same cut in 1997, the footwear industry would decline by 2.6 percent. This again points to the fact that U.S. sectors have already been affected by China's tariff cuts. Sectors where output is likely to expand are in the areas of chemicals, petroleum products, paper and pulp, and motor vehicles and parts.

The USTR requested an assessment of the impact on certain agricultural commodities (see chapter 4 for greater details). Tables 7-9 and 7-10 describe the effects of hypothetical 25 and 50 percent reductions on exports of these selected agricultural commodities from a 1992 base and a 1997 base, respectively. From the 1992 tariff levels, in terms of value of trade, other grain (principally corn) and cotton are likely to increase the most as result of tariff reductions. These commodities are of a higher priority for the U.S. agricultural sector. Beverages and tobacco exports are also expected to increase significantly. This is largely driven by the high rates of protection given to this sector in China which when reduced would increase demand for U.S. exports.

Overall tariff reforms made by China will have positive impacts on the U.S. agricultural sector. Agriculture is one sector in China where production is more constrained compared with other sectors because of land scarcity. In addition, China's growth in the manufacturing sector will absorb more agricultural labor. Trade liberalization will likely accelerate the pace of this adjustment benefitting U.S. agriculture.

Impact on the U.S. Economy from the Removal of Selected Non-tariff Barriers

As was indicated in Chapter 1, the lack of necessary data on the relevant tariff equivalents (TEs) precluded an estimation of likely effects of the liberalization of non-tariff barriers (NTBs) specified in the April 1999 offer. However, in order to demonstrate the incremental impact of NTBs beyond

Table 7-8
Impact of alternative tariff reductions from 1992 and 1997 levels on U.S. sector output
Percentage change

	From 1992 tariff base		From 1997 tariff base	
	Static plus growth effects[1]		Static plus growth effects[1]	
Sector	**25% cut**	**50% cut**	**25% cut**	**50% cut**
Wheat	-0.1	-0.1	(2)	0.2
Rice	-0.1	-0.2	(2)	(2)
Other grain	0.1	0.2	(2)	(2)
Oilseeds	0.1	0.2	(2)	0.1
Sugar	(2)	-0.3	-0.1	(2)
Cotton	0.4	0.9	0.3	0.8
Vegetable oils	0.2	0.5	0.1	0.2
Wool	0.2	0.4	0.2	0.4
Beverages and tobacco	(2)	0.1	0.1	0.2
Textiles	-0.4	-0.9	-0.2	-0.4
Wearing apparel	-0.9	-2.1	-0.5	-1.0
Footwear and leather	-2.5	-5.3	(2)	-2.6
Wood products	(2)	-0.1	(2)	-0.1
Paper and pulp	(2)	0.1	(2)	0.1
Petroleum products	0.1	0.1	(2)	0.1
Chemicals, rubber and plastic	(2)	(2)	(2)	(2)
Mineral products	(2)	-0.1	(2)	(2)
Iron and steel	(2)	-0.1	(2)	(2)
Other metals	(2)	-0.1	(2)	(2)
Metal products	(2)	0.1	(2)	(2)
Motor vehicles and parts	0.2	0.3	0.1	(2)
Other transport equipment	0.07	0.2	(2)	(2)
Electronic equipment	-0.08	-0.2	(2)	(2)
Other machinery and equipment	(2)	(2)	(2)	(2)
Other manufactures	-1.2	-2.6	-0.8	-1.6

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Change less than 0.05 percent.
Source: USITC staff estimates for base year 1998.

Table 7-9
Impact of reductions in China's1992 tariff levels on selected U.S. agricultural exports

	Static plus growth effects[1] 25% cut		Static plus growth effects[1] 50% cut	
Commodity	**$U.S. millions**	**% change**	**$U.S. millions**	**% change**
Wheat	5.3	1.0	12.1	1.8
Rice	0	0	0	0
Other grain	50.4	6.6	106.8	14.1
Oilseeds	(2)	1.0	0.5	0.66
Sugar	(2)	15.6	(2)	35
Cotton	60.3	4.4	128.7	9.5
Vegetables oils	38.9	16.8	87.8	38
Wool	(2)	7.3	0.107	15.8
Beverages and tobacco	26.8	82.5	89.2	274

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Less than $500,000.
Source: USITC staff estimates for base year 1998.

Table 7-10
Impact of reductions in China's 1997 tariff levels on selected agricultural exports

Commodity	Static plus growth effects[1] 25% cut		Static plus growth effects[1] 50% cut	
	$U.S. millions	% change	$U.S. millions	% change
Wheat	4	1.0	8.1	1.6
Rice	0	0	0	0
Other grain	9.4	1.2	18.9	2.5
Oilseeds	([2])	0.4	([2])	0.8
Sugar	([2])	3.6	([2])	7.6
Cotton	36.4	3.1	76.4	6.5
Vegetables oils	13.8	3.9	27.9	7.9
Wool	0.039	6.6	0.081	13.8
Beverages and tobacco	53.3	43.3	140	113.6

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] Less than $500,000.
Source: USITC staff estimates for base year 1998.

that of tariff reductions, an estimation is done for a selected number of NTBs, coupled with a hypothetical 50 percent cut in 1997 tariff rates.

The primary source of TE data applicable to selected Chinese NTBs is the Institute for International Economics (IIE).[7] The IIE calculated TEs for NTBs affecting imports of 25 of China's most highly protected agricultural and manufactured products. These 25 products accounted for about 30 percent of all Chinese imports in 1994. The estimated TEs, along with tariff data, were incorporated in the formal model framework to estimate the additional impact on the U.S. economy of removing these NTBs simultaneously with a 50 percent cut in 1997 tariff levels.[8] These estimates reflect only partial NTB removal, and hence understates the potential impact of removing all NTBs in the Chinese economy.

Table 7-11 sets forth the incremental impact on the United States of selected NTB removal beyond the 50 percent tariff reduction for the 1997 base year. The coupling of a 50 percent tariff cut with the removal of selected NTBs doubles the small percentage point increases in U.S. GDP, total trade, and less skilled wages.

Table 7-12 sets forth the impact of selected NTB removal coupled with a 50 percent cut for16 U.S. industrial sector exports to China. Sectors that would benefit most from greater exports to China are chemicals, rubber, and plastics, iron and steel, other metal products, motor vehicles and parts, and electronic equipment. Larger increases in these exports to China correspond to the relative size of the NTBs, measured as a price distortion between domestic and world prices. For example, in the chemicals, rubber, and plastics sector, a 50 percent tariff cut would increase U.S exports by about $180 million. Coupled with the removal of selected NTBs, exports would increase to about $900 million. This is primarily due to the NTB (i.e., quotas) applicable to aluminum phosphate plastics in this sector, which acts to raise its domestic price in China by 72 percent above the world price. Since the United States is a supplier of aluminum phosphate plastics and other chemicals, complete removal of this trade distorting impediment expands U.S. trade to China. Thus, this sector would likely export an additional $700 million more to China if the selected NTB is removed than if it remains in place.

Removal of the selected NTB would likely increase exports of motor vehicles and parts to China by almost $500 million as China's domestic price for these products would fall by about 24 percent, the tariff

[7] Zhang Shuguang, Zhang Yansheng, and Wan Zhongxin, *Measuring the Cost of Protection in China*, (Washington, DC: IIE, November 1998), Institute for International Economics. See appendix E.

[8] The IIE data on tariff equivalents for 25 Chinese products presented in Appendix E were employed to estimate the impact on the U.S.economy of the removal of certain Chinese NTBs in the 50 percent cut in 1997 tariff levels.

Table 7-11
Impact of removal of selected NTBs with 50 percent tariff cut on U.S. economy
(Percentage change)

	1997 tariff base	
	Static plus growth effects[1]	
Item	**50% cut**	**50% cut plus NTB[2] removal**
GDP	([3])	0.1
Household welfare	0.1	0.1
Terms of trade	0.1	0.2
Total U.S. Exports	0.2	0.3
Total U.S. Imports	0.3	0.6
Skilled wages	0.1	0.1
Less skilled wages	([3])	0.1

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] These estimates do not reflect removal of all China's NTBs but only those applicable to 25 commodities. Therefore, effects related to NTBs are understated. See table E-1 in Appendix E for NTB data employed in the model.
[3] Change less than 0.05 percent.

Source: USITC staff estimates for base year 1998.

Table 7-12
Impact of removal of selected NTBs with 50 percent tariff cut on U.S. industrial exports to China
Percentage change

	Static plus growth effects[1]			
	50% cut		50% removal plus NTB[2]	
Commodity	**U.S. millions**	**% percent**	**U.S. millions**	**% percent**
Textiles	***	***	***	***
Wearing apparel	***	***	***	***
Footwear and leather	***	***	***	***
Wood products	***	***	***	***
Paper and pulp	***	***	***	***
Petroleum products	***	***	***	***
Chemicals, rubber, plastics	***	***	***	***
Mineral products	***	***	***	***
Iron and steel	***	***	***	***
Other metals	***	***	***	***
Metal products	***	***	***	***
Motor vehicles and parts	***	***	***	***
Other transport equipment	***	***	***	***
Electronic equipment	***	***	***	***
Other machinery and equipment	***	***	***	***
Other manufactures	***	***	***	***

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.

[2] These estimates do not reflect removal of all China's NTBs but only those applicable to 25 commodities. Therefore, effects related to NTBs are understated. See table E-1 in Appendix E for NTB data employed in the model.

Source: USITC staff estimates for base year 1998.

equivalent applicable to these products. Exports of electronic equipment consist of a variety of electronic goods including consumer goods, computers and computer parts. The TEs applicable to products in this sector range from 6 percent to about 46 percent. U.S. exports of these products are expected to more than double if the selected NTBs were removed plus tariffs were to be cut by 50 percent. These results indicate that even partial removal of NTBs has strong implications for U.S. exports to China.

Table 7-13 sets forth the impact of 50 percent tariff reduction and the removal of NTBs on selected agricultural exports. In the case of wheat, * * *.

Table 7-13
Impact of 50 percent tariff cut and removal of selected NTBs on U.S. selected agricultural exports to China

	Static plus growth effects[1]			
	50% cut		50% removal plus NTB[2]	
Commodity	U.S. millions	% percent	U.S. millions	% percent
Wheat	***	***	***	***
Rice	***	***	***	***
Other grain	***	***	***	***
Oilseeds	***	***	***	***
Sugar	***	***	***	***
Cotton	***	***	***	***
Vegetables oils	***	***	***	***
Wool	***	***	***	***
Beverages and tobacco	***	***	***	***

[1] Growth effects include productivity growth and capital accumulation associated with China's trade liberalization.
[2] NTB stands for non-tariff barriers. These estimates do not reflect removal of all China's NTBs but only those applicable to 25 commodities. Therefore, effects are understated. See table E-1 in Appendix E for NTB data.
[3] ***.
[4] ***.

Source: USITC staff estimates for base year 1998.

CHAPTER 8
Impact on the United States from eliminating Quotas on Textiles and Apparel relative to China's WTO Accession

Introduction

The Commission was requested to assess the effect on the U.S. economy of the removal of quantitative restrictions on textile and apparel imports by all WTO members relative to the accession of China in the WTO. The chapter is divided into two main parts. The first part contains background information on the textile and apparel sector in the United States and China, followed by a description of the implementation of quota reductions and a discussion of the likely outcome for specific apparel imports into the United States. The second part of the chapter provides results for this sector from the multi-period growth version of the China-WTO model, accompanied by a broad-based analysis of the economic effects on the United States.

As a frame of reference, a brief overview follows of the textile and apparel sectors in the United States and China, and of China's textile and apparel trade with the world and with the United States. Almost three-quarters of U.S. textile and apparel imports from China consist of apparel, virtually all of which are covered by some type of quota. Although the majority of apparel from China continues to be of low- to medium-quality, the Chinese apparel industry is becoming more quality oriented and is beginning to produce higher-valued goods. Hong Kong's return to Chinese rule has enhanced China's apparel industry, resulting in an industry that can supply full package[1] apparel production at significantly lower costs. China is also in the process of restructuring its textile industry, selling off excess and outdated capacity and modernizing production. In terms of world and U.S. trade with China, China's largest export markets for textiles and apparel are Japan, the European Union, and the United States, which together accounted for 38 percent of China's exports in 1997. Transshipment problems with China and how the U.S. Customs Service works to combat this practice are discussed in this chapter, as are the current United States-China bilateral agreement, the WTO's Agreement on Textiles and Clothing (ATC), and the plan for the elimination of quotas for WTO members under the ATC. The effects of accelerating quota growth rates—including the expansion of China's quotas at the same rate as those of other WTO members—are analyzed by comparing how fast China's quotas would grow compared to other suppliers. The formal modeling analysis using the multi-period growth version of the China-WTO model assumes that China would enter the quota phase-out program discussed above at the same phase as existing WTO members.

Profile of U.S. Textile and Apparel Industry

In terms of employment, the U.S. textile and apparel sector, which includes producers in Standard Industrial Classification (SIC) groups SIC 22 (Textile Mill Products) and SIC 23 (Apparel and Other Textile Products), has declined considerably over the years. In the early 1970s, the sector employed 2.4 million workers, or 12.1 percent of U.S. manufacturing employment. In 1998, employment fell to just under 1.4 million workers, or 7.3 percent of manufacturing jobs. Similarly, the sector's share of value added for all manufacturing fell from just over 6 percent in the 1970s to 3.9 percent ($54 billion, current dollars) in

[1] Although full-package service refers to many different types of comprehensive sourcing arrangements, in this case, full-package apparel production refers to an apparel company in Hong Kong, for example, guiding garment production through all of the steps from design through distribution of the finished products. For more information on full package service, see Gary Gereffi and Jennifer Bair, "U.S. Companies Eye NAFTA's Prize," *Bobbin*, Mar. 1998, p. 26.

1997.[2] In terms of industry shipments, the U.S. textile and apparel sector has shown little growth in recent years (table 8-1). The sector, particularly apparel, faces keen import competition from low-labor-cost developing countries. Notwithstanding quota restrictions and relatively high tariffs, data reported by the U.S. Department of Commerce show that U.S. imports of apparel of textile and non-textile materials grew by 54 percent during 1993-97 to $62.3 billion, based on the landed duty-paid value. A major portion of these imports came from countries which benefit from preferential access to the U.S. textile and apparel market, namely Mexico and Canada under the North American Free Trade Agreement (NAFTA), and beneficiary countries under the Caribbean Basin Economic Recovery Act (CBERA). Imports now account for slightly more than one-half of the U.S. apparel market. The landed duty-paid value of U.S. textile imports rose by 47 percent during the period to $14.7 billion.

The framework for textile and apparel trade will become less restrictive as a result of the phase out of quotas under the ATC.[3] Such trade liberalization will most likely spur further investment in some developing countries for production of these goods for export, thereby adding to the competitive pressures facing the U.S. industry. Moreover, the ATC requires both developed and developing countries to reduce trade barriers on textile and apparel goods in their home markets. During the Uruguay Round of multilateral trade negotiations, the United States sought market-access commitments from WTO members that are significant exporters of these goods to the United States. While developing countries, such as Egypt, India, Pakistan, the Philippines, Thailand, and Turkey, either have already reduced their tariffs or have committed to do so for U.S. sector exports, numerous nontariff barriers still persist in these countries that present significant obstacles to U.S. exports.

[2] U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Aug. 1996, p. 150, and Mar. 1999, p. D-28.

[3] For more information on the ATC, see "WTO Textile Agreement," below.

U.S. Textile Industry

The U.S. textile industry is one of the world's largest and most efficient textile producers. During the past decade, domestic firms have restructured operations extensively, investing heavily in technology to increase productivity and capacity while reducing employment levels. The industry has achieved high levels of productivity in the production of high-volume commodity goods and in printing, dyeing, and finishing operations. Textile mills have also invested in technology to improve manufacturing flexibility in an effort to coordinate production and marketing with the needs of their downstream apparel customers.

Table 8-1
Selected economic indicators for the U.S. textile and apparel industries, 1993-98

Item	1993	1994	1995	1996	1997	1998
Textile mill products (SIC 22):						
Industry shipments (*million dollars*)	73,961	78,004	79,892	80,196	83,906	80,944
Production index *(1992=100)*	105.3	110.6	110.2	108.9	112.2	112.3
Capacity utilization (*percent*)	89.6	91.2	88.5	85.8	85.3	83.2
Employment (*1,000 persons*)	675	676	663	626	616	596
Capital expenditures (*million dollars*)	2,450	2,961	2,886	2,666	(1)	(1)
Apparel and other textile products (SIC 23):						
Industry shipments (*million dollars*)	74,029	76,947	78,073	77,564	78,782	80,014
Production index *(1992=100)*	102.4	106.3	107.1	104.7	102.8	99.4
Capacity utilization (*percent*)	81.3	83.4	82.5	79.5	77.1	74.2
Employment (*1,000 persons*)	989	974	936	868	826	771
Capital expenditures (*million dollars*)	961	1,091	1,187	964	(1)	(1)

1 Not available.

Source: Production and capacity utilization data from the Board of Governors of the Federal Reserve System, found at Internet address http://www.bog.frb.fed.us/releases/G17/download.htm, retrieved Apr. 22, 1999; employment data from U.S. Bureau of Labor Statistics, found at Internet address http://146.142.4.24/cgi-bin/dsrv, retrieved Apr. 22, 1999; and all other data from U.S. Bureau of the Census, industry shipments data (seasonally adjusted), e-mail of Apr. 22, 1999, and capital expenditures data, *1996 Annual Survey of Manufactures*, and back issues.

Compared with the apparel industry, the textile industry faces less direct competition from imports in most major segments, such as yarns, knit fabrics, carpets, and many home furnishings. The greatest direct import competition is in broadwoven cotton fabrics for use mainly in the production of apparel; imports supplied 29 percent of domestic demand for cotton fabrics in 1997.[4] A large portion of these fabrics come from India, Pakistan, and China, which benefit from low production costs.

Continued growth in apparel imports limits the domestic market for the U.S. textile industry to the extent that imports substitute foreign-produced yarns and fabrics for domestic materials. However, the growth in imports of apparel assembled offshore from U.S. components has spurred sales of U.S. fabrics or, at least, has helped offset reduced domestic demand for apparel fabrics. The value of garment parts cut to shape in the United States and sent offshore for assembly totaled $7.2 billion in 1997, and almost all of these exports went to the Caribbean countries ($4.1 billion) and Mexico ($2.8 billion).

U.S. Apparel Industry

The U.S. apparel industry is highly competitive and consists of about 18,500 establishments. Just over 60 percent of the establishments have fewer than 20 workers; only 10 percent employ 100 or more.[5] The industry faces intense competitive pressures in the domestic market. These pressures reflect not only the large number of suppliers in the market, but also the confluence of rising import penetration, growing buying power of large retailers, and changing consumer preferences. A growing concentration of retail sales among a few large retailers has enhanced the bargaining power of these retailers in negotiating prices and other contract terms with suppliers of apparel and other merchandise. Moreover, retailer requirements and changing fashions are creating pressure among apparel suppliers to reduce the "time to market" for their goods.

To sharpen their competitive edge, many U.S. apparel producers have restructured operations through consolidation of production, divestiture of noncore product lines, mergers, and acquisitions in an effort to reduce costs, gain market share, and widen channels of distribution. Firms have also been restructuring in order to shift their focus from manufacturing-driven to consumer- or marketing-oriented operations, and using domestic and foreign contractors to make garments to their specifications ("outsourcing"). In addition, an unknown but believed-to-be-growing number of mostly larger U.S. apparel producers have invested in "quick response" manufacturing, marketing, and distribution systems to respond more quickly to retailer needs and changing fashions.

A number of U.S. apparel producers have expanded their global sourcing operations, particularly the use of assembly operations in the Caribbean countries and Mexico. Under production-sharing arrangements set up in the Caribbean countries and Mexico, these firms ship U.S.-origin garment pieces there for sewing, the most labor-intensive stage of production, and re-import the assembled garments for sale in the domestic market. U.S. producers, along with retailers, also import apparel from East Asia, especially goods requiring more sewing and construction, complex operations, and detailed work.[6]

Profile of China's Textile and Apparel Industries

China is the world's largest producer of apparel[7] and has the largest production capacity for textile mill products. China is also the world's largest cotton-producing country[8] and has the largest manmade-fiber-producing industry. It is also the world's largest producer of silk, accounting for 50 percent of the world's silk production.[9]

China is the world's largest single-country exporter of textile and apparel products, as shown in figure 8-1. China's prominent position was fueled by its abundance of low-cost labor, which attracted foreign investment and expertise. In addition, the development of the sector became possible only when the Government of China began by 1979 to develop more of an open market economy.[10]

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[4] U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports: Broadwoven Fabrics (Gray)* (MQ22T(97)-1 - Summary 1997), June 1998, table 11a, found at Internet address http://www.census.gov/ftp/pub/industry/mq22t97c.txt, retrieved Apr. 22, 1999.

[5] Based on 1996 data of the U.S. Bureau of the Census, *County Business Patterns 1996–United States*, Nov. 1998, Internet address http://www.census.gov/prod/www/abs/cbptotal.html.

[6] Peter Chan, "Special Report: Sourcing - Asia: Down, But Not Out - An Insider's Perspective," *Bobbin*, Nov. 1998, p. 33.

[7] "Better Clothing Needed," *Textile Asia* (Hong Kong), Feb. 1998, p. 73. *Textile Asia* is a monthly publication covering the textile and apparel industries in Asia.

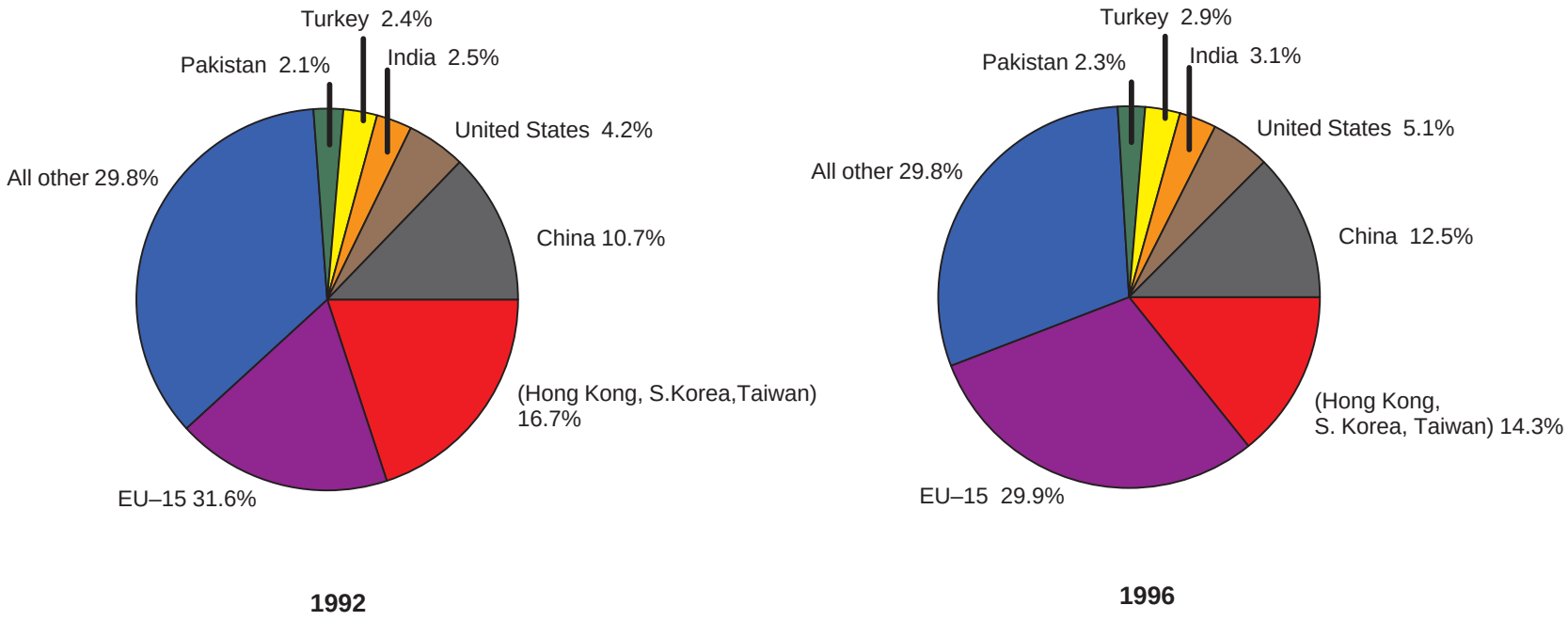
[8] Spinners Committee, International Textile Manufacturers Federation (ITMF), "Travel Report, China, Beijing - Xinjiang - Hybei," Oct. 7 - 15, 1997, p. 2.

[9] "Current Situation and Outlook of Garment Industry," *China Textile Express*, No. 6 (Mar. 25, 1998), pp. 1-2.

[10] "Textiles and Clothing in China," *Textile Outlook International* (United Kingdom), Mar. 1995, pp. 10-11.

Figure 8-1

Textiles and apparel: World exports, by selected countries and country groups, 1992 and 1996



Source: FAS' Global Agricultural Trade System using data from the United Nations Statistical Office.

To achieve its goal of developing more of an open market economy and to help the country's ailing economy at that time, the Chinese government selected the textile and apparel sector as a prototype for developing export-oriented industrialization.[11] Foreign investment in the form of joint ventures were encouraged as were state enterprise zones (like export processing zones). These were established in China's southern and eastern coastal areas.[12] In addition, the granting of most-favored-nation (MFN) status by the United States on January 30, 1980, opened up the U.S. market to Chinese goods.

Today, the textile and apparel sector is vital to China's economy, with garment exports having been China's largest foreign exchange earner in recent years.[13] In a major effort to expand exports in general, which had declined during the Asian financial crisis, the Government of China raised the tax rebate rate for China's apparel exports to 17 percent and the rate for textile raw materials and textile products to 15 percent in July 1999.[14] The textile and apparel sector accounts for one-fourth of China's total exports worldwide,[15] employs about one-seventh of China's industrial workforce, and accounts for about 6 percent of China's total industrial output.[16]

China's Apparel Industry

China's apparel industry consists of approximately 40,000 companies that produced 9 billion garments in 1997,[17] over 90 percent of which were considered to be of medium to low quality.[18] Chinese trade sources reported in early 1998 that China's apparel industry exported about one-half of its total production in 1997.[19] China's apparel industry has developed over the past 20 years with considerable assistance from foreign investment and expertise. Consequently, the industry has a high proportion of apparel producers that have relationships, such as joint ventures, with foreign investors, many from neighboring Asian countries. According to Chinese trade sources, in 1995, about 42 percent of China's apparel enterprises were foreign funded, almost 40 percent were township enterprises, 7 percent were private enterprises, only 6 percent were state-owned enterprises (SOEs), and almost 5 percent were urban collectives.[20] Chinese apparel producers that manufacture for export markets rely considerably on imported fabrics from such countries as Hong Kong, Italy, South Korea, Taiwan, and Japan.[21] About 55 percent of China's exported apparel is made from imported fabrics.[22] The prevalence of foreign investors and the fact that there are considerably fewer SOEs in China's apparel industry than in its textile industry have contributed to China's success as a world apparel supplier. The industry is becoming more quality oriented, producing a greater proportion of higher-priced garments, as the average unit price for woven garments increased from $3.79 per garment in 1996 to $4.17 per garment in 1997.[23] Today, China is not only one of the world's major suppliers of low-cost apparel, but also is becoming a low-cost producer of higher quality and higher-valued apparel. This shift may, in part, reflect the influence of tight U.S. quotas, which limited the quantity of textile and apparel products China could ship to the United States.

Mr. Charles V. Bremer, Director of International Trade, The American Textile Manufacturers Institute (ATMI), testified on behalf of ATMI that the Chinese apparel industry is noted not only for its size, but also for its diversity. He emphasized that Chinese textile and apparel products are found in every type of retail

[11] Ibid., p. 12.

[12] Ibid., p. 13.

[13] "Need to Upgrade," *Textile Asia*, June 1998, p. 76.

[14] Paul Mooney, "China Raises Tax Rebate Rates in Effort to Expand Exports," *BNA International Trade Daily*, The Bureau of National Affairs, Inc., July 21, 1999, Article No. 62021014.

[15] U.S. Department of Commerce, " China: Textile Industry Profile," IM, Dec. 14, 1998.

[16] "Textiles and Clothing in China," p. 16.

[17] Chinese production of garments above the town level was reported to amount to 6.877 billion pieces in 1997. China Textile Information Institute, "Current Situation and Outlook of Garment Industry," pp. 1-2.

[18] "Better Clothing Needed," p. 73.

[19] "Current Situation and Outlook of Garment Industry," pp. 1-2.

[20] Wan Zengjang, "A Review and Perspective: China's Clothing Industry," *China Textiles*, Shanghai, China, December 1998, p. 5. Translated by Mrs. Susan Chan Egan, Publisher of *Pacific Trade Winds*, Santa Barbara, CA.

[21] "Textiles consumption to reach over 12.5 billion yuan by 2004," *Journal for Asia on Textile and Apparel* (Hong Kong), vol. 10, No. 1 (Feb./Mar. 1999), pp. 9-10.

[22] Ibid., p. 10.

[23] "Current Situation and Outlook of Garment Industry," pp. 1-2. Further evaluation of the average unit values of imports of certain apparel, (men's cotton and manmade-fiber dress shirts and trousers, women's cotton and manmade-fiber knit shirts, and manmade-fiber sweaters and dresses), from China compared with the average unit values of similar products imported from Hong Kong, Korea, Indonesia, the Philippines, India, Pakistan, Turkey, the Dominican Republic, Costa Rica, and Mexico indicated that the unit values of the apparel from China were among the higher of the unit values from these countries. For example in 1998, the average unit value of imported men's cotton woven dress shirts imported from China was $7.13 per shirt; compared with $6.36 per shirt from India; $4.67 per shirt from Pakistan; and $5.38 per shirt from Mexico.

outlet, from the lowest-priced discounter to Neiman-Marcus.[24]

The trading up to higher-valued products also reflects the growing practice of Hong Kong moving its production into China.[25] Hong Kong traditionally has been a world supplier of higher-valued apparel, and China's product mix is slowly changing to reflect the higher-valued and better-quality apparel produced for Hong Kong firms. Trade sources report that Hong Kong's return to Chinese rule in 1997 has boosted China's textile and apparel sector, especially the apparel industry, as a growing number of Chinese apparel firms are able to supply full package apparel production at extremely low costs.[26] In addition, Hong Kong has been a major beneficiary of China's expanding apparel industry.[27] From the 1980s to the early 1990s, Hong Kong-based apparel producers began subcontracting production to state-owned factories in southeastern China. This outward-processing arrangement eventually turned into a relocation of Hong Kong's apparel industry, as a result of China's abundance of low-cost, skilled labor and inexpensive real estate costs relative to those of Hong Kong. Because Hong Kong manufacturers have shifted much of their production capacity to China, the number of Hong Kong workers employed by the apparel industry declined from 128,000 in 1993 to 45,000 in 1998.[28] Hong Kong has also become a regional sourcing hub for apparel; its apparel industry provides such services as product development, material sourcing, quality control, merchandising, trade financing, and logistics arrangements.

Competition in China's apparel industry is currently intense as domestic demand has increased. The relative ease of entry into apparel manufacturing has led to overcapacity.[29] The number of large firms equipped with the latest production equipment and processes is growing rapidly.[30] Many firms are developing sales and distribution channels both domestically and abroad. According to industry sources, apparel manufacturers in China are realizing that in order to compete in the world market, they must upgrade their production technology, facilities, and marketing strategies. Moreover, to compete in the domestic market, they must develop Chinese brand names and designer labels.

As China's apparel industry has become a source of not only low-priced apparel, but also medium- to higher-priced and higher quality apparel, labor costs in the industry increased from $0.28 per hour in 1996 to $0.43 per hour in 1998. Wage rates in China are not uniform and those in the southern province of Guangdong, where there is a high level of foreign investment and economic activity, can average 20 percent higher than in Beijing, for example.[31] Nevertheless, labor compensation costs[32] faced by Chinese producers continue to be lower than those faced by most other major suppliers (table 8-2).

China's Textile Industry

China's textile industry is characterized by a massive labor force, the prevalence of obsolete machinery and equipment, and low productivity. The industry is dominated by SOEs and has a relatively small level of foreign investment.

Table 8-3 shows China's large spinning and weaving capacities. In 1996, China had 25 percent of the world's installed spinning capacity in spindles and 45 percent of the world's installed weaving capacity in shuttle looms. Spindles used for making yarn and shuttle looms used for weaving fabrics represent older technology than open-end rotors used for spinning yarn and shuttleless looms used for weaving fabrics. However, spindles and shuttle looms are still used even in the most modern factories, because certain yarns can only be manufactured using spindles and certain fabrics are better made on shuttle looms. China's extremely high number of spindles and shuttle looms represents the Government of China's priority of employing as many people as possible. As discussed later in this section, the government is currently restructuring the textile industry and eliminating some of this equipment.

[24] Statement of Mr. Charles V. Bremer, Director, International Trade, on behalf of The American Textile Manufacturers Institute to the U.S. International Trade Commission, "Assessment of the Economic Effects on the United States of China's Accession to the WTO, USITC investigation No. 332-403, Feb. 23, 1999, p. 3.

[25] Although Hong Kong returned to Chinese rule in 1997, it is treated separately from China in the application of U.S. quotas and bilateral textile agreements.

[26] Peter Chan, "Special Report: Sourcing - Asia: Down, But Not Out - An Insider's Perspective," pp. 33-38.

[27] The following discussion is based largely upon Peter Chan, "Special Report: Sourcing - Asia: Down, But Not Out - An Insider's Perspective," pp.33-38.

[28] U.S. Department of State, prepared by American Consulate, Hong Kong, "Wage Study for the Apparel Industry: Hong Kong," message reference No. 01193, Feb. 1999.

[29] "Need to Upgrade," p. 76.

[30] "Current Situation and Outlook of Garment Industry," pp. 1-2. According to the China Textile Information Institute, this is especially true for manufacturers of down coats, men's shirts, and men's tailored suits.

[31] "Textiles and Clothing in China," pp. 22-23.

[32] These labor costs do not take into account differences in productivity in each of the country's apparel industries. These types of comparative productivity data are not available.

Table 8-2
Hourly labor costs[1] in the apparel industries of selected countries, in U.S. dollars, 1996 and 1998

Country	1996	1998
United States	9.56	10.12
Hong Kong	4.51	5.20
South Korea	4.18	2.69
Costa Rica	2.38	2.52
Mexico	1.08	1.51
Guatemala	1.31	1.28
China	0.28	0.43
India	0.36	0.39
Bangladesh	0.31	0.30
Indonesia	0.34	0.16

[1] Hourly labor costs include social and fringe benefits.

Source: Werner International Management Consultants, "Hourly Labor Costs in the Apparel Industry, 1998," New York, New york.

Table 8-3
Spinning and weaving sectors in the United States, China, and the world: Installed capacity, 1996; and cumulative shipments, 1988-97

Item	China	United States	World
SPINNING SECTOR:			
Installed spinning capacity, 1996:			
Spindles	45,700,000	5,574,000	180,289,000
Open-end rotors	603,600	968,000	7,566,700
Cumulative shipments, 1988-97:			
Spindles	1,574,820	1,068,180	40,479,916
Open-end rotors	151,483	779,644	4,341,727
WEAVING SECTOR:			
1996 installed weaving capacity:			
Shuttleless looms	49,110	62,450	679,750
Shuttle looms	774,970	9,210	1,710,040
Cumulative shipments, 1988-97:			
Shuttleless looms	81,834	27,910	523,444
Shuttle looms	40,665	41	124,805

Note.–Installed capacity refers to the capacity in place during the specified year; in this case, 1996. The term cumulative shipments refers to the number of spindles, open-end rotors, and looms that were physically shipped during the specified years. Spindles used for making yarn and shuttle looms used for weaving fabrics represent older technology than the open-end rotors used for spinning yarn and shuttleless looms used for weaving fabrics. However, both spindles and shuttle looms are still used even in the most modern factories since certain yarns can only be manufactured using spindles and certain fabrics are better made on shuttle looms.
Source: International Textile Manufacturers Federation (ITMF), *International Textile Machinery Shipment Statistics*, vol. 20/1997 (Zurich, Switzerland: ITMF), June 1998. The ITMF compiles the data from some 80 manufacturers of textile machinery and publishes the data on an annual basis. The 1997 coverage is virtually complete with the exception of China's manufacturers of spinning equipment.

The cumulative shipments data for 1988-97 in table 8-3 illustrate China's efforts to modernize and expand its textile industry. China has been aggressive in modernizing the weaving sector as the shipments of their shuttleless looms totaled 81,834, compared with shipments of 40,665 shuttle looms during 1988-97. China has been slower to modernize the spinning sector, as shown by its cumulative shipments of open-end rotors, totaling 151,483, compared with cumulative purchases of almost 1.6 million spindles during 1988-97.

Industry sources have reported that China's textile sector has been operating at a loss for the past five years. The loss reported for 1994-96 totaled $1.0 billion.[33] Based on these data, the losses declined in 1997 to an estimated $240.0 million. These losses are largely due to the dominance of SOEs, which have been inefficient and unprofitable, and operate with obsolete equipment and a massive and reportedly unskilled labor force. The primary goal of the SOEs was not to make profit, but to provide employment.[34] As the Government has gradually withdrawn assistance to the textile sector, about 40 percent of the textile SOEs are on the verge of bankruptcy. At the end of 1997 there were 4,031 state textile enterprises, employing over 4 million workers, which accounted for 10 percent of the national industrial workforce.[35] China's weaving and knitting mills are considered the weakest link of the textile sector, operating mostly with obsolete equipment.[36]

The major challenge facing China's textile industry is the transition from being controlled by inefficient SOEs to running market-oriented profit-generating firms. Specific challenges for the industry include training the unskilled labor pool, changing the world market perception of China as a producer of relatively low quality product with long lead times for delivery, finding or raising capital for investment in advanced technology (primarily through foreign investment channels), and finding jobs for those laid off in the midst of the restructuring.[37]

The Chinese Government has committed itself to an aggressive, comprehensive reform of its textile sector, which, if successful, will be the centerpiece for reform for all state-owned manufacturing industries.[38] The Government's restructuring plan includes mergers, acquisitions, closures, industry incentives, liquidation, and the downsizing of the workforce. Regarding spinning capacity, the Chinese Government's goal is to reduce spinning capacity from 42 million spindles to 30 million spindles.[39] A major factor inhibiting the Government's overall restructuring plan is determining how to manage layoffs resulting from the restructuring plan.

Nonetheless, the Government has accomplished some of its goals. For example, it has made progress in eliminating 60 percent of all cotton yarn spindles (10 million spindles) over a 3-year period. The Government has helped factories remove spindles, relocate workers, and issue favorable loans for new machinery.[40] It has also done the following: (1) granted tax rebates on the importation of textile machinery and equipment; (2) increased the value-added-tax (VAT) rebate on exports of certain textile and apparel items;[41] (3) distributed 15 percent of the textile quotas directly to manufacturers, bypassing the state export corporations; and (4) increased the overall number of quota categories available for distribution, thereby reducing the state export corporations' automatic share.[42]

Although China's hourly labor costs for the textile industry have increased, rising from $0.58 per hour in 1996 to $0.62 per hour in 1998, these costs are still among the lowest in the world, as shown in table 8-4.[43] But as mentioned above, productivity is low in China's textile industry, somewhat offsetting this wage cost advantage.

Trade and industry sources agree that the future of China's textile industry is virtually guaranteed given the need to clothe China's population of more than one billion. However, in order for its textiles to be

[33] William Wu Shang, International Textile Manufacturers Federation (ITMF), "Country Perspectives: China, Hong Kong, Taiwan," *The Changing Textile Face of Asia, Annual Conference Report $98*, p. 25.

[34] Spinners Committee, ITMF, "Travel Report, China, Beijing -Xinjiang - Hybei," Oct. 7 - 15, 1997, p. 9.

[35] "Recurring Losers," *Textile Asia*, Feb. 1998, p. 73.

[36] William Wu Shang, ITMF, "Country Perspectives: China, Hong Kong, Taiwan."

[37] Paul Leung, "Zhu's advice," *Textile Asia*, Apr. 1998, p. 55.

[38] U.S. Department of State cable, prepared by U.S. Embassy, Beijing, China, "China/Textile Industry: Everything You Might Possibly Want to Know," message reference No. 16696, Oct. 22, 1998.

[39] Spinners Committee, ITMF, "Travel Report, China, Beijing -Xinjiang - Hybei," Oct. 7 - 15, 1997, p. 2.

[40] "China/Textile Industry: Everything You Might Possibly Want to Know."

[41] Trade sources indicated that China had increased the VAT rebate rate from 11 percent to 13.56 percent. Most recently, effective July 1, 1999, China increased the VAT rebate rate to 17 percent for apparel and 15 percent for textile raw materials and textile products. See, for example, *Pacific Trade Winds*, Pacific Trade Winds Co., Santa Barbara, CA, May 1999, p. 3, and Aug. 1999, p. 2.

[42] *Pacific Trade Winds*, May 1999, p. 3.

[43] Werner International Management Consultants, "Hourly Labor Cost in the Textile Industry, 1998," New York, New York.

Table 8-4
Hourly labor costs[1] in the textile industries of selected countries, in U.S. dollars, 1996 and 1998

Country	1996	1998
Italy	16.65	15.81
United States	12.26	12.97
Taiwan	6.38	5.85
Hong Kong	4.90	5.65
South Korea	5.65	3.63
Turkey	2.02	2.48
India	0.56	0.60
China	0.58	0.62

[1] Hourly labor costs include social benefits and fringes.

Source: Werner International Management Consultants, "Hourly Labor Costs in the Textile Industry, 1998," New York, New York.

Table 8-5
Textiles and apparel: China's exports by major markets, 1992-97

Country	1992	1993	1994	1995	1996	1997
	Millions of U.S. dollars					
Japan total	5,114	6,915	9,504	11,431	12,331	11,519
From China	3,609	5,161	7,376	9,028	9,751	9,362
Re-exports from Hong Kong	1,505	1,754	2,128	2,403	2,580	2,157
United States total	5,317	7,390	7,362	6,903	7,266	8,162
From China	2,339	3,802	3,930	3,926	4,019	4,462
Re-exports from Hong Kong	2,978	3,588	3,432	2,977	3,247	3,700
EU15 total	5,572	6,943	7,293	7,016	7,125	8,070
From China	2,438	3,193	3,616	3,570	3,323	3,901
Re-exports from Hong Kong	3,134	3,750	3,677	3,446	3,802	4,169
All countries total	44,131	47,970	58,126	61,725	62,519	72,376
From China	25,287	27,140	35,550	37,967	37,146	45,631
Re-exports from Hong Kong	18,844	20,830	22,576	23,758	25,373	26,745

Source: Compiled from United Nations data for Standard International Trade Classification (SITC) division 84, articles of apparel and clothing accessories; and division 65, textile yarn, fabrics, made-up articles and related products.

competitive in the global market, China's industry will need to focus on quality and design, not quantity; on developing its marketing expertise; and improving its turnaround or delivery time.

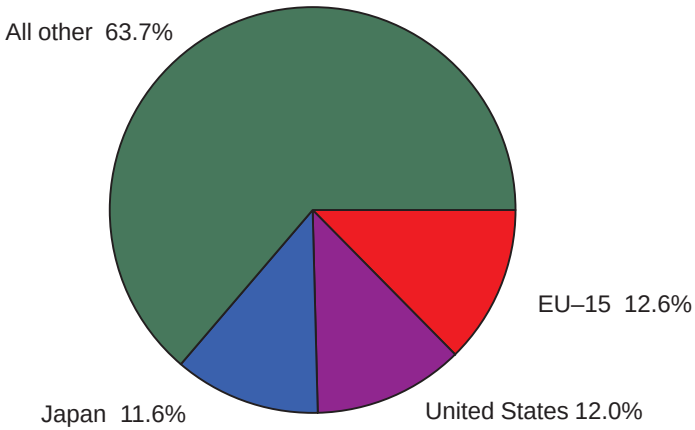
World-China Trade

Data reported by the United Nations (UN) show that China's direct exports of textiles and apparel grew by 80 percent from $25.3 billion in 1992 to $45.6 billion in 1997 (table 8-5). China also exports a significant portion of textiles and apparel to Hong Kong. However, the majority of these shipments consist of goods that are re-exported with very little value added to the same country markets as China's direct exports. China's direct exports of apparel, which totaled $31.8 billion in 1997, accounted for roughly 70 percent of the total value of China's exports of textiles and apparel.[44] China benefitted from the shift in apparel trade from the traditional "Big Three" Asian suppliers—Hong Kong, Korea, and Taiwan—which were the world's largest apparel exporters during the 1970s and 1980s. As labor and other production costs rose in those countries and labor became limited in Hong Kong, producers in these countries and world importers shifted production and purchases to China. In 1997, the largest markets for China's exports were Japan, taking 16 percent of the total value, and the United States and the European Union (EU), each accounting for about 11 percent, as shown in figure 8-2.

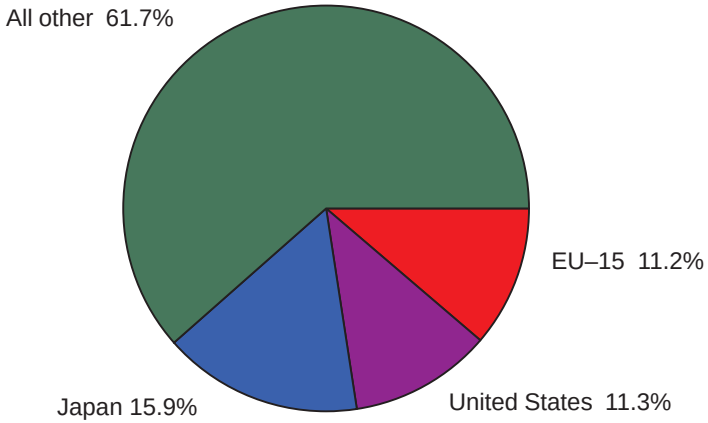
[44] The UN data differ from the Department of Commerce data reported in the following section because the UN data are shown on a Standard International Trade Classification (SITC) basis and include apparel made of all textile materials, as well as leather, rubber, and fur.

Figure 8-2

Textiles and apparel: China's exports, by major markets, 1992 and 1997



1992 = $44.1 million[1]



1997 = $72.4 million[1]

[1] Data include re-exports from Hong Kong.

Source: FAS' Global Agricultural Trade System using data from the United Nations Statistical Office.

U.S.-China Trade

An alternative examination of U.S. imports of textiles and apparel from China using data reported by the U.S. Department of Commerce (DOC) shows similar trends, but provides greater detail regarding the composition of trade in the sector and how it has changed during the 1990s. (The reader should note that the data discussed in this section are not comparable to those shown in table 8-5.)[45] As shown in the following tabulation, U.S. imports of textiles and apparel from China increased by 28 percent over the 1992-98 period, amounting to $7.3 billion in 1998.

(Million dollars)

1992	5,703
1993	6,691
1994	6,471
1995	5,944
1996	6,184
1997	7,562
1998	7,316

With the exception of 1993, when U.S. imports of silk goods accounted for 29 percent of the total value of U.S. textile and apparel imports from China, the share of U.S. imports of silk goods from China has remained fairly steady over the period, amounting to 19 percent in 1998. The remainder of the textile and apparel products are covered by the U.S. quota program.[46] Although the total value of these imports has increased fairly steadily over the period (to $5.9 billion in 1998), import quantities have fluctuated considerably, but remained essentially unchanged, amounting to 1.9 billion square meter equivalents (SMEs) in both 1992 and 1998.[47] This trend provides some indication that Chinese producers have been shifting production to higher value added apparel. Although China was the largest supplier of U.S. textile and apparel imports by quantity during 1992-95, its lack of growth contributed to its being surpassed by NAFTA imports in 1998.

The decline in the quantity of U.S. textile and apparel imports from China during 1994-96 largely reflected tight U.S. quotas. The 3-year bilateral agreement in place at that time froze quotas in 1994 at 1993 levels and allowed for 1-percent annual growth, on an overall trade-weighted basis, in 1995 and 1996. According to U.S. Government and trade sources, textile and apparel imports from China returned to more normal trade levels in 1997, recovering from sluggish U.S. demand in 1996 and uncertainty on the part of U.S. importers over the new bilateral textile agreements that were being negotiated in 1996. The decline in imports of textiles and apparel from China in 1998 is partly attributed to competition from lower-priced sector imports from East Asian nations (Indonesia, Thailand, South Korea, and Malaysia) that had substantially devalued their currencies in 1997.[48] In addition, floods that destroyed many textile factories in South China, as well as efforts by the Chinese Government to restructure the textile industry, may have slowed production and thus reduced sector exports to the United States.[49] Trade sources suggested that the U.S. Government's imposition of triple charges against China's quota allowance in May 1998,[50] because of China's transshipment violations, may also have been responsible for the decline in U.S. imports from China in 1998.[51] Such enforcement measures may have discouraged some U.S. companies from importing textiles and apparel from China. Trade sources also report that Chinese apparel producers had trouble importing fabric from Taiwan and Korea because of the Chinese Government's efforts to control capital outflow and combat smuggling of imported fabrics.[52]

Another factor contributing to China's overall decline[53] in the U.S. apparel market is the growing practice by U.S. importers to source from countries in proximity to the domestic market, namely Mexico, Canada, and the CBERA-beneficiary countries. As competition in the U.S. apparel retail market has intensified, and quick turnaround has grown as a competitive factor, U.S. importers have increased imports from these countries.

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[45] The data in this section include imports of textiles and apparel covered by the U.S. quota program, as well as imports of textiles and apparel made of silk. As noted above, these data exclude apparel made of leather, fur, and rubber.

[46] Specifically, the program covers products made of cotton, wool, manmade fibers, ramie, flax, and silk blends. Although the United States signed a silk agreement with China in 1994 that brought Chinese silk goods under quota for the first time, these quotas were never binding (i.e., the fill rates never exceeded 90 percent). The silk quotas expired at the end of 1997.

[47] U.S. imports from China of products covered by the quota program reached a high of just over 2.1 billion SMEs in 1993, and then declined through 1996 (to a low of 1.6 billion SMEs).

[48] Industry trade consultant, telephone interview with USITC staff, Jan. 22, 1999.

[49] "China/Textile Industry: Everything You Might Possibly Want to Know."

[50] Triple charges are discussed in the United States-China textile agreements section of this chapter.

[51] American Textile Manufacturers Institute, "International Trade," *Textile HiLights*, Sept. 1998. p. v.

[52] "Major Shifts in U.S. Apparel Sourcing in Asia: An Analysis of the Impact of Pricing, Quotas, and Government Regulations," *Pacific Trade Winds* (Santa Barbara, CA), Apr. 1999, p.1.

[53] In terms of value, China's share of the U.S. textile and apparel import market declined from 15.8 percent in 1992 to 11.7 percent in 1998.

Major Products

Of the $7.3 billion of U.S. imports of textiles and apparel from China in 1998, around 77 percent of the value of these imports consisted of apparel and the remainder consisted of other textile products, such as flat goods; luggage; bedspreads, quilts, wool carpets, and other home furnishings; fabrics, primarily cotton printcloth; and yarns, such as cotton/manmade-fiber colored yarns. China exports all types of apparel to the U.S. market, including sweaters, dresses, coats, knit and woven shirts, trousers, playsuits, down coats, women's manmade-fiber suits, and nightwear.[54]

United States-China Textile Agreements

The United States and China reached a series of textile agreements contained in a Memorandum of Understanding (MOU) dated February 1, 1997.[55] Among these agreements, which were negotiated under section 204 of the Agricultural Act of 1956, one extended U.S. quotas on imports from China of textiles and apparel of cotton, wool, manmade fibers, other vegetable fibers such as linen and ramie, and silk blends for 4 years through December 31, 2000 (hereafter the textile agreement). This agreement reduced quotas for products in which China had repeatedly violated quotas by transshipping through third countries, strengthened enforcement terms against illegal transshipments, and, similar to the 1994 agreement,[56] allowed the United States to "triple charge" quotas for repeated violations of the agreement.[57] A second agreement involved a visa arrangement,[58] and a third agreement extended U.S. quotas on Chinese apparel containing 70 percent or more by weight of silk for an additional year to December 31, 1997, when they were allowed to expire.

The current textile agreement with China, as in previous agreements negotiated under the former Multifiber Arrangement (MFA),[59] contains provisions for a safeguard mechanism. The United States may request consultations with China if the United States believes that imports of Chinese textile and apparel products not subject to specific limits are, due to market disruption, threatening to impede the orderly development of trade between the two countries.[60] The U.S. Government must provide the Government of China with a detailed factual statement of reasons and justification for each request for consultations, including current data that show the existence or threat of market disruption and the role imports from China have in that disruption. A *restraint limit* is placed on the subject imports from China at the same time the United States requests consultations. If the two countries cannot agree on a quota level during the consultation period, the United States may continue the limit until the end of the agreement period.

As part of the current bilateral agreements reached with China, the United States agreed that should China become a member of the WTO, it would immediately receive the same benefits on the same schedule accorded other WTO textile-exporting countries under the ATC. As such, quotas on imports of textiles and

[54] The largest single categories of imports from China in 1998 were sweaters of non-cotton vegetable fibers and manmade-fiber flat goods, (e.g., wallets and key cases), each of which accounted for 6 percent of the total value of U.S. imports of textiles and apparel that year.

[55] On February 1, 1997, the United States and China initialed the MOU, which both countries are implementing. The MOU is binding on both countries; it will be formalized into an agreement through an exchange of notes. The United States delivered its note on March 11, 1997; however, the note had not been reciprocated by the Chinese, pending the reduction of certain Chinese tariffs, which was announced on January 1, 1999. On January 22, 1999, China's Ministry of Foreign Trade and Economic Cooperation notified the U.S. Embassy in Beijing that it was ready to exchange diplomatic notes to formalize the agreements contained in the MOU. See U.S. Department of State telegram No. 000799, "China Ready to Exchange Notes on Textile Agreement," prepared by U.S. Embassy Beijing, Jan. 26, 1999.

[56] The 1994 agreement is discussed in the United States-China trade section of this chapter.

[57] In May 1998, the Committee for the Implementation of Textile Agreements (CITA) announced that triple charges would be assessed against certain of China's quotas for illegal transshipments (i.e., "the United States may charge three times the amounts transshipped to China's negotiated quantitative limits ..."). For further information, see CITA, "New Transshipment Charges for Certain Cotton and Man-Made Fiber Textile Products Produced or Manufactured in the People's Republic of China," *Federal Register* (63 F.R. 25202), May 5, 1998, p. 25202.

[58] The United States requires visas for textiles and apparel from China and many other countries (the United States agreed to China's request to eliminate visa requirements for silk goods effective as of January 1, 1999). Issued by the quota regulatory authority of the country in which the goods originate, a visa is a stamp on a paper document that certifies the origin of the goods, specifies the product type and quantity, and authorizes the shipment. The U.S. Customs Service, which is implementing electronic visas with several countries, uses the information to charge imports against quotas and to help eliminate unlawful transshipments.

[59] On Jan. 1, 1995, the Agreement on Textiles and Clothing (ATC) entered into force as part of the WTO agreements and replaced the MFA.

[60] The consultation mechanism described here is found in Paragraph 8, subparagraph (A) of the current U.S.-China bilateral textile agreement.

apparel from China, as well as all other WTO countries, would be completely phased out on January 1, 2005. However, the present agreement with China states that if China accedes to the WTO, the consultation mechanism described above will be in effect for 4 additional years beyond the termination of textile quotas for WTO countries–that is, from January 1, 2005 to December 31, 2008.[61] The United States-China agreement also states that no action taken under the consultation mechanism during the four-year period will remain in effect beyond one year, without re-application, unless both countries agree.

Quotas and Quota Utilization Rates

The bilateral textile agreement with China contains group and specific limits, or quotas, with respect to the type and volume of textile articles that China can export to the United States. Under the agreement, the 147 individual product categories used by the United States to administer the textile quota program[62] are essentially divided into four broad groups of textile articles, with an overall quota assigned to each group.[63] Textile articles in each group are subject either to specific limits or to the consultation provisions discussed above. Currently, there are 101 specific limits covering imports of textile articles from China, and they apply to individual product categories, subsets of product categories, and combined product categories.[64] A few articles are not subject to any of the group limits in the textile agreement with China, but are subject to specific limits (certain shop towels and fabric luggage) or the consultation provisions (miscellaneous items for which there were no imports from China in 1997 or 1998).

In the textile agreement with China, almost all articles subject to specific limits are included in group I and those not subject to specific limits, as well as a few articles subject to specific limits, are included in the other three groups, depending on the product type and principal fiber. The overall quota for group I accounted for 77 percent of the total volume of China's allowable quotas in 1997. Group II accounted for 7 percent of the allowable quotas, and group III, 14 percent; these two groups cover cotton, wool, and manmade-fiber apparel and non-apparel articles, respectively. Group IV accounted for less than 1 percent of China's allowable quotas, and covers apparel of silk blends and non-cotton vegetable fibers. About 2 percent of China's allowable quotas in 1997 consisted of textile articles that are subject to specific limits but not a group limit.

The textile agreement with China contains "flexibility provisions" that allow, under certain conditions, for the transfer of unused portions of quotas between products and between years.[65] The agreement also provides annual growth of group and specific limits. The group limits are to be increased by 1 percent a year for groups I, II, and III, and by 2 percent a year for group IV. The annual growth rates for specific limits range from a low of 0.1 percent for wool sweaters for men and women to a high of 4.1 percent for gloves and mittens of silk blends and non-cotton vegetable fibers. According to one trade source, the average annual quota base growth rate for China under the current bilateral textile agreement, which covers the years 1997 to 2000, is 1.3 percent for apparel and 2.0 percent for made-up textiles, such as towels, table cloths, curtains, and other home furnishings.[66]

During 1994-98, China filled most of its quota group limits by 95 to 100 percent. Two exceptions were in 1996, when China filled its Group III quota by

[61] See Paragraph 8, subparagraph (F) of the current agreement.

[62] To administer the U.S. textile quota program, textile articles are grouped under 3-digit category numbers, which cover several thousand 10-digit statistical item numbers under which merchandise is classified for statistical purposes in the Harmonized Tariff Schedule of the United States (HTS). Of the 147 quota categories, 11 are for yarn, 34 for fabric, 86 for apparel, and 16 for made-up and miscellaneous textiles.

[63] Group limits are set in terms of square meters equivalent (SMEs) and specific limits are set in terms of the "individual category unit of measure" (e.g., kilograms for yarns, square meters for most fabrics, and dozens for most apparel articles). To aggregate textile articles with different units of measure, a conversion factor is assigned to each 3-digit category number to convert the category units of measure into SMEs.

[64] For example, cotton trousers for men and women are subject to a combined quota (base quota of 2,341,850 dozen in 1998), whereas separate quotas exist for wool trousers for men (70,265 dozen) and women (22,167 dozen) and manmade-fiber trousers for men (1,555,261 dozen) and women (1,111,223 dozen).

[65] The flexibility provisions for unused portions of quotas include carryover (from the prior year to the current year within the same product category), carryforward (from the subsequent year to the current year within the same product category), and swing (from one product category to another product category within the same year).

[66] National Retail Federation (NRF), "Assessment of the Economic Effects on the United States of China's Accession to the WTO, USITC Investigation No. 332-403," Mar. 12, 1999, p. 5. The NRF calculated the average annual quota growth rates on a quota-weighted basis, using the base quota growth rates negotiated in the 1997 bilateral textile agreement for each product category. The quota growth rates discussed above calculated by NRF do not include any allowance for the acceleration of quota growth rates as provided for under the ATC. See footnotes 74 and 88 for information on accelerated quota growth rates.

only 78 percent, and in 1998, when China filled its Group I limit by 90 percent.

Transshipment

The U.S. Customs Service (Customs) recognizes the transshipment "problem" and has established a national strategy to combat illegal transshipment.[67] Illegal transshipment of textiles and apparel occurs when there is a false declaration on imported merchandise as to the country of origin in order to circumvent U.S. quotas and U.S. trade laws and admissibility requirements. Customs' report to the U.S. Congress on transshipment emphasized the difficulty in combating transshipments when it stated that "transshipment has become an economically viable solution in those countries where factories can and do produce more than they can legally ship to these markets because of quantity restraints. Transshipment is a difficult problem to attack because Customs is trying to investigate in a foreign country where there are efforts to keep factories open and generate income through exports, despite quota restraints."[68] Since 1990, Customs has identified cases of transshipment in 75 countries, territories, and insular possessions.[69] The value of textile and apparel products affected by these cases totaled $736.8 million.

During 1997, Customs focused its efforts on Chinese textile and apparel products transshipped through Hong Kong and Macau. One action Customs took concerning transshipment in these countries is the publishing in 1997 of the names of 30 Hong Kong factories, which had been convicted by Hong Kong courts, and 14 Macau factories, which had been assessed penalties by the Government of Macau.[70] In most cases, importers can still do business with the companies on the published lists. The lists alert importers and retailers to which companies have been convicted of illegal transshipment, so that importers and retailers can avoid doing business with these companies, be prepared to complete extra documentation, or have their shipments be subject to more careful inspection.

Customs also works in conjunction with foreign governments. In one such operation in 1997, Hong Kong Customs and Excise conducted 2,248 factory visits.[71] Agents uncovered 179 illegal transshipment cases involving textile and apparel products destined for the U.S. market as a result of these visits. These cases are currently being investigated and processed through the Hong Kong courts. Customs published the names of 28 of these factories where transshipments have been substantiated and will continue to publish additional names as these cases continue to be processed through the Hong Kong courts.[72] (U.S. Government officials emphasized that the value of transshipment and the number of cases cited by Customs represent only a small portion of the incidence of transshipment that is allegedly occurring.)

WTO Textile Agreement

World trade in textiles and apparel had been largely governed by the terms of the 1974 MFA and predecessor arrangements, which permitted the use of quotas without requiring compensation, contrary to the general prohibition against quotas under the General Agreement on Tariffs and Trade (GATT). On January 1, 1995, the ATC entered into force and replaced the MFA. The ATC provides for the elimination of the quotas and the complete integration of textiles and apparel into the WTO regime–that is, the sector will be subject to WTO disciplines and the same rules as other sectors–over a 10-year transition period ending on January 1, 2005.[73] All WTO countries are subject to ATC disciplines, and only WTO countries are eligible for ATC benefits.

Under the ATC, quotas will be eliminated through two mechanisms: (1) the integration of products into the WTO regime, including the elimination of quotas on those products, and (2) the acceleration of growth rates for expanding quotas still in effect during the transition period on products not yet incorporated into the WTO regime. Under the ATC, WTO members integrated 16 percent of their textile and apparel trade (based on their respective 1990 import volumes) into the WTO regime on January 1, 1995, and 17 percent more on January 1, 1998. The ATC requires countries to integrate another 18 percent of the trade in 2002 and the remaining 49 percent on January 1, 2005. In the near term, product integration has limited effects on the

[67] U.S. Customs Service, Department of Treasury, "Textile Transshipment Report Submitted to Congress on March 10, 1998," memorandum to all Port Directors, Customs Management Center (CMC) Directors and Strategic Trade Center (STC) Directors, Mar. 20, 1998, p. 2.

[68] Ibid., p. 4.

[69] This statement refers to all verified cases of transshipment and not only those involving China.

[70] "Textile Transshipment Report Submitted to Congress on March 10, 1998," p. 7.

[71] Ibid., p. 10.

[72] Section 333 of the Uruguay Round Agreements Act (URAA) (Public Law 103-465, 108 Stat. 4809) authorizes Customs to publish biannually in the *Federal Register* lists of firms which are involved in illegal transshipping.

[73] WTO members imposing quotas are the United States, the EU, Canada, and Norway.

U.S. textile and apparel industries because most import-sensitive goods covered by the ATC will remain under quota throughout the transition period, but in the longer term the ATC is expected to have a significant effect on the industry as all quotas for WTO countries are removed.

The acceleration of quota growth rates under the ATC is likely to affect U.S. import levels sooner than product integration. For products remaining under quota during the transition period, the ATC requires importing countries to increase the quota growth rates for major supplying countries by 16 percent on January 1, 1995; by an additional 25 percent on January 1, 1998; and by another 27 percent on January 1, 2002.[74] For small suppliers (i.e., countries accounting for 1.2 percent or less of an importing country's total quotas in 1991), quota growth rates were advanced by one stage–that is, they were increased by 25 percent in 1995 and by 27 percent in 1998.

During the transition period, the ATC allows WTO members to set new quotas on imports of articles not yet integrated into the WTO regime by applying a "transitional safeguard" when imports cause or threaten serious damage to a domestic industry. These quotas may remain in place for up to 3 years during the transition period or until the item is integrated into the WTO regime. The United States has initiated more ATC safeguard actions than any other country, with 28 actions in 1995, but only 9 during the 1996-98 period.[75] Most of these actions involved apparel.

Comparison of China's Trade with ATC quota growth rates to other WTO suppliers

As an illustration of how China's exports of a particular apparel category would grow if China's quota growth rates were to increase at the same rate as other WTO members[76] (that is, if China were to accede to the WTO), Commission staff applied the quota growth rate mechanism outlined in the ATC to China's annual quota growth rates provided for in the United States-China textile agreement and compared the resulting import trends with those of other WTO members. As shown in figures 8-3 and 8-4, China's shipments of many products to the United States are likely to continue to be constrained by quotas even if the accelerated quota growth rates of the ATC are applied. Other WTO members such as countries in South Asia, which have higher base quota growth rates than China, have an advantage over China when the quota growth rate mechanism of the ATC is applied.

Commission staff selected two groups of products. The first group consists of men's woven cotton and manmade-fiber shirts (categories 340 and 640). These shirts generally are commodity products for which there is significant trade. Both types of shirts are produced by both large and small suppliers, as defined in the ATC. China has minimal base annual quota growth rates of 0.5 percent for category 640 and 0.75 percent for category 340, which are representative of the annual growth rates for most apparel products in the United States-China textile agreement. The second product group, consisting of playsuits (category 237), was selected in order to analyze the effects of the quota growth rate mechanism on products from China that have higher annual quota growth rates, in this case, an annual quota growth rate of 3 percent.

Figure 8-3[77] provides a comparison of the quotas with the applied growth rates provided for in the ATC on men's woven shirts[78] from China to the adjusted

[74] The acceleration of quota growth rates is based on the rates specified in the bilateral MFA agreements in place on Dec. 31, 1994. The base rates by which the quotas could grow annually vary by country and product, but usually ranged from less than 1 percent to 6 percent; some countries had base rates of 7 percent. Assuming a base rate for a major supplier of 6 percent, the annual quota growth rate would be 6.96 percent in stage one (1995-97), 8.7 percent in stage two (1998-2001), and 11.05 percent in stage three (2002-04).

[75] The three calls (i.e., safeguard actions) in 1998 were down from the four calls issued in 1997. In 1995, the first year of the ATC, the United States initiated 28 calls, 15 of which were rescinded.

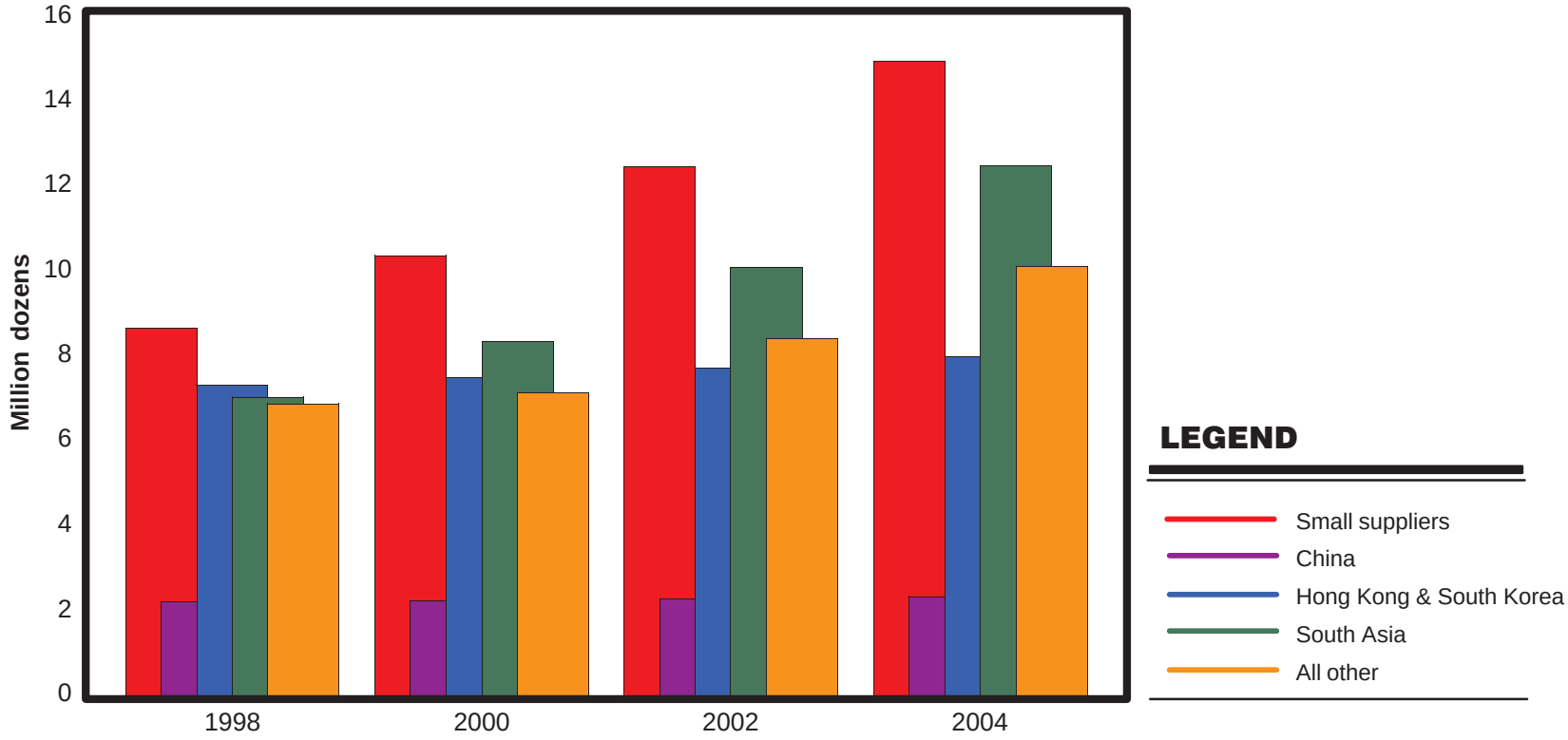
[76] Increasing China's quota growth rates at the same rate as other WTO members indicates that the application of the ATC quota growth rate mechanism on China's quota growth rates would be retroactive to 1995.

[77] To make this comparison, the various countries' quota growth rates were accelerated as provided for in the ATC and described as follows. The l995 growth rate for combined categories 340 and 640 stated in the United States-China textile agreement was increased by 16 percent for the first stage–1995-97. This increased growth rate was then increased by 25 percent for the second stage (1998-2001); and this further increased growth rate was increased again in the third stage (2002-04) by 27 percent. (Normally, the 1994 growth rate would be used as the base quota growth rate; however, no growth was granted for men's woven dress shirt product categories in 1994 in the United States-China textile agreement that was in effect at that time.) This same process was applied to the 1994 annual growth rates stated in the bilateral textile agreements negotiated with other WTO suppliers, where possible. In instances where the United States did not have an agreement with the supplier country (e.g., Egypt), base growth rates from subsequent years were applied.

[78] Quota categories 340 and 640 combined.

Figure 8-3

Men's woven shirts of cotton and manmade fibers (categories 340/640): U.S. quota access levels for China assuming WTO quota growth rates compared with quota access levels for other WTO members, 1998-2004

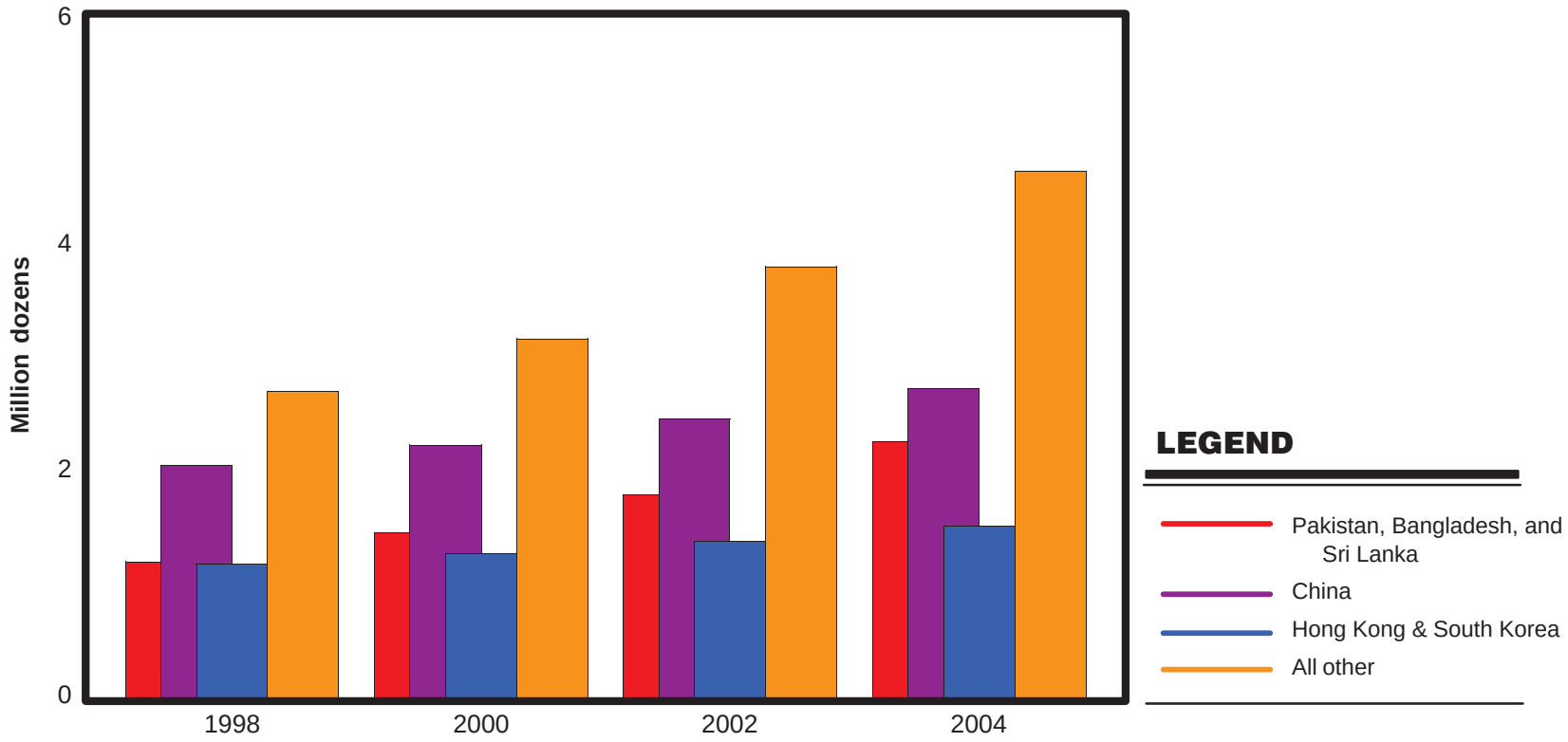


Note.—"South Asia" includes India, Bangladesh, Sri Lanka, and Pakistan. "All other" includes Turkey, Indonesia, Malaysia, Phillipines, Singapore, and Thailand. "Small suppliers" includes Egypt, Guatemala, Costa Rica, Dominican Republic, Mauritius, Jamaica, Kenya, Qatar, United Arab Emirates, Bahrain, Kuwait, Macau, and Romania.

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

Figure 8-4

Playsuits (categories 237): U.S. quota access levels for China assuming WTO quota growth rates compared with quota access levels for other WTO members, 1998-2004



Note.—"All other" includes Philippines, Malaysia, Mauritius, and Singapore.

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

quotas on imports of the shirts from South Asia, Hong Kong and South Korea, WTO members designated as small suppliers, and all other affected WTO suppliers. The figure illustrates that even accounting for the acceleration of the base quota growth rates by 16 percent in 1995, 25 percent in 1998, and 27 percent in 2002, permissible import levels for shirts from China will increase slowly (6 percent during 1998-2004). Similarly, permissible import levels for Hong Kong and South Korea also exhibit slow growth. In contrast, the other regional groups are permitted relatively rapid growth, with the growth in quota levels for the small suppliers amounting to 73 percent during 1998-2004, and for South Asia and all other suppliers by 78 and 47 percent, respectively (figure 8-3).

A comparison of the trends of the U.S. base quota access levels for China's exports of men's shirts (figure 8-3) and playsuits (figure 8-4) illustrates that the quota base rates applied to playsuits will increase at a faster rate than those applied to men's shirts when the accelerated growth rates provided in the ATC are applied. This is because the base annual quota growth rate for the playsuits is higher than those for shirts (3 percent versus 0.5 percent and 0.75 percent). However, figure 8-4 also illustrates that when the growth rates specified in the ATC are applied to the quota base level of imported playsuits from the other WTO suppliers, China's share of the total quota access level drops from around 29 percent in 1998 to roughly 25 percent in 2004.

As these figures demonstrate, during the next five and a half years when quotas are being phased out, China's access to the U.S. market for textiles and apparel will increase only slightly as a result of its WTO accession. In addition, the current United States-China textile agreement states that if China accedes to the WTO, the consultation mechanism provided in the agreement will remain in affect for 4 additional years beyond the termination of textile quotas for WTO countries.[79]

The United States Association of Importers of Textiles and Apparel stated in their submission to the Commission that because the United States-China bilateral textile agreement has an annual average growth rate of less than 1 percent, the "growth-on-growth"[80] provisions of the ATC would not result in "appreciably larger quota levels for China."[81] The National Retail Federation (NRF) supported this view in their statement to the Commission.[82] The NRF wrote that the application of the ATC's accelerated quota-growth provisions to imports from China upon China's accession to the WTO would not "significantly expand China's access to the U.S. market" or cause "disadvantage to U.S. producers or other foreign suppliers" because China's average quota-weighted base growth rate for apparel is only 1.33 percent, based on growth rates established in the bilateral agreement in 1997, and the rate for textile made-ups is only 2.0 percent. Increasing these annual growth rates according to the growth rate provisions of the ATC would result in growth rates that "hardly permit massive increases in U.S. apparel and textile made-up imports from China." They emphasized that China should be allowed to join the quota phase-out in progress.

The American Apparel Manufacturers Association (AAMA) submission to USTR concerning the accession of China to the WTO supported the view that should China accede to the WTO, its textile and apparel imports should be integrated on the same schedule as those of other WTO members.[83] The AAMA's submission emphasizes that this view is consistent with the 1997 United States-China MOU which provides for the integration of China's trade at the same schedule as current WTO members. The AAMA believes that extending the quota integration and growth processes after other WTO members would be finished would be "an invitation for transshipment."

The American Textile Manufactures Institute (ATMI) testified at the Commission's hearing that China's accession to the WTO should be conditional on China's liberalization of its own trade regime. ATMI stated that with China's accession, China's exports of textiles and apparel should not be allowed quota-free entry as of January 1, 2005, but rather accession should be accompanied by a 10-year phase-out period for its

[79] For more information on the continuation of the consultation mechanism provided for in the United States-China agreement see the United States-China textile agreement section of this chapter.

[80] This reference to the "growth-on-growth" provisions refers to the quota growth rate provisions of the ATC.

[81] Statement of the United States Association of Importers of Textiles and Apparel on the Effect of Removal of Quotas on Textiles and Apparel with China as a Member of the WTO, "Assessment of the Economic Effects on the United States of China's Accession to the WTO," USITC investigation No. 332-403, Feb. 24, 1999, p. 6.

[82] Statement of the National Retail Federation, "Assessment of the Economic Effects on the United States of China's Accession to the WTO," USITC investigation No. 332-403, Mar. 12, 1999, p. 5.

[83] Letter to The Honorable Charlene Barshefsky, U.S. Trade Representative, from the AAMA, Mar. 21, 1999, pp. 1-2, and faxed to Commission staff in conjunction with USITC investigation No. 332-403, Apr. 13, 1999.

textile and apparel quotas from the date of its accession to the WTO.[84]

Impact of the phase-out of Textile and Apparel quotas on the U.S. Economy with China's inclusion in the ATC

This part of the chapter uses formal modeling to provide a quantitative assessment of the effects of the phase-out of textile and apparel quotas as specified under the ATC under the assumption that China is a member of the WTO. This assessment is done at the aggregate and not at the commodity or quota category level.

As noted earlier in the chapter, the textile and apparel quotas are being phased out over a 10-year period, with full elimination of quota restrictions on WTO members occurring on January 1, 2005. In order to account for the differences in the rates of growth allowed for different countries during the phase-out period, the Commission used a multi-period version of the China-WTO model. The model's database was first updated to 1998.[85] The model was then run through 2010, with the base data adjusted to reflect annual quota growth rates and projected GDP growth. The model updates various factors of production in each time period, while at the same time it allows markets to adjust, as is done in the single-period model.[86] Limitations associated with this updating process and the impact of these limitations on the simulation results are discussed more fully below.

The quantitative assessment presented below does not account for the tariff reductions included in the April 1999 offer or any changes in the non-tariff barriers that China imposes on its imports of goods and services. As a result, the analysis does not present a complete assessment of what would likely occur if China were to join the WTO. Rather, the analysis is designed to show only the potential impact of China's participation in the ATC's quota phase-out.

Simulation Design

In the single-period model analysis, comparisons were made between the initial representative base and an alternative state where China reduces its tariffs. In the analysis presented in this section, it was necessary to produce a *projected* base that represents the phased elimination of textile and apparel quotas for WTO members. In this simulation, the quotas imposed on imports from China and other non-WTO members are assumed to remain in place. The alternative projection assumes that China joins the WTO and the quotas placed on its textile and apparel exports are phased out in accordance with the ATC. The difference between these two projections provides an estimate of the potential effects on the U.S. economy of removal of the quotas on China's textile and apparel exports to the United States, the European Union (EU), Canada, and Norway. In scenario I (China excluded from the ATC), world economic growth with the implementation of Uruguay Round trade liberalization is simulated without China's participation.[87] Because China is excluded from the WTO under this scenario, its exports of textiles and clothing to the United States would remain subject to quotas that would grow at their current rate of approximately 1 percent. The Commission assumed that these restrictions would continue after January 1, 2005. WTO members that are subject to quotas are allowed accelerated textile and apparel quota growth, with the remaining quotas eliminated on January 1, 2005. As discussed earlier in this chapter, for textile and apparel articles still under quota during the 10-year transition period, the ATC

[84] Statement of Mr. Charles V. Bremer, Director, International Trade, on behalf of The American Textile Manufacturers Institute to the U.S. International Trade Commission, "Assessment of the Economic Effects on the United States of China's Accession to the WTO, USITC investigation No. 332-403, Feb. 23, 1999, pp. 3 and 5.

[85] This updating procedure is described in more detail below and in appendix D. As in the simulations conducted using the single-period model, the 1995 GTAP database is first updated to 1998. The updating process consists of employing actual macroeconomic data for total trade, GDP, government spending, and investment and balancing the remaining variables to facilitate simulations of policy shocks such as tariff cuts or quota removal.

[86] Appendix D provides a detailed description of the inter-period linkage component of the China-WTO model.

[87] To calibrate the baseline scenario, real GDP growth rate, gross investment, government spending, and balance of trade as a percentage of real GDP are imposed exogenously based on data from International Monetary Fund, *World Economic Outlook* (Washington, DC, 1998), and "The Oxford World Macroeconomic Model, An Overview," Oxford Economic Forecasting, Abbey House, Oxford U.K., Jan. 1999. The percentage reductions in import protection rates by sector and by region agreed to in the Uruguay Round are provided by Joseph F. Francois, Bradley McDonald, and Håkan Nordström, "Assessing the Uruguay Round," in Will Martin and Alan Winters (eds.), *The Uruguay Round and the Developing Economies*, World Bank Discussion Paper 307, 1995, Washington, DC; and Joseph Francois and Anna Strutt, "Post Uruguay Round Tariff Vectors for GTAP Version 4," Erasmus University Rotterdam, Jan. 1999. The reductions are implemented over time (6 years for developed countries and 10 years for developing countries); a linear formula was used to calculate the reductions in each simulation period.

required importing countries to increase the base quota growth rates for major WTO-member suppliers by 16 percent on January 1, 1995; by an additional 25 percent on January 1, 1998; and by another 27 percent in 2002. The quota growth rates for WTO exporter countries that are used in both scenarios are calculated from data provided by the International Textiles and Clothing Bureau (ITCB).[88]

In scenario II (China included in the ATC), Commission staff assumed that China receives the same quota phase-out benefits as other major WTO textile-exporting countries under the ATC. This means China would gain back all its quota growth from 1995 and no quantitative restrictions would be applied to China's textile and apparel products on or after January 1, 2005. The simulations are conducted for the 1998-2010 period in order to capture the lag and economic adjustment in response to the quota phase-out.

For each of the two scenarios, the model generates results regarding the effects on real consumption, wage rates, terms of trade, the volume of trade, output, and changes in prices and resource allocation on a region/country basis. The difference in the results generated by the two simulations provides an estimate of the impact of China's inclusion in the quota phase-out specified by the ATC on the U.S. economy. The estimates should be regarded as outcomes from conditional projections rather than as forecasts. As noted above, for a complex set of policy changes such as the ATC quota phase-out, this multi-period modeling approach seems to be the most appropriate. However, it introduces specific data and model limitations and their impact on the results generated by this analysis are discussed in the following section.

Data and Model Limitations

As noted earlier, the China-WTO model's starting 1995 database was adjusted to reflect macroeconomic growth and changes in production and bilateral trade flows arising from various trade policy changes. However, several factors affect the direction and magnitude of these estimates. First, the initial 1995 levels of U.S. production of textiles and apparel and, thus, domestic sales of these products are overstated in the GTAP version 4 database. Second, some of the shift in U.S. production to other NAFTA countries and beneficiary countries under the CBERA that occurred after 1995 could not be captured in the database updating process.[89] This second factor also causes U.S. production, domestic sales, and employment levels to be overstated throughout the period.[90] Finally, the simulations reflect the assumption that the purchasers' willingness to substitute imports for domestic production remains constant throughout the 12-year period. This may not be the case. For example, if domestic producers were to shift production to specialized subsectors, imports could become less viable substitutes and, as a result, purchasers would be less responsive to changes in import prices.

For changes in domestic production and employment, the direction, as well as the magnitude of the bias associated with these data limitations and behavioral assumptions is unclear. Changes in U.S. imports of textiles and apparel generated by the model

[88] The ITCB database used in the current analysis is comprehensive in that it covers all countries which have quotas on their textile and apparel exports to the United States, Canada, the EU, and Norway. The base quotas and quota growth rates were collected from these countries' notifications of existing quotas to the WTO's newly created Textile Monitoring Board (TMB). The ITCB calculated the overall quota growth between 1994 and 2004 for all countries, including China, by applying the above mentioned accelerated growth rates of the ATC. However, the ITCB's figures did not account for U.S. group limits, thus overstating the amount of growth China would be permitted during the phase-out period. As explained above, these limits permit only one percent growth per year for the vast majority of China's exports to the United States. Therefore, during the phase out period, China's growth would be held below the levels calculated by the ITCB as a result of these group limits.

[89] Since actual data for global bilateral trade are not available, bilateral trade flows are endogenously determined when the database is updated and may not reflect actual trade flows. Also, updating does not necessarily account for changes in technology during the period that may influence trade and production trends. Nor does it account for exchange rate changes, since quantities in CGE models are represented in real and not in nominal terms. Therefore, exchange rate changes that influenced trade shares (for example, Mexico in the mid 1990s) are not considered by this model (or any other CGE model) during the updating phase of the simulation. In the ITC study concerning the impact of NAFTA on U.S. imports from Mexico, the econometric analysis indicated that exchange rates were, in the short run, more influential than NAFTA policy changes in determining the level of U.S. imports from Mexico. See USITC, *The Impact of the North American Free Trade Agreement on the U.S. Economy and Industries: A Three -Year Review*, USITC Publication 3045, June 1997.These limitations in the updating process lead to a divergence in the share of U.S. imports shown in the updated 1998 database versus actual U.S. import shares for some countries. For example, the share of U.S. imports of textiles and apparel accounted for by Mexico amounts to around 6 percent in the model's database versus approximately 13 percent according to U.S. DOC data.

[90] As shown in table 8-1, U.S. shipments of textile mill products (SIC 22) and apparel and other textile products (SIC 23) grew slowly during 1993-98. At the same time, employment in both sectors has declined steadily. Assuming that this trend continues, any declines in U.S. employment precipitated by China's WTO accession would apply to a smaller base.

are likely to be overstated, but by an unknown amount. The uncertainty surrounding these estimates pertaining to U.S. textile and apparel production, employment, and trade led the Commission to not report these model-based results. Therefore, the discussion in the section below on the impact of the ATC quota phase-out on U.S. textile and apparel trade, production, and employment focuses on general trends suggested by the model simulations. Estimates of economy-wide effects, changes in import market shares, and effects pertaining to other sectors of the economy, however, are likely to be far less affected by these limitations and are presented below.

Major Findings[91]

The simulation results suggest that the overall impact on the U.S. economy of China's participation in the ATC would be positive. Economy-wide welfare gains could amount to about $2.4 billion in 2006, while GDP could increase by about $1.9 billion.

The results also suggest that much of China's increased exports to both the U.S. market and the world would be at the expense of other country suppliers. For example, under scenario I, China's share of the U.S. import market could decline slightly. With inclusion in the ATC (scenario II), China's share could increase by about 18 percentage points when the quotas are eliminated in 2005. In contrast, the respective shares of other regional suppliers decline.

As noted above, certain data limitations prevented the Commission from providing estimates of changes in U.S. textile and apparel production, employment, imports, and exports. However, the simulation results suggest that both the U.S. textile and apparel industries will experience declines in domestic shipments and employment as a result of China's inclusion in the ATC. The impact on the U.S. apparel industry is likely to be more significant than that on the U.S. textile industry, largely as a result of differences in the degree of protection afforded the two industries by U.S. quotas. Because the accelerated quota growth rates for China for many of the U.S. textile and apparel quota categories are low, the adverse effects are likely to be experienced after the end of the phase-out period (i.e., after December 31, 2004).

[91] As noted above, although the results discussed below provide an indication of the potential impact of China's inclusion in the ATC's quota phase-out, the simulations were not designed to capture the full impact of China's accession on the U.S. economy. The simulations do not include any reductions in China's tariffs or any changes in the restrictiveness of NTBs that China imposes on its imports of goods and/or services. The policy changes set forth in the April 1999 offer would likely have an impact on the magnitude of results shown below.

Aggregate Effects

As shown in table 8-6, the impact of China's WTO accession on the U.S. economy would be relatively small prior to the elimination of the quotas in 2005. However, the elimination of quotas in 2005 could generate an increase in U.S. real GDP of $1.9 billion in 2006 and an economy-wide welfare gain of roughly $2.4 billion. These changes reflect the elimination of the quotas in 2005 and occur primarily as a result of efficiency gains from factor reallocation in the U.S. economy. Total U.S. exports (i.e., all merchandise products) to the world would potentially increase by about $2.5 billion in 2006, while total imports from the world could increase by about $7 billion. The impact on the average U.S. wages of both unskilled and skilled labor would be negligible.[92] Quota elimination also would have a positive impact on China's economy. China's real GDP could increase by about $6.5 billion in 2006, with slightly larger gains occurring during the remainder of the period. The economy-wide welfare gain realized by China could amount to around $5.8 billion in 2006. China's total exports and total imports would also likely increase substantially in 2006.

Empirical evidence[93] suggests that there may be strong positive feedback between trade expansion and productivity growth, especially technology transfer via exports of capital and intermediate goods from industrial countries such as the United States. In this analysis, as quota elimination allows China to expand its textile and apparel exports to the world market, it likely will import more capital and technology intensive goods as both investment and intermediate inputs. As shown in the last column of table 8-7, the results suggest that the elimination of textile and apparel quotas would result in China importing more than $2 billion in additional machinery and equipment a year after January 1, 2005, from the international market. Growth in imported technology from industrial countries would likely stimulate productivity growth for all factors of production. The simulation results suggest that the quota phase-out would accelerate growth in China's total factor productivity (TFP), especially for its manufacturing

[92] The average wages of unskilled and skilled labor in China could increase as a result of the elimination of the quotas in 2005, but the gains are less than one percent.

[93] The increased productivity experienced by developing countries due to increased imports of capital equipment has been documented empirically. See Xiaoming Zhang and Heng-fu Zou, "Foreign Technology Imports and Economic Growth in Developing Countries," World Bank Policy Research Working Paper No. 1412 (Washington DC: World Bank, September 1995), and Hadi Salehi Esfahani, "Exports, Imports, and Economic Growth in Semi-Industrialized Countries," *Journal of Development Economics*, vol. 35 (1991), pp. 93-116.

Table 8-6
Aggregate results from the phase-out of textile and apparel quotas, 2000-10
Billion of 1998 US dollars

	Real GDP		Welfare[1]		Total exports[1, 2]		Total imports[1,3]	
Year	United States	China	United States	China	United States	China	United States[4]	China
2000	0.1	0.3	0.1	0.2	0.1	0.4	0.2	0.3
2002	0.1	0.3	0.1	0.3	0.1	0.4	0.2	0.3
2004	0.1	0.4	0.1	0.3	0.1	0.4	0.2	0.4
2006	1.9	6.5	2.4	5.8	2.5	16.6	7.0	10.9
2008	1.7	7.4	2.1	6.7	2.4	15.5	6.1	10.3
2010	1.7	9.2	2.1	8.4	2.4	16.3	6.1	10.9

[1] The welfare and trade estimates shown below reflect the difference between the base simulation (scenario I) and the inclusion of China in the ATC (scenario II) in terms of total welfare or trade changes from the 1998 base period. Therefore, the results are not additive.
[2] Includes exports of all merchandise products to the world.
[3] Includes imports of all merchandise products from the world.
[4] Because of data limitations that are discussed above, the estimated changes in U.S. imports may be overstated.
Source: Based on USITC staff estimates.

Table 8-7
Changes in China's machinery imports from the quota phase-out, 2000-10
Million of 1998 US dollars

Year	Motor vehicles and parts	Other transport equipment	Electronic equipment	Other machinery	Total
2000	10	10	10	50	80
2002	10	0	10	60	80
2004	10	0	0	60	70
2006	230	190	190	1,730	2,340
2008	190	180	190	1,630	2,190
2010	190	190	200	1,710	2,290

Source: Based on USITC staff estimates.

sectors. Results from the model indicate, for example, that the TFP growth rate in China's chemical, other machinery, electronics, motor vehicle, and steel industries would accelerate by 0.4, 0.4, 0.3, 0.2, and 0.2 percent, respectively.

Impact on Net Trade Patterns

Table 8-8 reports the estimated changes in net exports of capital-intensive, labor-intensive, and agricultural products for both the United States and China during the simulation period due to the phase-out of quotas on China's textile and apparel exports. Joining the WTO, especially when industrial countries eliminate quota restrictions on imports of labor-intensive manufactures such as apparel and other textile-related consumer goods from China, would further realize China's comparative advantage in producing such goods and increase its net exports. The expansion of China's production of labor-intensive manufactures would cause resources to be bid away from farming and drive up demand for agricultural and capital/technology-intensive goods. This would

Table 8-8
Change in net exports from the quota phase-out, 2000-10
Billion of 1998 US dollars

	United States			China		
Year	Capital intensive	Labor intensive	Agriculture and food	Capital intensive	Labor intensive	Agriculture and food
2000	0.1	-0.2	([1])	-0.2	0.4	-0.1
2002	0.1	-0.2	([1])	-0.2	0.4	-0.1
2004	0.1	-0.2	([1])	-0.2	0.4	-0.1
2006	2.2	-3.8	0.5	-6.2	12.8	-2.0
2008	2.0	-3.4	0.6	-5.7	11.9	-2.0
2010	2.0	-3.5	0.6	-5.9	12.6	-2.2

[1] Less than $50 million.

Source: Based on USITC staff estimates.

increase China's net agricultural and capital/technology intensive imports. The opposite impact would occur for the U.S. economy. As shown in table 8-8, the termination of textile and apparel quota restrictions on China in 2005 could result in increases in U.S. net imports of labor-intensive products of over $3 billion in 2006 and gains in U.S. net exports of capital-intensive and agricultural products of over $2 billion and $500 million, respectively, indicating a shift in the allocation of resources within the U.S. economy.

At the sectoral level, China's entry to the WTO would have a significant impact on world net trade in textile-related products. For example, the model results suggest that China would have to increase its net imports of textile materials in order to meet rising intermediate input demand due to the expansion of its apparel production. Most of these textiles are now imported from neighboring newly-industrialized economies such as Taiwan, Hong Kong, and South Korea, and labor-intensive downstream production would further move to China from other Asian economies after the quota phase-out. Similarly, because planted fiber (mainly cotton) is a major input for the textile and apparel industries, it is expected that China would increase its net imports of planted fiber from the world market.

Impact on the U.S. and World Textile and Apparel Markets

To assess the impact of China's inclusion in the ATC on the shares captured by different types of regional suppliers, the fourteen model regions were grouped as follows: the United States; China; Hong Kong, Taiwan, and South Korea; other restricted suppliers (ASEAN, South Asia, and "other restricted suppliers"); and the rest of the world (Canada, the EU, Mexico, Japan, other OECD countries, and "all other countries"). This aggregation was chosen to highlight the effect of China's accession on suppliers that are restricted by the textile and apparel quotas versus unrestricted suppliers.[94]

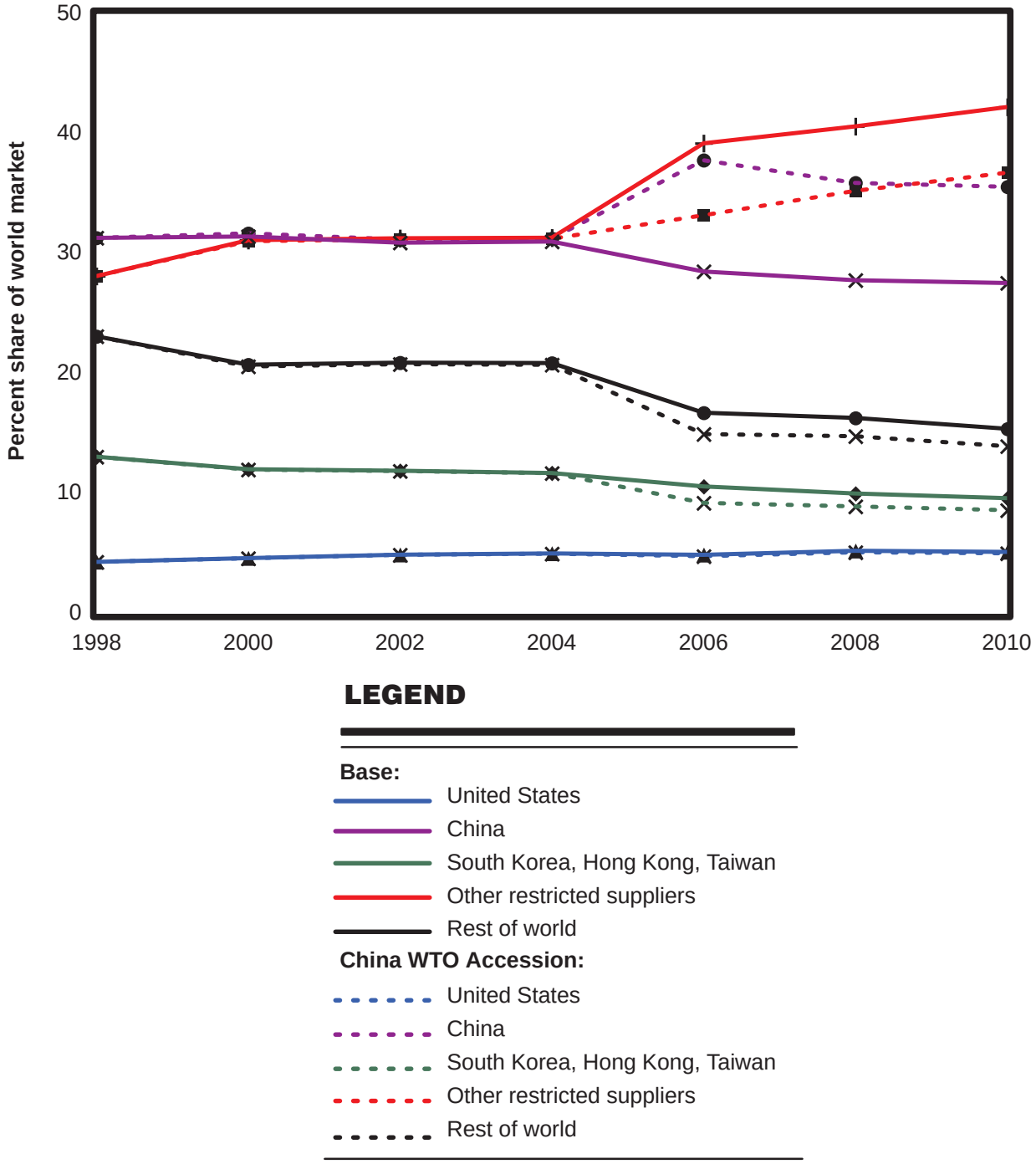
Figures 8-5 and 8-6 illustrate the changes in the regional shares of the world market for apparel and textiles, respectively. The figures illustrate the difference between the two scenarios during the simulation period (1998-2010). Under scenario I (with China not included in the ATC), China's world market share would decline for both the textile and apparel products, with a sharper decline in the world apparel market in 2005, when the quota system is abolished for WTO members. The principal beneficiaries under scenario I would be the other restricted suppliers, whose share in the world apparel market would rise from about 28 percent in 1998 to just over 39 percent in 2006, and continue to increase to about 42 percent in 2010.

As a group, the restricted WTO members would become the largest exporter of apparel to the world market (figure 8-5). The impact of the quota elimination on this group's share of the world textile market is less pronounced (figure 8-6).[95] The share of the world market for textiles accounted for by Hong Kong, South Korea, and Taiwan would increase more rapidly, from about 28 percent in 1998 to over 32

[94] Under scenario I, many of the restricted WTO suppliers would gain a significant price advantage over China, as well as less-competitive suppliers, when quotas are eliminated. With China's entry into the WTO, this advantage would be reduced, if not eliminated.

[95] This is an expected result since textile quotas tend to be less restrictive than apparel quotas.

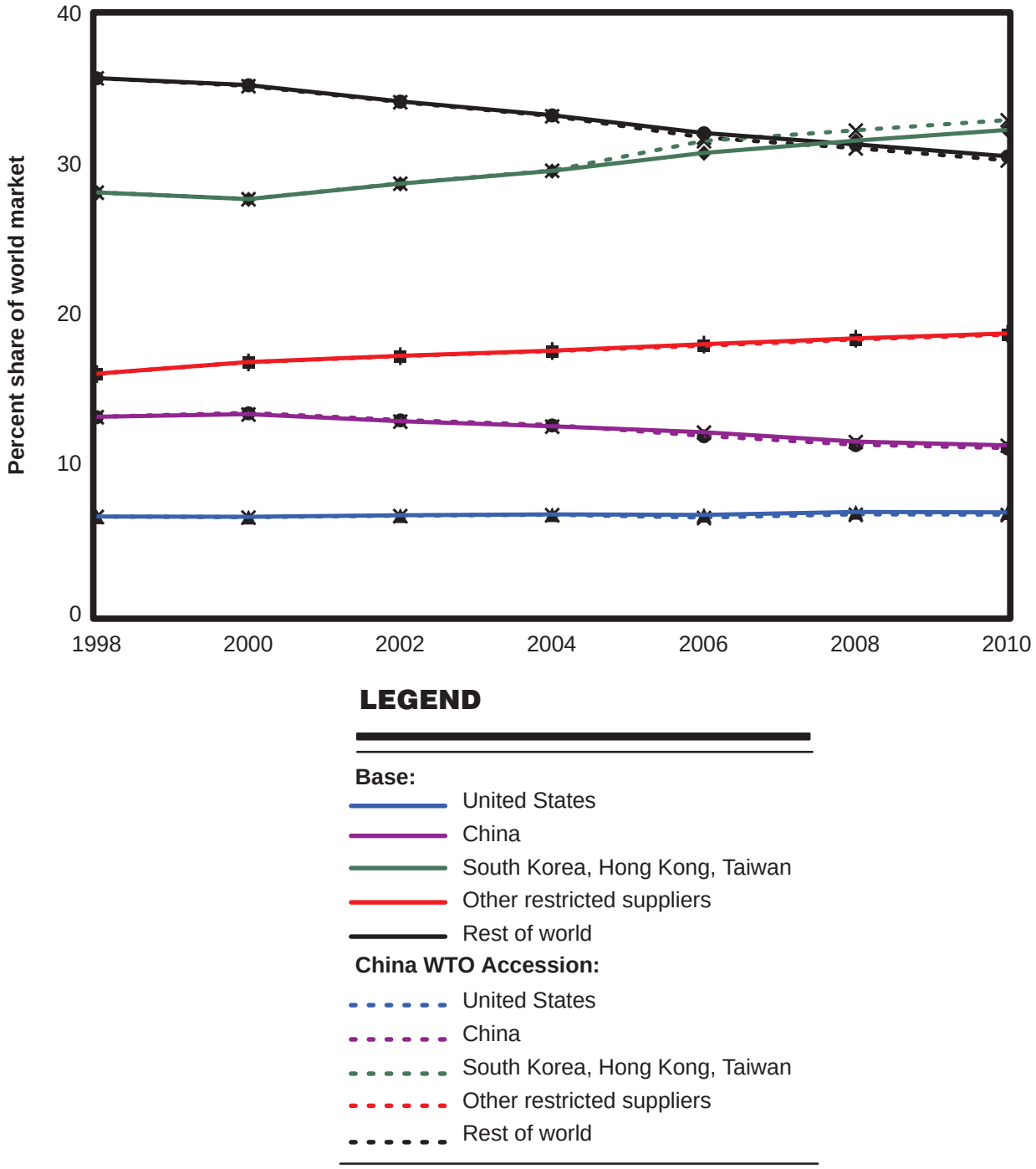
Figure 8-5
Share of world apparel market: 1998-2010



Note.—Other restricted suppliers include three model regions: South Asia, ASEAN, and "other restricted suppliers." Rest of world includes six model regions: Canada, the EU, Mexico, Japan, other developed countries, and "all other countries."

Source: Based on USITC staff estimates.

Figure 8-6
Share of world textiles market: 1998-2010



Note.—Other restricted suppliers include three model regions: South Asia, ASEAN, and "other restricted suppliers." Rest of world includes six model regions: Canada, the EU, Mexico, Japan, other developed countries, and "all other countries."

Source: Based on USITC staff estimates.

percent in 2010 (figure 8-6). By 2010, these three suppliers' share of the market exceeds the share of the "rest of world" group.

Under scenario II (China joins the WTO and benefits from the phase-out of quotas on its textile and apparel exports), China's world market share for apparel would rise by more than 6 percentage points in 2006, maintaining its position as the world's largest exporter of apparel products. This gain would be at the expense, in part, of the other restricted suppliers, whose market share would increase considerably less than under scenario I. In contrast, China's textile market share would decline under both scenarios, and entering the WTO would actually slightly accelerate this downward trend (figure 8-6).

This disparity between China's textile and apparel exports reflects the difference between its textile and apparel industries and production reallocation among East Asia economies. As discussed earlier, textile production is relatively capital-intensive and is often characterized by large-scale production operations. In contrast, apparel production is relatively labor-intensive and more consistent with China's comparative advantage. Such a result also highlights the high substitutability of labor-intensive products among developing countries, and the competitive pressure on world labor-intensive export markets that would result from fully integrating China into the world trading system.

In the U.S. import markets for textiles and apparel, WTO membership would make a significant difference for both China and other regional suppliers. Under scenario I (with quotas on its exports in place), China's share of the U.S. textile market would remain essentially unchanged (figure 8-7). The share of the U.S. textile import market captured by other restricted suppliers would expand somewhat during 1998-2004 because of the accelerated quota growth rate mechanism, and this group would continue to increase its share of the U.S. import market through 2010. The rest of the world would lose market share during the period, particularly after quotas are eliminated in 2005. However, if China entered the WTO and obtained the benefits of quota elimination, its share of the U.S. textile market would increase slightly, to about 11 percent by 2010 (figure 8-7).

In the case of the U.S. apparel import market, China's share would decline slightly under scenario I. However, under scenario II, it would increase by about 18 percentage points when the quantitative restrictions are removed in 2005 (figure 8-8). The respective shares of the other three regional groups would decline after quota removal in 2005, particularly for the other restricted suppliers and, to a lesser extent, Hong Kong, Taiwan, and South Korea. Similar to the results shown for the world market, the impact on China's share in the U.S. import market would be more significant for apparel than for textiles. China's market share difference, comparing the two scenarios, would be under 3 percentage points for textiles but above 20 percent for apparel in 2010. Appendix F presents the same information shown in figures 8-5 through 8-8, but breaks out Canada and Mexico from the "rest of the world" and South Asia from "other restricted suppliers."[96]

Impact on U.S. Textile and Apparel Trade, Production, and Employment[97]

The simulation results suggest that the U.S. textile and apparel industries will both experience declines in domestic shipments and employment as a result of China's inclusion in the ATC. The impact on the U.S. industry is influenced by several factors: (1) the degree of restrictiveness of the quotas on U.S. imports of textiles and apparel from China; (2) China's shares of the U.S. import markets for textiles and apparel; and (3) the degree to which U.S. purchasers of these products are willing to substitute between domestic and foreign suppliers. The degree of protection and substitutability are the more important factors and therefore are discussed below.

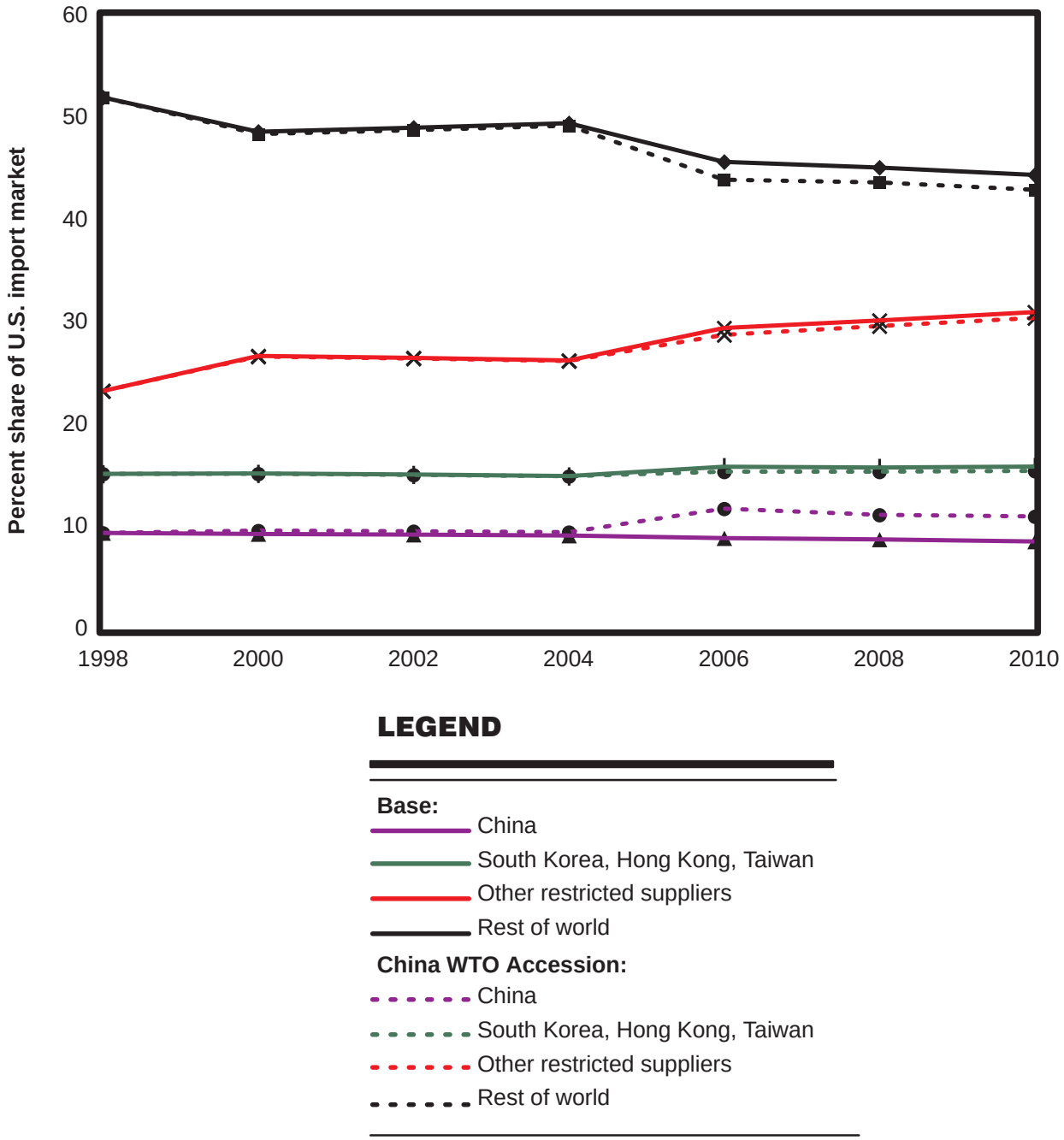
Estimates of the price effects of U.S. quotas on China's exports of textiles and apparel combined with historical data on quota fill rates during the 1990s suggest that the quotas are quite restrictive. Based on weekly license prices and 1996 U.S. import levels, the tax equivalents for China's exports of textiles and apparel were estimated at 11 percent and 37 percent, respectively.[98] In contrast, tax equivalents for other restricted U.S. trading partners range from less than 0.5 to 6 percent for textiles and less than 0.5 to 26 percent for apparel. Because the accelerated quota growth rates for many of the U.S. textile and apparel quotas applied to China are low, the associated price

[96] These figures provide greater detail and illustrate the impact of the two scenarios on South Asia (which exhibits significant gains in market share as a result of quota elimination). The alternative aggregation scheme also illustrates the fact that the 1998 U.S. import market shares for Canada and Mexico are substantially understated.

[97] See Additional Views of Commissioner Stephen Koplan.

[98] For a detailed description of the method used to estimate these tax equivalents, see Linda A. Linkins, "Estimating the Tax Equivalents of U.S. Textile and Apparel Quotas," Research Note No. 99-08-A, Office of Economics, U.S. International Trade Commission, Aug. 1999.

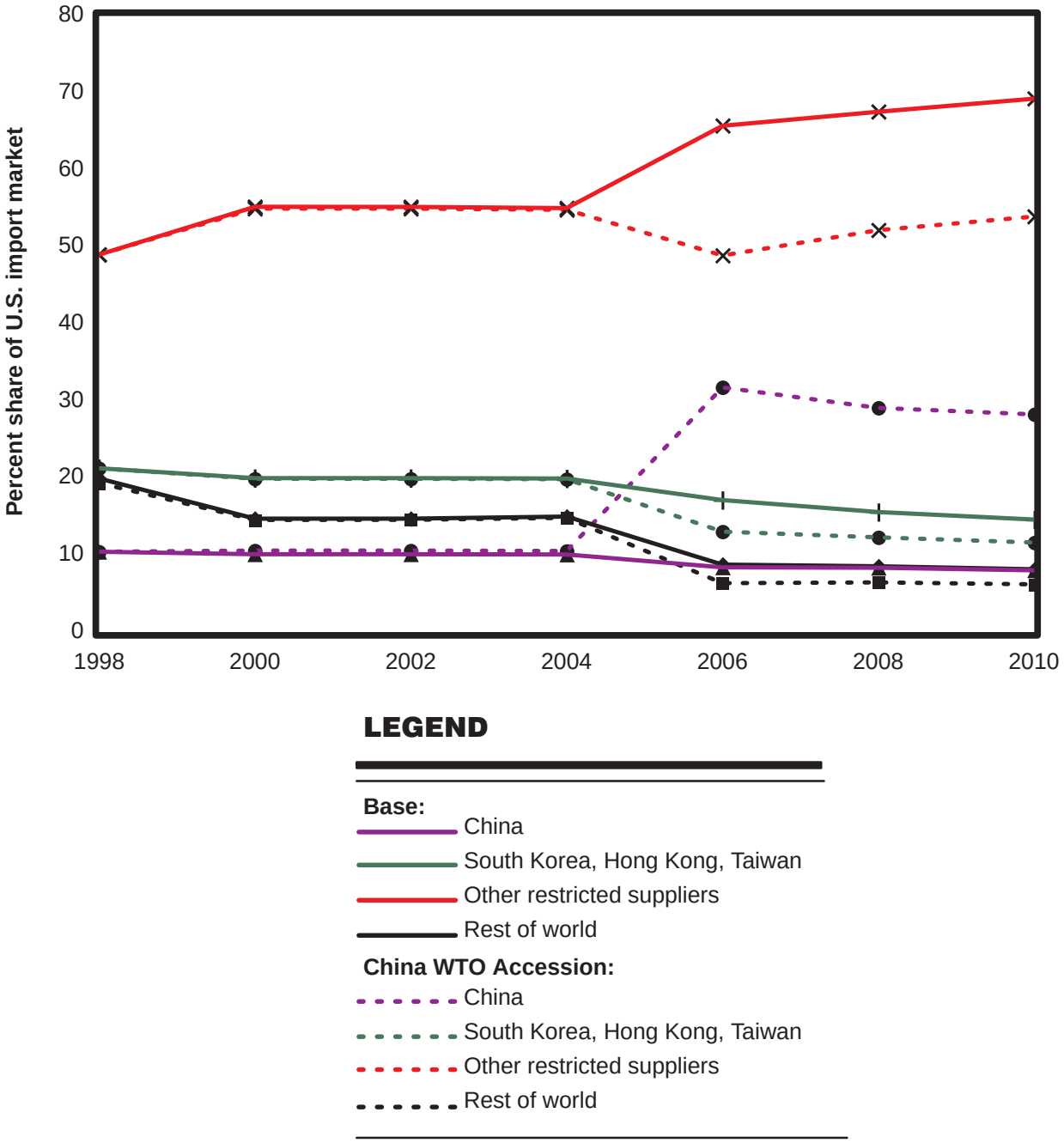
Figure 8-7
Share of U.S. imports of textiles: 1998-2010



Note.—Other restricted suppliers include three model regions: South Asia, ASEAN, and "other restricted suppliers." Rest of world includes six model regions: Canada, the EU, Mexico, Japan, other developed countries, and "all other countries."

Source: Based on USITC staff estimates.

Figure 8-8
Share of U.S. imports of apparel: 1998-2010



Note.—Other restricted suppliers include three model regions: South Asia, ASEAN, and "other restricted suppliers." Rest of world includes six model regions: Canada, the EU, Mexico, Japan, other developed countries, and "all other countries."

Source: Based on USITC staff estimates.

gaps that remain at the end of the phase-out period will likely be fairly high.

The model simulations assume the substitutability between imports from different foreign suppliers is greater than the substitutability between imports and domestic production. However, purchasers of textile products are less likely to shift from one supply source to another than purchasers of apparel.[99] This difference suggests that the textile sector would be less affected.

All together, these factors suggest that final quota elimination will not only affect China's shares of the U.S. textile and apparel import markets (figures 8-7 and 8-8), but also its share of U.S. textile and apparel consumption (vis-a-vis U.S. producers). The inclusion of China in the ATC's quota phase-out will likely have a small impact on U.S. imports of textiles and a larger effect on U.S. imports of apparel. Much of this increase in China's exports of textiles and apparel comes at the expense of other suppliers to the U.S. market. However, the U.S. textile and apparel industries could also be affected, with U.S. apparel producers and workers experiencing the more adverse effects.

U.S. exports of capital-intensive goods to China would increase by more than $300 million in 2006, following the elimination of textile and apparel quota restrictions (table 8-9). These gains would continue through 2010. In general, developed countries and newly-industrialized economies in Asia would benefit relatively more than developing countries from China's WTO entry, because their factor endowments and stage of technology development are different from those of China. Favorable changes in international terms of trade induced by integrating China into the world market are also potentially important. Joining the WTO and obtaining the benefits of the quota phase-out would enable China to increase its production and exports of labor-intensive products, thus intensifying competition in the world market. This would, in turn, tend to reduce export prices in developing countries and import prices in developed countries, the largest final market for such products. The expansion of China's production and trade in labor-intensive manufactures would likely result in higher demand for capital and skill-intensive manufactured goods in China, thus driving up world prices for such products, which are major exports from developed and newly industrialized countries. Such a world price movement would improve international terms of trade for developed countries relative to developing countries, thus enabling them to benefit relatively more than the developing countries from China's WTO accession.

The simulation results suggest that almost all industries in the United States, except for labor-intensive sectors such as apparel, would benefit from China's accession to the WTO. U.S. consumption would rise in every sector, with the largest increase occurring in apparel. If China were to join the WTO, consumers, farmers, food processing firms, and capital- and technology-intensive manufacturers would benefit, and only firms and workers in the textile and apparel industries would be affected adversely. While the proportion of the U.S. labor force employed in the textile and apparel sectors has declined for at least two decades, to less than 2 percent in 1995, China's entry into the WTO would potentially accelerate this trend. However, many of

[99] The elasticities of substitution assumed by the model are taken from the GTAP database. The model distinguishes between substitution between different foreign suppliers (apparel — 8.8; textiles — 4.4) and between domestic and foreign suppliers (apparel — 4.4; textiles — 2.2). For further information, see chapter 19 of R. A. McDougall, A. Elbehri, and T.P. Truong. *Global Trade Assistance and Protection: The GTAP 4 Data Base*, Center for Global Trade Analysis, Purdue University, 1998.

Table 8-9
Changes in U.S. machinery exports to China from the quota phase-out, 2000-10
Million of 1998 US dollars

Year	Motor vehicles and parts	Other transport equipment	Electronic equipment	Other machinery	Total
2000	0.5	1.8	1.0	5.4	8.7
2002	0.6	2.0	1.2	6.2	10.0
2004	0.6	2.2	1.3	6.7	10.8
2006	18.4	64.3	36.7	197.6	317.4
2008	17.0	63.6	38.5	194.8	314.0
2010	16.1	66.8	40.9	205.4	329.2

Source: Based on USITC staff estimates.

China's other trading partners would likely experience similar sectoral adjustments. The expected increase in China's exports of various types of labor-intensive consumer goods to the United States following the elimination of the textile and apparel quotas would also displace employment in other countries such as Taiwan, Hong Kong, and South Korea, because a substantial share of their labor-intensive production will be displaced by that of China in the world market.

ADDITIONAL VIEWS OF COMMISSIONER STEPHEN KOPLAN

ADDITIONAL VIEWS OF COMMISSIONER STEPHEN KOPLAN

In her December 18, 1998 letter to the U.S. International Trade Commission (the Commission), the United States Trade Representative (USTR) requested that the Commission "provide a report to me assessing the probable economic effects on the United States of China's accession to the WTO " (Appendix A). Further, the USTR requested that "this analysis should be based on actual trade and related economic variables from a recent representative, historical period and reflect, to the extent possible, how those trade and related economic variables would have appeared in that same period had China been a member of the WTO...." The USTR stated that "at a sectoral level, the analysis should report, to the extent possible, on changes in U.S. trade, investment, output and employment." The request letter specified that the analysis should include "the effect of the removal of U.S. quantitative restrictions on textile and apparel imports on all WTO members relative to the inclusion of China...."

The Commission, through the diligent work of its staff, has attempted to estimate the effects on production and employment in the U.S. textile and apparel industries. The staff utilized what it considers to be the best available modeling techniques and data to attempt to estimate those effects. However, for reasons stated in Chapter 8 of this report, and due to the limited time available to complete this study, the Commission was not able to estimate those effects with a high enough level of certainty to confidently report them to USTR.

I find it extremely unfortunate that the Commission's study fails to include such estimates. These are vital, labor-intensive industries, with nearly 1.4 million U.S. workers, comprising 7.3 percent of domestic manufacturing jobs in 1998. These industries, particularly apparel, face keen competition from low labor cost countries. In the case of China, this report states hourly labor costs for the apparel industry were only $0.43 in 1998 (See Table 8-2). It is clearly of critical importance for the Administration to consider quantitative estimates of the effects of the accession of China to the WTO on the U.S. textile and apparel industries. I urge that the Commission continue to seek to estimate these effects.

APPENDIX A
Request Letters

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

DEC 18 1998

The Honorable Lynn M. Bragg
Chairman
U.S. International Trade Commission
500 E Street, SW
Washington, D.C. 20436

Dear Madam Chairman:

As you know, the United States has been engaged in multilateral negotiations with China concerning the possible terms of that country's accession to the General Agreement on Tariffs and Trade (GATT) and now the World Trade Organization (WTO). Membership in the WTO will subject China to international rules and standards for conducting trade and will require China to lower trade barriers and open its markets to U.S. goods and services without reciprocal concessions from WTO members.

U.S. negotiators have been in continuing contact with U.S. interests throughout the process of China's accession negotiations and have received a series of comments from the public in response to requests published in the *Federal Register*, meetings with our statutory Advisory Committees and formal and informal outreach efforts. It would also be useful to receive an analysis from the U.S. International Trade Commission (Commission) of the economic effects on the United States of possible reduction and elimination of China's tariff and non-tariff measures (NTMs) likely to result from or to be affected by China's future accession to the WTO as well as China's compliance with WTO rules and standards.

Therefore, under authority delegated by the President and pursuant to section 332(g) of the Tariff Act of 1930, I request that the Commission provide a report to me assessing the probable economic effects on the United States of China's accession to the WTO.

In assessing the effect of possible terms of China's accession on the U.S. economy, the Commission is requested to conduct a comparative static analysis. This analysis should be based on actual trade and related economic variables from a recent representative, historical period and reflect, to the extent possible, how those trade and related economic variables would have appeared in that same period had China been a member of the WTO with all adjustments made that would result from China's lowering and binding its tariffs, accepting disciplines on non-tariff barriers and complying with the WTO.

The analysis should report on standard U.S. economic variables such as aggregate exports and imports with China and the world, employment, average labor productivity, average labor

compensation and gross domestic product. At a sectoral level, the analysis should report, to the extent possible, on changes in U.S. trade, investment, output and employment. The analysis should examine the effect of China's accession on distribution of household income in the United States, taking into account factors such the as accession's effect on labor compensation and returns to ownership of capital in various productive sectors in the United States, and changes in consumer prices of various affected goods and services.

As in other recent work by the Commission in the area of economic analysis, the Commission's assessment should be as comprehensive as possible. This request, however, is being made with the understanding that the Commission may not be able to respond fully because of the request's broad scope and the lack of available information necessary for complete analysis. To the extent necessary data are available, this analysis should be quantitative. However, in instances where quantitative estimates are not possible, qualitative information about the barrier, and the effects of its removal, should be presented. For any remaining parts of this request to which the Commission feels responses are not possible, an assessment of the sources of difficulty in making particular assessments should be included.

With respect to quantitative analysis, some expected effects may not be captured in current models (e.g., dynamic effects), or there may be known biases affecting model results (e.g., aggregation bias). In such an event, the Commission is requested to discuss the nature of the limitations and biases and how such factors may affect reported results, based on economic theory, reviews of any relevant economic literature and more general descriptive analysis.

Please include in the report a description of any models or data sets used in the quantitative assessments of the issues. These descriptions should include a discussion of the structure and function of the model and the type and breadth of data.

The accession negotiation has, of course, not been completed and the detailed parameters of the final terms are not yet known. During the course of the Commission's investigation it may be possible to provide the Commission with additional information on the terms of China's accession, recognizing that any changes in the scope or content of the study would likely necessitate an extension of the completion date.

As an overview to the analysis, the report should provide a profile of China's trade and investment patterns.

With regard to Chinese tariff reductions, two initial assessments should consider a 25% and a 50% across the board cut in Chinese MFN tariff rates. Each tariff reduction should be taken in turn from two sets of base rates: from China's 1992 MFN tariff rates and from China's 1996 MFN tariff rates (or, if 1996 data are not available, then from the most recent feasible year).

The Commission is also requested to assess the changes in U.S. trade, U.S. foreign investment and the U.S. domestic economy resulting from the following non-tariff aspects of a possible accession agreement. To the extent possible, the analysis of the following non-tariff barriers should be quantitative. Where either data or methodological limitations preclude quantitatively estimating the effects of the removal of such non-tariff barriers, the Commission should make a qualitative assessment. This should include a presentation of relevant previous research on these non-tariff barriers.

- The elimination of China's WTO-inconsistent licensing, quota and tendering requirements;

- A comparison of the current trade situation with China to the institution of tariff rate quotas as part of an accession package on the following agricultural products: corn, cotton, oilseeds, rice, sugar, vegetable oils, wheat, wool, and wool tops;

- The elimination of China's trade related investment measures such as export performance requirements, local content, and trade and foreign exchange balancing;

- Market openings in these Chinese service sectors: distribution (including commission agents, wholesaling, retailing, and franchising), financial services (including insurance), telecommunications (including basic and value-added services), tourism and travel, land-based air courier services, business services, including professional services, consultancy and advertising, and business services auxiliary to distribution such as rental and leasing of equipment, maintenance and repair, packaging, storage, and warehousing;

- An analysis of the effect of China's compliance with WTO rules on, or affecting, transparency, national treatment, judicial review, state trading, offset, and protection and transfer of technology;

- The effect of the removal of U.S. quantitative restrictions on textile and apparel imports on all WTO members relative to the inclusion of China, in the context of the U.S. bilateral agreement on textiles and apparel with China; and

- Any other change in the conditions of trade with China not herein stated that is a result of accession and likely to materially affect U.S. trade and investment flows.

To the extent possible, please also estimate and/or discuss the effect of accession on China's rate and pattern of trade, economic growth and internal economic reform.

I request that the Commission provide its report in this matter no later than June 1, 1999. I may also request periodic updates of this analysis in the future, if circumstances require such action.

In accordance with USTR policy implementing Executive Order 12958 entitled "Classified National Security Information," I direct you to mark or identify as "confidential", for a period of ten years, such portions of the Commission's report and its working papers which deal with the ongoing accession negotiations. Consistent with the Executive Order, this information is being classified on the basis that it concerns economic matters relating to the national security. USTR also considers the Commission's report to be an inter-agency memorandum that will contain predecisional advice and be subject to the deliberative process privilege. I also request that you submit an outline of this report as soon as possible to enable USTR officials to provide you further guidance on the extent and duration to which portions of the report require classification. Based on this outline, a USTR official with original classification authority will provide you written instructions.

The Commission's assistance in this matter and its continuing support and cooperation are greatly appreciated.

Sincerely,

Charlene Barshefsky

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

MAY 25 1999

The Honorable Lynn M. Bragg
Chairman
U.S. International Trade Commission
500 E Street, SW
Washington, DC 20436

Dear Madam Chairman:

On December 18, 1998, I requested that the U.S. International Trade Commission (Commission) provide a report assessing the probable economic effects on the United States of China's accession to the World Trade Organization (WTO). As a result, the Commission instituted investigation No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO*. In that request letter, I indicated that during the course of the investigation, it might be possible to provide the Commission with additional information on the terms of China's accession, recognizing that any changes in the scope or content of the study would likely necessitate an extension of the completion date. In this regard, I request that the Commission's investigation incorporate comparative static analysis applicable to China 's tariff offer made in April 1999. My office is providing this information to the Commission on a confidential basis.

I request that the Commission provide its report, including this additional analysis, no later than June 15, 1999. Classification of this report and the additional information provided are subject to the guidance provided in connection with my original request.

The Commission's assistance in this matter and its continuing support and cooperation are greatly appreciated.

Sincerely,

Charlene Barshefsky

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

June 16, 1999

The Honorable Lynn M. Bragg
Chairman
U.S. International Trade Commission
500 E Street, SW
Washington, D.C. 20436

Dear Madam Chairman:

On December 18, 1998, I requested that the U.S. International Trade Commission (Commission) provide me with a report assessing the probable economic effects on the United States of China's accession to the World Trade Organization (WTO). As a result, the Commission instituted investigation No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO*. In May 1999, USTR provided the Commission with confidential information on the market access offer that China made in April 1999 and extended the time period so that the Commission could provide a more up-to-date assessment of the economic effects of China's tariff reductions.

I appreciate the complexity of the issues raised in this investigation and the tight schedule under which the Commission has been working. I understand that the Commission will need additional time to complete its review of the report before it is transmitted.

In light of the ongoing nature of the negotiations, I hereby request that the Commission amplify its report with further quantitative analysis of the effects on the U.S. economy of the full range of market access commitments (e.g., from telecommunications and insurance to elimination of non-tariff measures) that China made in April 1999. Since trading rights and distribution services are cross-cutting issues that affect the full range of U.S. exports, including agricultural products, as well as the operation of U.S. businesses, analysis of the effects of these commitments on the U.S. economy is particularly important.

Because of the complexity of the analysis involved, I request that the Commission provide its report, including this additional analysis, no later than August 16, 1999. My prior guidance regarding the classification and treatment of the report and related materials also applies to this additional request.

The Commission's assistance in this matter and its continuing support and cooperation is greatly appreciated.

Sincerely,

Charlene Barshefsky

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

Original rec'd 9/2/99
To: Docket to replace fax copy.

332-403

DOCKET

September 1, 1999

RECEIVED
OFC OF THE SECRETARY
US INT'L TRADE COMM
'99 SEP -2 A11:46

The Honorable Lynn M. Bragg
Chairman
U.S. International Trade Commission
500 E Street, SW
Washington, D.C. 20436

Dear Madam Chairman:

We have just received the U.S. International Trade Commission's (Commission) report, *Assessment of the Economic Effects on the United States of China's Accession to the WTO,* which is currently classified as confidential pursuant to guidance received from the Office of the U.S. Trade Representative (USTR). I, hereby, declassify the "Executive Summary" to the Report and request that the Commission make that summary available to the public as quickly as possible.

We are currently reviewing the body of the report for declassification purposes. We intend to complete this review expeditiously and will provide further guidance to the Commission on those portions of the Report which are to be declassified.

We appreciate the Commission's cooperation and assistance in making its conclusions available to the public.

Sincerely,

Robert T. Novick
General Counsel

* Original to fax received 9-1-99

ENTERED SEP 10 1999

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

September 17, 1999

The Honorable Lynn M. Bragg
Chairman
U.S. International Trade Commission
500 E Street, SW
Washington, D.C. 20436

Dear Madam Chairman:

On September 1, 1999, the Office of the U.S. Trade Representative (USTR) declassified the Executive Summary of the U.S. International Trade Commission's (Commission) report, *Assessment of the Economic Effects on the United States of China's Accession to the WTO,* and stated that we would be providing the Commission with additional guidance on declassification of the body of the Report. We have now completed our review of the Report for declassification purposes.

We have transmitted to you a copy of the Report indicating, by brackets, those portions of the Report that are to remain classified as confidential. The remainder of the Report is hereby declassified and may be released to the public. We will be reevaluating the confidential status of any information that remains classified based on the state of the negotiations on China's accession to the World Trade Organization and will contact the Commission regarding any change in the treatment of the Report.

We appreciate the Commission's cooperation and assistance in this matter.

Sincerely,

Robert T. Novick
General Counsel

APPENDIX B
Federal Register Notices

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

(Investigation 332-403)

ASSESSMENT OF THE ECONOMIC EFFECTS ON
THE UNITED STATES OF CHINA'S ACCESSION TO THE WTO

AGENCY: United States International Trade Commission

ACTION: Institution of investigation and notice of opportunity to submit comments.

EFFECTIVE DATE: January 19, 1999

SUMMARY: Following receipt on December 21, 1998, of a request under sec. 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) from the United States Trade Representative (USTR), the U.S. International Trade Commission (the Commission) instituted investigation No. 332-403, *Assessment of the Economic Effects on the United States of China's Accession to the WTO*. The Commission plans to submit its report to the USTR by June 1, 1999.

FURTHER INFORMATION CONTACT: Arona Butcher, Office of Economics, (202-205-3301) or James Stamps, Office of Economics (202-205-3227). The media should contact Margaret O'Laughlin, Office of External Relations (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). General information concerning the Commission may also be obtained by accessing its Internet server (http://www.usitc.gov).
BACKGROUND: As requested by the USTR, the Commission will provide in its report an assessment of the probable economic effects on the United States of China's accession to the World Trade Organization (WTO). As requested, the Commission will conduct a comparative static analysis. The analysis will be based on actual trade and related economic variables from a recent representative, historical period. It will reflect, to the extent possible, how those trade and related economic variables would have appeared in that same period had China been a member of the WTO with all adjustments made that would result from China's lowering and binding its tariffs, accepting the disciplines on non-tariff barriers, and complying with the WTO.

As requested, the Commission will report on standard U.S. economic variables. These will include (1) aggregate exports and imports with China and the world, employment, average labor productivity, average labor compensation, and gross domestic product, and (2) changes in U.S. trade, investment, output, and employment at the sectoral level and changes in consumer prices of various affected goods and services. The Commission will also provide a profile of China's trade and investment patterns and will estimate or discuss, to the extent possible, the effect of WTO accession on China's pattern of trade, rate of economic growth, and internal economic reform process.

With regard to Chinese tariff reductions, the Commission will make two assessments: it will consider a 25 percent and a 50 percent across-the-board cut in Chinese tariff rates, with each tariff reduction taken in turn from two sets of base rates—from China's 1992 tariff rates and from China's 1996 tariff rates (or the most recent feasible year if 1996 data are not available).

WRITTEN SUBMISSIONS: U.S. firms and other interested persons are invited to submit written statements concerning any of the matters to be addressed in the report. The Commission is especially interested in receiving:

1. Information regarding the likely economic effects of a 25 percent or a 50 percent reduction in current Chinese tariff rates on the interests of specific U.S. firms, industries, investors, consumers, or groups of workers;

2. A list of Chinese non-tariff barriers ranked according to the degree of concern to the interests of specific U.S. firms, industries, investors, consumers, or groups of workers; and

3. Quantitative estimates (in percentage terms, if possible) of the current economic effects of Chinese non-tariff barriers, and estimates of the potential economic effects on U.S. exports, employment, and investment of reducing or eliminating these non-tariff barriers.

Commercial or financial information that a person desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of section 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons in the Office of the Secretary to the Commission. To be assured of consideration by the Commission, written statements relating to the Commission's report should be submitted at the earliest practical date and should be received not later than March 9, 1999. All submissions should be addressed to the Secretary, United States International Trade Commission, 500 E Street SW, Washington, D.C. 20436. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means.

By order of the Commission.

Donna R. Koehnke

Donna R. Koehnke
Secretary

Issued: January 20, 1999

APPENDIX C
List of Hearing Participants and Written Submissions

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List of Hearing Participants and Written Submissions

Hearing Participants and Written Submissions

William T. Archey, American Electronics Association, on behalf of American Electronics Association

Eric O. Autor, National Retail Federation, on behalf of National Retail Federation

Julia K. Bailey, Williams Mullen Christian and Dobbins, on behalf of National Housewares Manufacturers Association

Julia K. Bailey, Williams Mullen Christian and Dobbins, on behalf of Federal Express Corporation

Lisa B. Barry, the Boeing Company, on behalf of the Boeing Company

Steve Beckman, International Union United Automobile Aerospace and Agricultural Implement Workers of America, on Behalf of International Union United Automobile Aerospace and Agricultural Implement Workers of America

C. Fred Bergsten, Institute for International Economics, on behalf of Institute for International Economics

Charles V. Bremer, American Textile Manufacturers Institute, on behalf of American Textile Manufacturers Institute

James R Cannon Jr., Stewart and Stewart, on behalf of Gates Rubber Company

James B. Clawson, J. B. C. International, on behalf of Wine Institute and The California Association of Grape Growers

Calman J. Cohen, Emergency Committee for American Trade, on behalf of Emergency Committee for American Trade

John D. O. Connell, Distilled Spirits Council of the United States, on behalf of Distilled Spirits Council of the United States

Kevin M. Dempsey, Dewey Ballantine LLP, on behalf of Semiconductor Industry Association

Michael Dolan, Public Citizen and the Citizens Trade Campaign, on behalf of Public Citizen and the Citizens Trade Campaign

Michael J. Duff, Analytical and Life Science Systems Association, on behalf of Analytical and Life Science Systems Association

Daniel C. Duncan, Software and Information Industry Association, on behalf of Software and Information Industry Association

Ryan A. Eppenberger, Association for Suppliers of Printing Publishing and Converting Technologies, on behalf of Association for Supplies of Printing Publishing and Converting Technologies

William P. Farrell, American Hardware Manufacturers Association, on behalf of American Hardware Manufacturers Association

Anna M. Fernau, Direct Selling Association, on behalf of Direct Selling Association

Matt Flanigan, Telecommunications Industry Association, on behalf of Telecommunications Industry Association

Michael R. Gale, Warnaco, on behalf of Warnaco

Helen Garrity, Human Life International, on behalf of Human Life International

Carolyn B. Gleason, Mcdermott Will and Emery, on behalf of California Cling Peach Growers Advisory Board

Owen E. Hernstadt, International Association of Machinists and Aerospace Workers, on behalf of International Association of Machinists and Aerospace Workers

Shannon S. S. Herzfeld, Pharmaceutical Research and Manufacturers of America, on behalf of Pharmaceutical Research and Manufacturers of America

William C. Hewins, Welch Foods Incorporated, on behalf of Welch Foods Incorporated

Ann Hoffman, UNITE, on behalf of UNITE

Thomas R Howell, Dewey Ballantine LLP, on behalf of American Iron and Steel Institute

Michael W. Hurley, Association for Suppliers of Printing Publishing and Converting Technologies, on behalf of Association for Suppliers of Printing Publishing and Converting Technologies

Brenda a Jacobs, Powell Goldstein Frazer and Murphy, on behalf of U.S. Association of Importers of Textiles and Apparel

Art Jaeger, Public Voice for Food and Health Policy, on behalf of Public Voice for Food and Health Policy

James Wm. Johnson Jr., American Sugar Alliance, on behalf of American Sugar Alliance

Robert A.Kapp, United States China Business Council, on behalf of United States China Business Council

Christine Keck, Telecommunications Industry Association, on behalf of Telecommunications Industry Association

Thomas S. Keller, Manufacturing Jewelers and Silversmiths of America Inc, on behalf of Manufacturing Jewelers and Silversmiths of America Inc.

Dean Kleckner, American Farm Bureau Federation, on behalf of American Farm Bureau Federation

Laurence J. Lasoff, Collier Shannon Rill and Scott, on behalf of Outdoor Power Equipment Institute Inc.

Thea M. Lee, American Federation of Labor and Congress of Industrial Organizations, on behalf of American Federation of Labor and Congress of Industrial Organizations

Mark Levinson, Union of Needletrades Industrial and Textile Employees, on behalf of American Federation of Labor and Congress of Industrial Organizations (AFL–CIO)

M. Barry Levy, Sharretts Paley Carter and Blauvelt, on behalf of Toy Manufacturers of America Incorporated

John B. Lynn, E D S Corporation, on behalf of E D S Corporation

John B. Lynn, Global Telecommunications Policy, on behalf of Global Telecommunications Policy Dave Mc Curdy, Electronic Industries Alliance, on behalf of Electronic Industries Alliance

Dave Mc Curdy, Electronic Industries Alliance, on behalf of Electronic Industries Alliance

John F. Mc Dermid, International Business Government Counsellors Inc., on behalf of International Business Government Counsellors Inc.

Douglas Mc Millan, Mc Millan Electric Company, on behalf of Mc Millan Electric Company

Walter Reed Martindale III, Guilford Washington Liaison Office, on behalf of Guilford Mills Inc. and Guilford International

Greg Mastel, Economic Strategy Institute, on behalf of Economic Strategy Institute

Carlos Moore, American Textile Manufacturers Institute, on behalf of American Textile Manufacturers Institute

Mark D. Nguyen, White and Case, on behalf of White and Case

Scott Nova, Public Citizen Global Trade Watch, on behalf of Public Citizen Global Trade Watch

Paul T. O'Day, American Fiber Manufacturers Association Inc, on behalf of American Fiber Manufacturers Association Inc.

J. C. Reichenbach Jr, P P G Industries Inc, on behalf of P P G Industries Inc.

Bonnie J. K. Richardson, Motion Picture Association, on behalf of Motion Picture Association

Irene Ringwood, Ball Janik LLP, on behalf of Hager Hinge Company

Irene Ringwood, Ball Janik LLP, on behalf of American Dehydrated Onion and Garlic Association

William J. Robinson, International Hand Protection Association, on behalf of International Hand Protection Association

Peggy S. Rochette, National Food Processors Association, on behalf of National Food Processors Association

Daniel H. Rosen, Institute for International Economics, on behalf of Institute for International Economics

Louis Santucci, the Cosmetic Toiletry and Fragrance Association, on behalf of the Cosmetic Toiletry and Fragrance Association

Michelle Sforza, Public Citizen Global Trade Watch, on behalf of Public Citizen Global Trade Watch

David R. Smith, De Kalb Genetics Corporation, on behalf of De Kalb Genetics Corporation

Maureen R. Smith, American Forest and Paper Association, on behalf of American Forest and Paper Association

Susan S. Smith, Chocolate Manufacturers Association, on behalf of Chocolate Manufacturers Association

Barry Solarz, American Iron and Steel Institute, on behalf of American Iron and Steel Institute

Alan Tonelson, United States Business and Industry Council, on behalf of United States Business and Industry Council

Peter Vitaliano, National Milk Producers Federation and U.S. Dairy Export Council, on behalf of National Milk Producers Federation and U.S. Dairy Export Council

Mike Yost, Thomas Detamore, Den Swenson, Allen Johnson, and Joe Anderson, American Oilseed Coalition, on behalf of American Oilseed Coalition

Construction Industry Manufacturers Association, Construction Industry Manufacturers Association, on behalf of Construction Industry Manufacturers Association

Luggage and Leather Goods Manufacturers of America Inc., Luggage and Leather Goods Manufacturers of America Inc., on behalf of Luggage and Leather Goods Manufacturers of America Inc.

Footwear Industries of America Inc, Footwear Industries of America Inc., on behalf of Footwear Industries of America Inc

Motorola, Motorola, on behalf of Motorola

Neckwear Association of America Inc, Neckwear Association of America Inc., on behalf of Neckwear Association of America

APPENDIX D
Specification of the China-WTO Model

APPENDIX D
Specification of the China-WTO Model

Structure of the Model and Description of Data

The global computable general equilibrium (CGE) model used in this report is similar to the CGE models that have been used in previous research on the impact of China's accession to the WTO (Wang 1997a, 1997b, 1999). The model is an extension of the one-country CGE model described in de Melo and Tarr (1992) to a multi-country setting. The current model follows Whalley's tradition (1985) of endogenizing all regions including the "rest of the world", incorporates the macroeconomic specifications shown in Devarrajan, Lewis and Robinson (1990), and includes an international shipping sector similar to that found in the Global Trade Analysis Project (GTAP) model (Hertel and Tsigas 1997). Moreover, the Leontief technology in de Melo and Tarr's model is replaced by a constant elasticity of substitution (CES) production function, which allows substitution between value-added and aggregate inputs in the upper-level of the production tree. In addition, the linear expenditure system (LES) has been modified. The extended linear expenditure system (ELES) makes household savings decisions endogenous in the model. Because the duality approach is used throughout the specification, the model is relatively simple and transparent in structure.

In the current study the model uses version 4 of the GTAP database.[1] Commission staff aggregated the data base into fourteen regions, with forty production sectors in each region, to represent the world economy (see tables D-1 and D-2). The forty sectors include eleven agricultural sectors, eight food processing sectors, three natural resource based sectors, sixteen manufactures sectors, and two services sectors. A portion of the product of the traded services sector is allocated to international shipping. There are six primary factors of production: agricultural land, natural resources, capital, agricultural labor, unskilled labor, and skilled labor. Skilled and unskilled labor have basic education in common, but skilled labor usually has more advanced training. Agricultural labor consists of those who work only in the farm sectors and typically have little education. Primary factors are assumed to be mobile across sectors, but immobile across regions.

Three demand-side agents are assumed for each region: a private household, the government, and an investor. Factor endowments are assumed to be owned by households. In each region, the private household is assumed to sell the various types of labor and to rent land and capital to firms. The household allocates its income from factor returns to savings and expenditures (which buy final consumption goods from the firms). The investor collects savings from the household, government, and firms, accounting for foreign capital inflows or outflows. Total regional savings is available to the investor in each region and represents its budget to buy capital goods, which are assumed to consist of fixed proportions of the forty composite goods for gross investment.

Intra-period Equilibrium Structure

The model assumes that there is one competitive firm in each sector for every region, which produces only one product. Sectoral production is characterized by two-level nested constant elasticity of substitution (CES) functions. At the first level, firms are assumed to use two types of inputs: a composite primary factor and an aggregate intermediate input according to a CES cost function. At the second level, the composite of primary factors of production is also determined by a CES function. However, the split of intermediate demand is assumed to follow a Leontief specification. As a result, there is no substitution among intermediate inputs. Technology in all sectors exhibits constant returns to scale, implying long-run constant average and marginal costs. The firm's output is sold on the domestic market or exported to other regions through a constant elasticity of transformation (CET) function.

[1] For a complete description of the GTAP database, see McDougall, Elbehri, and Truong (1998). The fully disaggregated database consists of 45 regions and 50 production sectors.

Table D-1
Definition of China-WTO Model Regions

Region:
1. United States
2. Canada
3. European Union (15 member countries of the EU)
4. Japan
5. Other developed countries: Australia New Zealand European Free Trade Area (EFTA) countries
6. South Korea
7. Taiwan
8. Hong Kong
9. China
10. Association of South East Asian (ASEAN) countries: Singapore Malaysia Thailand Philippines Indonesia
11. South Asia: India Bangladesh Nepal Pakistan Sri Lanka
12. Mexico
13. Other countries/regions restricted by textile and apparel quotas: Brazil Turkey Central America and Caribbean
14. Rest of World (ROW)

Source: Compiled by USITC staff from the Global Trade Analysis Project (GTAP) database.

Table D-2
Concordance of China-WTO Model Sectors, GTAP Database Sectors, and ISIC Codes

Sectors in the model	GTAP 4 sector number and description[1]	ISIC rev. 3 code[2]
Paddy rice	1. Paddy rice	01111, 01301, 01401
Wheat	2. Wheat	01112, 01302, 01402
Other grains	3. Cereal grains nec	01113, 01303, 01403
Vegetables, fruits, and nuts	4. Vegetables, fruits, nuts	01121, 01204, 01404
Oil seeds	5. Oil seeds	01114, 01305, 01405
Raw sugar	6. Sugar cane, sugar beet	01115, 01306, 01406
Plant-based fibers	7. Plant-based fibers	01116, 01307, 01407
Other crops	8. Crops n.e.c.	01117, 01122, 1132, 01308, 01408
Bovine cattle, sheep, goats, and horses	9. Bovine cattle , sheep and goats, horses	01211, 01309, 01409
Other livestock and raw milk	10. Animal products n.e.c., 11. Raw milk	01220, 01212, 013010, 013011, 014010, 014011
Wool and silk-worm cocoons	12. Wool, silk-worm cocoons	01213, 013012, 014012
Forestry	13. Forestry	0200
Fisheries	14. Fishing	0150, 0500
Mining	15. Coal, 16. Oil, 17. Gas, and 18. Minerals n.e.c.	1010, 1020,1030, 11101, 11102, 11201, 11202, 1200, 1310, 1320, 1410, 1421, 1422, 1429
Beef, sheep and goat, and horse meat products	19. Bovine cattle, sheep and goat, and horse meat products	15111
Other meat products	20. Meat products n.e.c.	15112, 15141
Vegetable oils and fats	21. Vegetable oils and fats	15142
Dairy products	22. Dairy products	1520
Processed rice	23. Processed rice	15311
Sugar	24. Sugar	1542
Other food products	25. Food products n.e.c.	1512, 1513, 15312, 1532, 1533, 1541, 1543, 1544,1549
Beverages and tobacco	26. Beverages and tobacco products	1551, 1552, 1553, 1554, 1600
Textiles	27. Textiles	1711-12,1721-23,1729-30, 2430
Apparel	28. Wearing apparel	1810,1820,2430
Leather products	29. Leather products	1911, 1912, 1920
Wood products	30. Wood products	2010, 2021, 2022, 2023, 2029, 3610
Paper products	31. Paper products, publishing	2101, 2102, 2109, 2211, 2212, 2219,2221, 2222
Sectors in the model	GTAP 4 sector number and description[1]	ISIC rev. 3 code[2]
Petroleum and coal	32. Petroleum, coal products	2310, 2320
Chemicals, rubber, and plastics	33. Chemical, rubber, and plastic products	2330, 2411, 2412, 2413, 2421, 2422, 2423,2424, 2429, 2511, 2519, 2520
Mineral products	34. Mineral products n.e.c.	2610, 2691, 2692, 2693, 2694, 2695, 2696, 2699
Iron and steel	35. Ferrous metals	2710, 2731
Other metals	36. Metals n.e.c.	2720,2732
Metal products	37. Metal products	2811, 2812, 2813, 2891, 2892, 2893, 2899
Motor vehicles and parts	38. Motor vehicles and parts	3410, 3420, 3430

Table D-2-Continued
Concordance of China-WTO Model Sectors, GTAP Database Sectors, and ISIC Codes

Sectors in the model	GTAP 4 sector number and description[1]	ISIC rev. 3 code[2]
Other transport equipment	39. Transport equipment n.e.c.	3511, 3512, 3520, 3530, 3591, 3592, 3599
Electronic equipment	40. Electronic equipment	3000, 3210, 3220, 3230
Other machinery	41. Machinery and equipment n.e.c.	2213, 2230, 2911-15, 2919, 2921-27, 2929-30, 3110, 3120, 3130, 3140, 3150, 3190, 3311-13, 3320, 3330
Other manufactures	42. Manufactures n.e.c..	3691, 3692, 3693, 3694, 3699
Traded services	47. Trade, transport, 48. Financial, business, recreational services, 49. Public administration and defense, education, health services	3710, 3720, 4100, 4510, 5010, 5020, 5030, 5040, 5050, 5110, 5121-22, 5131, 5139, 5141-43, 5149-50, 5190, 5220, 5231-34, 5239-40, 5251-52, 5259-60, 5510, 5520, 6010, 6021-23, 6030, 6110, 6120, 6210, 6220, 6301--04, 6309, 6411-12, 6420, 6511, 6519, 6591-92, 6599, 6601-03, 6711-12, 6719-20, 7010, 7020, 7111-13, 7121-23, 7129, 7130, 7210, 7220, 7230, 7240, 7250, 7290, 7310, 7320, 7411-14, 7421-22, 7430, 7491-95, 7499, 7511-14, 7521-23, 7530, 8010, 8021-22, 8030, 8090, 8511-12, 8519-20, 8531-32, 9000, 9111-12, 9120, 9191-92, 9199, 9211,-14, 9219-20, 9231-33, 9241, 9249, 9301-03, 9309, 9500, 9900
Non-traded services	43. Electricity, 44. Gas manufacture and distribution, 45. Water, 46. Construction, and 50. Dwellings	4010,4020,4030,4510,4520,4530,4540,4550

[1] Global Trade Analysis Project, Version 4.
[2] International Standard Industry Classification.

Source: Compiled by USITC staff from the GTAP database (McDougall, Elbehri, and Truong 1998).

Agents in each region value products from different regions as imperfect substitutes (Armington 1969). In each region, the private household maximizes a Stone-Geary utility function over the forty composite goods, subject to their budget constraints, through an ELES of demand. Household savings constitute demand for future consumption goods with a zero subsistence quantity (Howe 1975). The price of savings is defined by an economy-wide consumer price index. It represents the opportunity cost of giving up current consumption in exchange for future consumption (Wang and Kinsey 1994). Government spending and investment decisions in each region are based on Cobb-Douglas utility functions, which generate constant expenditure shares for each composite commodity. In each region, firms' intermediate inputs, household consumption, government spending, and investment demand constitute total demand for the same Armington composite of domestic products and imported goods. A two-level nested CES aggregation function is specified for each composite commodity in each region. Total demand is first divided between domestically-produced and imported goods. Then the expenditure on imports is further divided according to the geographical origin of the goods under the assumption of cost minimization. Complete bilateral trade flow matrices for all trade partners are part of the model solution.

There is an international shipping industry in the model that accounts for the transportation of products from one region to another. Each region is assumed to allocate a fraction of the output of its transportation and service sector to satisfy the demand for shipping which is generated by interregional trade. The global shipping industry is assumed to have a unitary elasticity of substitution among supplier sources.

Thus, the margins associated with this activity are commodity/route specific. In equilibrium, the total value of international transportation services at the world price equals the sum of the export proportions of the service sector's output from each region.

The government in each region is assumed to impose import tariffs, non-tariff barriers (NTBs), export subsidies, and indirect taxes, all in *ad valorem* terms. Tariff, NTB, and export tax (or subsidy) rates vary by sector and by destination. Indirect tax rates vary by sector within each region.

Equilibrium is defined as a set of prices and quantities for goods and factors in all regions such that: (1) demand equals supply for all goods and factors; (2) each industry earns zero profit; and (3) gross investment equals aggregate savings in each region.

Inter-period Linkages

The model represents inter-period linkages as follows. Along the dynamic path, economic growth is determined by four factors: the rate of labor force growth; accumulation of physical capital stocks; changes in the composition of the labor force (in terms of migration between rural and urban unskilled labor and changes in the skilled labor force); and the rate of total factor productivity (TFP) growth. The model also allows for a capital and intermediate goods imports-embodied technology transfer among regions, which links a region's TFP growth with its imports of capital and technology intensive products. The technology transfer is assumed to flow in one direction -- from more developed regions to other regions (i.e., to other developed or less developed regions).

The labor force growth rate for each region is set exogenously. The rates were calculated from the International Labor Office's population and labor force projections from 1990 to 2010 at five year intervals. The projections take the demographic structure and participation rates of each region into consideration.

Capital stock in each simulation period is defined as the last period's capital stock plus total investment minus depreciation. Optimizing behavior is not assumed for investment and capital accumulation. The model assumes that all net investments from the previous period are new production capital in the next period.

Accumulation patterns for capital stock depend upon the depreciation rate and the gross investment rate. The latter is set exogenously, based on estimates from the Oxford macroeconomic model (Oxford Economic Forecasting 1999). However, household savings, government surplus (deficit), and foreign capital inflow (foreign savings) are assumed to be perfect substitutes to constitute the source of gross investment in each region.

Household saving decisions are determined endogenously. Household savings represent future consumption goods for the household with a zero subsistence quantity (through the assumption of inter-temporal separable preferences, in an ELES demand structure). The government surplus (deficit) is defined as the difference between government tax revenue and its spending. The latter is fixed as percentage of each region's real GDP based on Oxford model projections. There are no expectations in the model.

Foreign capital inflow or outflow is determined by the accumulation of the balance of trade, which is also fixed as a percentage of real GDP in each region (also based on Oxford model estimates) except the United States (which is allowed to adjust). The model does not include financial markets or portfolio investment. The trade balance is the only source for foreign savings (which can be an inflow or outflow). No explicit specification of foreign direct investment (FDI) is given. However, FDI is captured through trade flows, because in order to convert FDI into production capital stock, technology and equipment have to be purchased via domestic or international trade.

Agricultural labor and urban unskilled labor are not substitutable in production. However, the two types of labor are linked by rural-urban migration flows. These flows are determined endogenously and are driven by the rural-urban wage differential and structural changes in production and trade. The increases in the skilled labor force in each region is based on the growth in the stock of tertiary educated labor in the respective region as estimated by the World Bank (Ahaja and Filmer 1995). These estimates provide an indication of changes in the numbers of those qualified for employment as professional and technical workers. That is, as educational attainment at this level increases, the share of the skilled labor force will grow correspondingly.

The model provides for economy-wide, as well as a set of sector-specific TFP growth variables for each region. The economy-wide TFP variable is solved endogenously by setting the real GDP growth rate in each region exogenously, based on projections from the IMF (IMF 1998) and the Oxford model in the baseline. The economy-wide TFP variable is then fixed when alternative scenarios are simulated. With the economy-wide TFP variable fixed, the growth rate

of real GDP and the sector-specific TFP variables that link productivity and imports are both solved endogenously.

As in other modeling work on the impact of textile and apparel quotas, quota rents are assumed to be captured by exporting countries as export taxes (see, for example, Hertel et. al 1995 and USITC 1999).[2] These export tax rates adjust endogenously to equate with changes in quota levels that are set exogenously when the phase-out of the quotas is being simulated. Such a treatment assumes that all quotas are binding constraints at the equilibrium.

[2] Although there is some evidence that a portion of the quota rents may be captured by importers, empirical work in this area is limited (see discussion in USITC 1999, 35). To the extent that rentsharing exists, the current model results may overestimate the welfare gains estimated for countries such as the United States that are phasing out these quotas.

The base year equilibrium data set is constructed around a World Social Accounting Matrix (SAM) estimated for 1995 based on version 4 of the GTAP database.[3] The model is implemented in GAMS (Brooke, et. al. 1988). To conduct the comparative static analysis in chapters 6 and 7 and the multi-period analysis in chapter 8, we use this recursive dynamic model in order to update the base year from 1995 to 1998. China's most recent tariff schedule (1997), available tariff equivalent estimates of Chinese NTBs, and revised estimates of the tax equivalents of U.S. textile and apparel quotas are fitted to the model during the update. China's initial protection data are shown in appendix E.

[3] Information regarding this type of multi-region SAM and its construction from the GTAP Database is provided in Wang (1994).

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APPENDIX E
Estimate of Nontariff Barriers and Tariff Levels for April 1999 Offer

Table E-1
China's non-tariff barriers for selected products, 1994

Product category	Non-tariff trade barriers
	Percentage
Food:	
Sugar	111.4
Wheat	72.4
Repressed oil	88.6
Beverages:	
Soft drinks	40.6
Inedible raw materials:	
Plywood	26.1
Wool and wool tops	4.2
Synthetic fiber (artificially produced)	7.0
Crude oil	16.7
Natural rubber	12.9
Synthetic rubber (artificially produced)	12.9
Fossil-fuel products:	
Gasoline	18.7
Diesel fuel	26.2
Chemicals:	
Aluminum phosphate plastics (chemically produced)	72.4
Plastics (chemically produced)	11.9
Manufactured goods:	
Rolled-steel final products	23.8
Copper and copper products	7.2
Aluminum and aluminum products	9.5
Transportation equipment:	
Motorcycles	11.2
Autos (sedans)	24.2
Miscellaneous manufactured goods:	
Colored televisions	18.6
Videocassette recorders	46.3
Air conditioners	14.7
Microcomputers	6.0
Color tubes	18.6
Program-controlled switchboards	9.0
Total/average	22.1

Source: Zhang Shuguang, Zhang Yansheng, and Wan Zhongxin, *Measuring the Costs of Protection in China*, (Washington, DC: Institute for International Economics, Unirule Institute of Economics, 1998).

Table E-2
Tariff levels before and after the April 1999 offer

Commodity	Before Offer	After Offer
Wheat	80.0	* * *
Rice	80.0	* * *
Other grain	74.0	* * *
Oilseeds	2.4	* * *
Sugar	66.2	* * *
Cotton	76.0	* * *
Vegetable oils	51.4	* * *
Wool	42.0	* * *
Beverages and tobacco	61.5	* * *
Textiles	31.1	* * *
Wearing apparel	29.0	* * *
Footwear and leather	13.6	* * *
Wood products	9.0	* * *
Paper and pulp	11.4	* * *
Petroleum products	8.4	* * *
Chemicals, rubber and plastics	10.4	* * *
Mineral products	16.6	* * *
Iron and steel	8.3	* * *
Other metals	6.8	* * *
Metal products	14.2	* * *
Motor vehicles and parts	27.6	* * *
Other transport equipment	3.8	* * *
Electronic equipment	10.9	* * *
Other machinery and equipment	13.4	* * *
Other manufactures	27.3	* * *

Source: U.S Department of Commerce.

APPENDIX F
China's Economic Reforms: Historical Background and Current Situation

APPENDIX F
China's Economic Reforms: Historical Background and Current Situation

This appendix provides information on the development of Chinese economic reforms since 1978, other than in the areas of trade and investment policy, as background to the analysis of the effect of WTO accession on China's economic reforms as requested by USTR, which appears in Chapter 6. For a discussion of China's reforms in trade and investment policy, see Chapter 2.

Communist Economic Policies in the Pre-Reform Period

Chinese economic policy has undergone a radical transformation since Deng Xiaoping and his allies took control of the government in 1978. Market mechanisms, flexible prices, and private incentives operate over an increasingly wide sphere of economic decisionmaking. Nonetheless, economic control by both the central and provincial Chinese governments remains strong. It is important to understand that the Maoist version of central planning that emerged after the Communist revolution of 1949 was highly authoritarian, and has been modified only gradually by the current reform movement. This policy of gradual reform contrasts with the "shock therapy" type of reform employed in some Eastern European countries after the fall of Communism in Europe in 1989.

Under central planning, the Chinese government attempted several sweeping top-down transformations of the economy without regard either to economic rationality or individual preferences. During the "Great Leap Forward" (1958-1960), attempts at rapid industrialization emphasized labor-intensive, small-scale technology in rural areas--such as backyard steel furnaces--as well as forcible attempts to organize small-scale rural collectives into larger communes. The Great Proletarian Cultural Revolution, at its most intense during 1966-68, removed intellectuals, bureaucrats and managers suspected of disloyalty to the official ideology and put them to agricultural labor. This attempt at "re-education" forcibly misallocated much of China's human capital. These experiments, often coinciding with other adverse events such as bad weather, led to sharp economic downturns and, in some years, mass starvation. After the deaths of Communist Party Chairman Mao Zedong and Premier Zhou Enlai in 1976, senior Communist Party leaders who had suffered during the Cultural Revolution began to plan a return to power. Deng Xiaoping and his political allies achieved a definitive political victory over the Maoists during the Third Plenary Session of the Communist Party Central Committee in December 1978.[1] Since then, reforms have proceeded at an uneven pace, with periods both of acceleration and of relative standstill. Following a period of policy uncertainty after the 1989 Tiananmen Square demonstrations,[2] the momentum for reform was jump-started by the 87-year-old Deng's "trip to the south" in January 1992, which called attention to the economic successes of foreign-invested enterprises and Chinese private firms in the region. After this trip, the geographical and sectoral scope permitted to foreign enterprises was expanded, and the concept of a "socialist market economy" was added to official Chinese Communist ideology.

[1] Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform, 1978-1993*, (Cambridge: Cambridge University Press, 1995), pp. 74-76; U.S. Department of State Telegram, "China's Second Revolution: Twenty Years On," message reference No. 018602, prepared by U.S. Embassy, Beijing, November 6, 1998.

[2] U.S. Central Intelligence Agency, Directorate of Intelligence, *The Chinese Economy in 1988 and 1989: Reforms on Hold, Economic Problems Mount* (Washington DC: CIA, August 1989), submitted to the Subcommittee on Technology and National Security of the Joint Economic Committee, Congress of the United States.

China's Economic Reforms Since 1978

China's progress in economic reforms over the past two decades can be assessed according to several criteria. For example, to what extent have flexible prices, determined in markets, replaced command-and-control mechanisms for allocating goods, resources, and labor? How much progress has China made in building the types of institutions necessary for the functioning of a market economy? How successful has macroeconomic policy been in avoiding boom-and-bust cycles, and controlling inflation? In an attempt to address these questions, the following section briefly discusses Chinese reforms since 1978 in several areas, specifically goods markets, labor markets, land markets, macroeconomic and exchange-rate policies, and financial markets.

Goods Markets

Agriculture

The first stage of China's economic reforms was the introduction of the "household contract responsibility system" in agriculture.[3] This policy immediately affected a large segment of the population, since approximately 70 percent of the Chinese labor force worked in agriculture in 1978. Since the Great Leap Forward, Chinese agriculture had been organized into large-scale communes that controlled the distribution of output, supplies of inputs to agriculture, and allocations of food and seed to individual farmers. The government also controlled the price and distribution of food to urban areas. Under the responsibility system, individual families were given long-term leases on the plots of land they actually tilled. After paying taxes, fees for irrigation and other social overhead projects, and making compulsory crop sales to the government at fixed prices, families were permitted to keep any surplus crops remaining. In some cases, these crops could be marketed on price-decontrolled markets. The onset of the responsibility system was accompanied by the dissolution of the commune system.[4] Family members were also permitted to engage in some non-agricultural activities that had previously been closed.

The responsibility system has led to a substantial improvement in agricultural productivity and output. However, the general trend towards liberalization has not been uniform; interprovincial barriers to agricultural trade have been alternately raised and lowered, and price controls have been intermittently restored. Because of limited supplies of agriculturally useful water and, secondarily, land, sustaining the increases in agricultural productivity will likely require massive investments in agricultural infrastructure, including irrigation and agricultural research and extension.[5] China has the second-lowest per capita water resources in the world, less than one-third the world average. Of the 640 major cities in China, over 300 face water shortages, with 100 facing severe scarcities of water.[6] Environmental concerns have been associated both with the sanitation and public health effects of the water shortage itself, and with environmental side effects of large-scale public works designed to address the water shortage, such as the Three Gorges Dam project.

Government trading entities continue to be the primary intermediaries between Chinese farmers and users of agricultural products. Beginning in 1994, private grain traders were permitted to operate alongside the government system of grain bureaus. China restored to the government grain bureaus and stations their previous monopoly in purchasing grain from farmers in March 1998, as a response to mounting financial losses experienced by these organizations. State grain trading organizations were also required to reduce their staff from 4 million persons to 1 million persons. These measures have essentially shut out private grain traders. By contrasts, similar losses in the government cotton-purchasing agency, induced in part by increasing import competition for Chinese cotton, have induced a movement towards an increased private sector role. By 1999, the All China Federation of Supply and Marketing Cooperatives (ACFSMC) will no longer be the sole source for purchasing and ginning cotton, and local private companies will be permitted to gin and pack cotton.

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[3] Daniel Kelliher, *Peasant Power in China: The Era of Rural Reform, 1979-1989* (New Haven: Yale University Press, 1992).

[4] Communes were administrative units, approximately the size of an average U.S. county, which simultaneously organized agricultural production, industrial production, and social services.

[5] World Bank, *China 2020: Development Challenges in the New Century* (Washington DC: World Bank, 1997); World Bank, *At China's Table: Food Security Options* (Washington DC: World Bank, 1997).

[6] World Resources Institute, United Nations Environmental Program, United Nations Development Program, and the World Bank, *World Resources 1998-1999* (New York and Oxford: Oxford University Press, 1998), pp. 120-122.

Industry[7]

The Chinese government began to dismantle its system of domestic price controls in 1984. Gradually, the "contract responsibility system" that had been so successful in agriculture was extended to industry. The share of output required to be delivered to government-preferred customers at low regulated prices was lowered, market prices were gradually decontrolled, and the prices fixed for output produced under the central plan were increased. By 1993, the percentage of commodities sold at state-fixed prices was 5 percent for retail commodities, 10 percent for agricultural goods, and 15 percent for capital goods. The government continues to set prices for freight and transport passenger services, but has periodically raised them. The remaining price-controlled output is distributed through the central plan at artificially low prices, with rights to purchase plan output assigned disproportionately to state-owned enterprises.

As a consequence of industrial deregulation, the share of industrial output in government-owned enterprises has gradually declined, from virtually 100 percent in 1978 (77.6 percent state-owned, 22.4 percent collectively owned) to less than 64 percent in 1997 (25.5 percent state-owned, 38.1 percent collectively owned). State-owned enterprises are relatively large in scale and continue to be the most inefficient units in the Chinese economy, incurring chronic and unsustainable losses while simultaneously retaining large numbers of workers and providing them with a broad range of social services.[8] There has been limited privatization, including some sales of shares in state-owned enterprises, which are traded on stock markets in Shanghai and Shenzhen. Collective enterprises, which are organized by local governments at the county, township, and village levels, have increased in relative importance. From 1985 to 1997, the share of individually owned enterprises in industrial output increased from 1.8 percent to 15.9 percent, and the share of foreign-owned enterprises increased from 1.2 percent to 17.0 percent (figure F-1). China continues to use a variety of methods, including import substitution policies, to promote various "pillar industries" chosen by the authorities (see also chapter 4).

Labor Markets

Internal labor mobility in China has historically been restricted by a number of policies. These policies have included the household registration system (*hukou*), which assigns residence permits to families; urban grain rationing, which made it difficult for households to move away from the location in which they had been assigned rations; and the "inheritance" of jobs in state enterprises by families or offspring of incumbent workers (*dingti*).[9] One effect of these policies was to restrict rural-to-urban migration below its voluntary level, leading to overpricing of urban labor and underpricing of rural labor.

The breakup of the commune system in the late 1970s made apparent the large size of the previously disguised surplus labor force in the countryside. A variety of measures have since partially increased flexibility in the labor market. While continuing to restrict internal migration, the government now issues an increasing number of permits for both temporary and permanent rural-to-urban migration, and for some temporary urban-to-rural migration by university graduates, with associated rights to purchase food and to obtain social services.

The present Chinese economy experiences a dual labor market system. At one extreme, small-scale rural industrial enterprises, which have grown rapidly as a byproduct of the responsibility system, appear to enjoy a virtually deregulated labor market. At the other extreme, state-owned enterprises rarely fire workers,[10] pay their workers according to relatively high

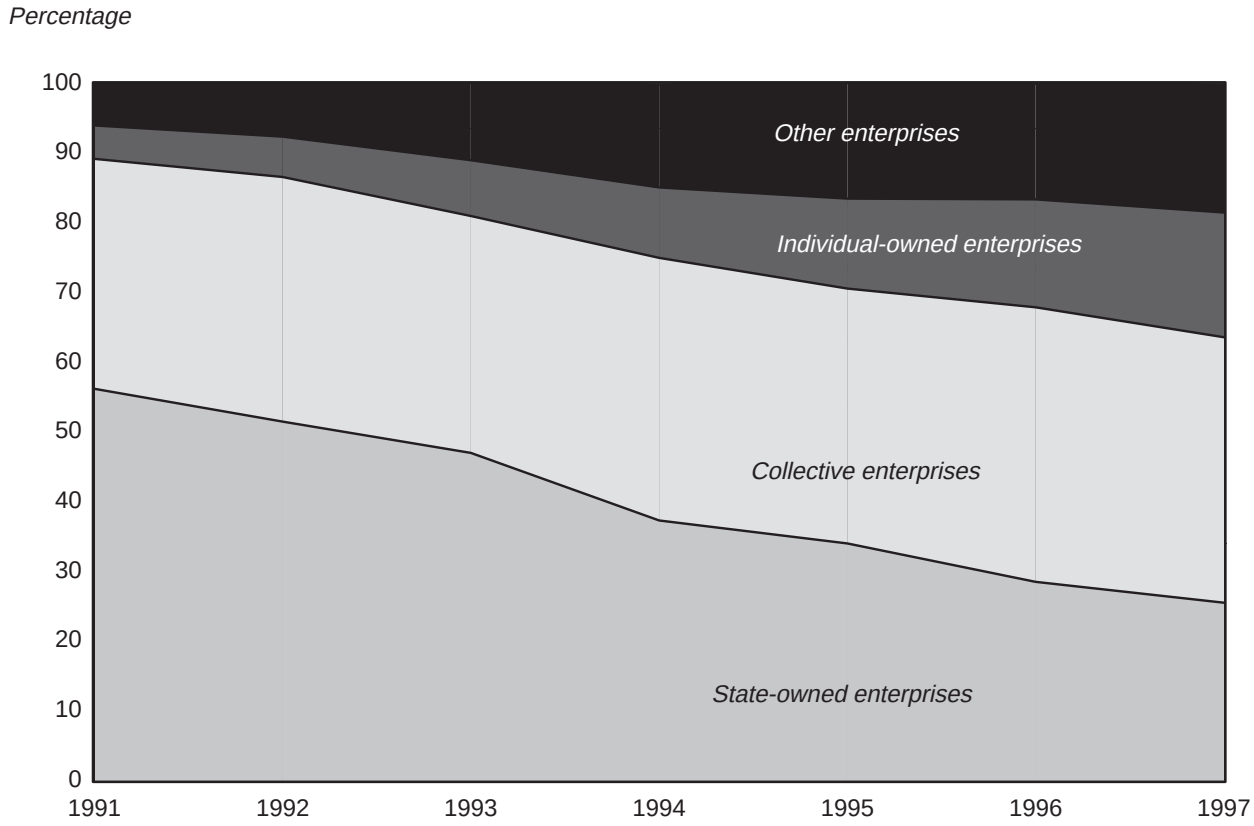
[7] For accounts of the gradual dismantling of China's internal price controls, see Michael Bell and Kalpana Kochhar, "China: An Evolving Market Economy - A Review of Reform Experience," *IMF Working Paper* WP/92/89, November 1992; Nicholas R. Lardy, *China and the World Economy* (Washington DC: Institute for International Economics, 1994), pp. 8-11; and Jean-Jacques Laffont with Claudia Senik-Leygonie, *Price Controls and the Economics of Institutions in China* (Paris: OECD, 1997).

[8] On Chinese state-owned enterprises, see Harry G. Broadman, *Meeting the Challenge of Chinese Enterprise Reform*, World Bank Discussion Paper 283 (Washington DC: World Bank, 1995); Harry G. Broadman, editor, *Policy Options for Reform of Chinese State-Owned Enterprises*, World Bank Discussion Paper 335 (Washington DC: World Bank, 1996); G.J. Wen and D. Xu, editors, *The Reformability of China's State Sector* (Singapore: World Scientific Publishing Co., 1997), and Nicholas R. Lardy, *China's Unfinished Economic Revolution* (Washington DC: Brookings Institution, 1998), particularly chapter 2.

[9] Flemming Christiansen, 'Market Transition' in China: The Case of the Jiangsu Labor Market, 1978-1990," *Modern China* Vol. 18, No. 1 (January 1992), pp. 72-93; Gary Jefferson and Thomas G. Rawlski, "Unemployment, Underemployment and Employment Policies in China's Cities," *Modern China* Vol. 18, No. 1 (January 1992), pp. 42-71; Anjali Kumar, *China: Internal Market Development and Regulation* (Washington DC, World Bank, 1994), pp. 58-64; Lardy, *China and the World Economy*, pp. 11-12.

[10] Since 1986, new recruits to state-owned enterprises can in some circumstances be hired under labor contracts of one to ten years' duration. By 1993, over 21 percent of the urban employees of state-owned enterprises were contract workers. There are exceptions to the rule that new hires should be contract employees, e.g. new hires in coal mining and steel still receive guarantees of lifetime employment.

Figure F-1
Gross value of industrial output, by type of ownership, 1991-97



Source: State Statistical Bureau, People's Republic of China, *China Statistical Yearbook 1998*.

state-determined pay scales, and continue to provide a wide range of social services to these workers even in the face of financial losses, in many cases going deep into debt to finance pension payments and tax obligations. The increasing practice of illegal rural-to-urban migration has added significantly to labor mobility; as of 1990, an estimated 60 to 80 million Chinese "floated" in urban areas with either temporary residence status or no formal residence status at all.[11] Both enterprises and government departments hire transient labor. Transient workers are cheap even by Chinese standards, docile, and increase flexibility for the hiring organization.

The ability of foreign-invested enterprises (FIEs) to hire and fire workers freely and to negotiate wages depends on the outcome of their negotiations with the government prior to project establishment.[12] In general, the Chinese government prefers that FIEs take on as many social welfare obligations as possible. For example, these firms may be required to maintain large payrolls at high guaranteed wages and with guarantees against dismissal, and pay for pensions, unemployment insurance, health care and other social welfare benefits in a manner similar to state-owned enterprises. FIEs report that negotiations on these topics often lead to undesirable outcomes, such as excess staffing levels, loss of control over salary negotiations, unclear demarcation of hiring authority between foreign and Chinese joint venture partners, inability to monitor the labor practices of subcontractors, and inability to move employees geographically. These outcomes are usually much harder to alter after the initial negotiations, once the enterprise is established.

A significant number of Chinese workers are employed in a variety of forced labor arrangements known collectively as the Laogai ("reform through labor"), including prisons, Laogai camps, Laojiao ("reeducation through labor") camps and juvenile criminal camps. Noted dissident Harry Wu, executive

[11] Kumar, *China: Internal Market Development*, p. 60.
[12] Daniel H. Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace* (Washington DC: Institute for International Economics, 1999), chapters 2 and 3.

director of the Laogai Research Foundation, estimates that there are at least 1,100 Laogai camps[13] of various types employing approximately six to eight million workers.[14] Like transient labor, Laogai labor is believed to be inexpensive relative to other Chinese labor. The Laogai system produces a wide variety of goods, including tea, rubber vulcanizing chemicals, chain hoists, cotton, steel pipe, auto components, hand tools, expandable graphite, clothes, binder clips, brake rotors, and Christmas tree lights, of which some are exported.[15] On August 7, 1992, the United States and China signed a memorandum of understanding (MOU) to ensure that prison labor products were not exported to the United States. U.S. disputes with China over the implementation of the MOU led to the signing of a new agreement on March 14, 1994, which was meant to provide for U.S. inspections of Chinese production facilities that export prison labor products. A fact sheet released by the U.S. State Department on June 17, 1997, stated that "Chinese cooperation (with the prison labor MOU) has not been satisfactory, but may be improving."[16]

Land Markets

China has taken a number of steps to make the allocation of land more responsive to market incentives, though these measures generally have not taken the form of pure private ownership of land as understood in the United States.[17] Initially, the state leased land to households participating in the responsibility system, some of which came from the dissolution of communes. The length of terms of these leases has increased over time, and the government has made them formally transferable. After 1989, some agricultural land reverted to the management of collectives, which in turn have leased it out through bidding.

In the urban real estate sector, the government has introduced some land leasing and permitted the establishment of for-profit real estate enterprises.[18] In both the urban and rural sectors, lease prices and prices for informal or black-market land transactions reveal the value of land in alternate uses. With respect to housing, most workers continue to obtain housing assignments through work units or municipalities. The work units (*dan-wei*) have been an important instrument of Communist social control,[19] which has weakened somewhat with increased employment opportunities outside the *dan-wei*. Some experimentation in housing reform began in Shanghai in 1991, including the issuance of housing bonds to renters and raising of rents to cover costs.[20]

Macroeconomic Policies and Exchange-Rate Policies

While China's explicit government budget deficit is not particularly large (0.8 percent of GDP in 1997), implicit government obligations are much larger. These include implicit guarantees to bail out insolvent banks and to take on the rapidly growing social spending obligations of insolvent state-owned enterprises. By one estimate[21] these implicit obligations may have ranged from 8.0 to 9.2 percent of Chinese GDP in 1995. Explicitly financing such a deficit would amount to doubling the explicit central government budget in the short run. A doubling of taxes to cover such a deficit is infeasible, particularly since the central government has had increasing difficulty in collecting already existing tax obligations.

The Chinese currency at the official exchange rate was considerably overvalued during the Maoist regime, and remained so in the early years of reform.[22] China introduced a dual exchange rate in 1981, introducing an "internal settlement rate" for authorized foreign trade transactions. Such transactions thus experienced an effective 40 percent devaluation, while foreign remittances and tourist expenditures continued to take place at the overvalued official exchange rate. A second devaluation of approximately one-third against the U.S. dollar was implemented in 1994, when the official exchange rate was unified with the exchange rate established in a swap market that began operating in 1985. The rights of both foreign and domestic

[13] Harry Wu, testimony before the European Parliament, Committee on Foreign Affairs, Security and Defense Policy, Subcommittee on Human Rights, public hearing on "The Social Clause: Human Rights Promotion or Protectionism?," June 18, 1997.

[14] Harry Wu, statement before the U.S. Senate Foreign Relations Committee, May 21, 1997.

[15] Wu, European Parliament testimony, ibid., and Senate Foreign Relations Committee testimony, ibid.

[16] Wayne M. Morrison, Economics Division, Congressional Research Service, *CRS Issue Brief for Congress 91121: U.S.-China Trade Issues*, November 10, 1998.

[17] Lardy, *China and the World Economy*, pp. 12-13.

[18] Bell and Kochhar, ibid.

[19] James R. Lilley and Wendell L. Willkie II, editors, *Beyond MFN: Trade with China and American Interests* (Washington DC: American Enterprise Institute for Public Policy Research, 1994), p. 6.

[20] Bell and Kochhar, ibid.

[21] Lardy, *China's Unfinished Economic Revolution*, pp. 161-162.

[22] For discussions of Chinese exchange rate policy, see U.S. Department of the Treasury, *Annual Report to Congress on International Economic and Exchange Rate Policy*, various years.

enterprises to purchase and sell foreign exchange have expanded gradually over time, with foreign enterprises generally having easier access to foreign exchange.

At present,[23] convertibility of the Chinese currency–the renminbi–on the current account is greater than on the capital account. On the current account, foreign-invested enterprises may retain their export earnings as long as these do not exceed the maximum for a foreign-exchange surrender account; otherwise, the balance must be sold. Domestic enterprises sell most of their export earnings to designated banks; since October 1997, larger foreign trade enterprises have been allowed to retain 15 percent of the value of their foreign trade (exports plus imports) of the previous year. The requirement that domestic foreign trade enterprises sell most or all of their foreign exchange to the main Chinese banks has contributed to the rapid expansion of Chinese foreign exchange reserves. Enterprises importing into China must provide extensive documentation of import transactions to the authorities and obtain numerous permits before they can either obtain foreign exchange or buy imports out of any foreign exchange accounts they may own. Chinese policies of foreign exchange allocation thus provide a powerful instrument for controlling the aggregate volume of imports as well as the type of goods imported.

On the capital account, foreigners are prohibited from buying and selling bonds and other debt securities, and may not sell or issue stock in China. Foreigners may not buy stock in China, with the exception of foreigners-only "B" shares denominated in renminbi and listed on the Chinese Securities Exchange. Chinese enterprises require government approval to engage in capital account transactions in stocks and bonds. Chinese individuals are not permitted to buy foreign stocks and bonds.

The IMF currently characterizes China's regime as "managed floating." The renminbi is pegged daily by the People's Bank of China (PBC) and trades on an interday basis within specified limits. U.S. officials have periodically raised concerns about Chinese intervention in the exchange rate. The exchange rate has fluctuated in a narrow band from about RMB 8.27-8.30 to the dollar since late 1996. Since the sharp devaluations of other Asian currencies in late 1997, there has been widespread speculation as to whether China would devalue. China continues to possess very large foreign exchange reserves (about $148 billion in October 1998), and its authorities maintain that China does not intend to devalue.

Since September 1998, China issued a number of changes to its foreign exchange policy in the form of "circulars" issued by the State Administration of Foreign Exchange (SAFE) and the PBC.[24] These circulars affect all businesses in China which may have foreign-exchange transactions, both domestic and foreign. The details of these circulars have not been readily available to the companies affected and they have not been administered transparently. Their apparent purpose is to reduce smuggling, corruption and fraud. U.S. businesses operating in China have reported widespread difficulties in exporting, importing, and making and receiving payments, and have delayed or canceled planned investments involving foreign currency.

Financial Markets[25]

In the early stages of reform, a single institution, the PBC continued to perform most individual, commercial, and central banking functions simultaneously, with some specialized banks operating in narrowly delimited fields. In 1984, the PBC lost its commercial banking functions and became a true central bank, gradually taking on various central bank functions. Specialized banks (e.g. the Agricultural Bank of China, the Construction Bank, and the Industrial and Commercial Bank) were permitted to engage in commercial banking, and by 1986 all banks were permitted to engage in foreign transactions. Competition by banks across their defined specializations was also gradually diminished. China has continued to charter new commercial banks, and nonbank financial institutions, including rural and urban credit cooperatives under the supervision of the main banks, and regional banks which vary in their geographical scope of operations. These newer institutions have been increasingly permitted to lend based on commercial considerations rather than on state policy considerations. Interest-rate competition among banks is limited, with most competition taking the form of provision of services. China's first private shareholding bank, the China Minsheng Bank, opened for business in 1996. Some unauthorized private banks

[23] International Monetary Fund, *Exchange Arrangements and Exchange Restrictions* (Washington DC, IMF, 1998); position as of January 31, 1998. The situation as stated in this paragraph does not reflect the foreign exchange circulars referenced below.

[24] The United States-China Business Council, *Impact of Recent Foreign Exchange Circulars on U.S. Companies*, December 1998, found at Internet site http://www.uschina.org/public/fxsurveyresults.html, retrieved January 14, 1999.

[25] See Lardy, *China's Unfinished Economic Revolution*, particularly chapters 3 and 4; Eric Girardin, *Banking Sector Reform and Credit Control in China* (Paris: OECD, 1997); and Zhu Huayou, *Reforming China's Financial System* (Beijing: Foreign Languages Press, 1996).

have emerged, which pay higher interest rates to depositors and extend credit at higher interest rates to borrowers having difficulty in borrowing from the state banking system. The Chinese authorities have periodically cracked down on unauthorized private banks in different cities.

State-owned banks and other financial institutions have extended new loans at a rapid pace, accounting for much of the accelerated money supply growth in the post-reform period. A large share of these loans has gone to state-owned enterprises which have accumulated expanding arrears both on bank loans and on tax payments to the government. Chinese bank regulation has historically permitted banks to carry large amounts of loans on their books which in a more advanced banking system would be treated as non-performing and written off.

In October 1998 China closed Guangdong International Trust and Investment Corporation (GITIC), a large provincial bank operating under the Guangdong provincial government, for inability to pay matured debts. In January 1999 the Guangdong provincial government sought bankruptcy for GITIC, in what could be the biggest bankruptcy in the history of the People's Republic. GITIC had been an important trader on international capital and foreign-exchange markets. In winding up GITIC, the authorities are seeking to protect depositors first and have told foreign lenders that they are unlikely to recover any funds, warning international banks not to lend to Chinese banks or firms without state approval.[26] An ongoing investigation into financial mismanagement could similarly close down Guangzhou's International Trust and Investment Corporation.[27] In April 1999, China established a debt resolution firm, Xinda Asset Management, to dispose of bad loans of China Construction Bank, one of the largest banks owned by the central government. If Xinda is successful, similar firms could be set up for other state-owned banks.[28] In May, the Chinese government proposed an overhaul of the debts of Guangdong Enterprises, a state-owned enterprise, in which the government shares losses with foreign creditors.[29] The treatment of foreign creditors in this case is perceived as substantially more favorable than in the GITIC bankruptcy. By May, shares in the "red chip" index of state-owned enterprises traded on the Shanghai stock exchange had recovered by approximately 30 percent since their January low.

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[26] CNNfn, "China Cautions Overseas Banks," at http://cnnfn.com/worldbiz/asia/wires/9901/14/gitic_wg, January 14, 1999. It should be noted that if foreigners believe this method of dealing with bankruptcies will be the general practice in China, then the "moral hazard" problem associated with IMF lending in other countries will not exist. That is, if foreigners believe that there is no implicit guarantee of Chinese bailouts which insure foreign loans, either funded within China or from IMF loans, they will then conduct their lending based on a pure assessment of all foreseeable risks as uninsured risks, and voluntarily limit such lending.

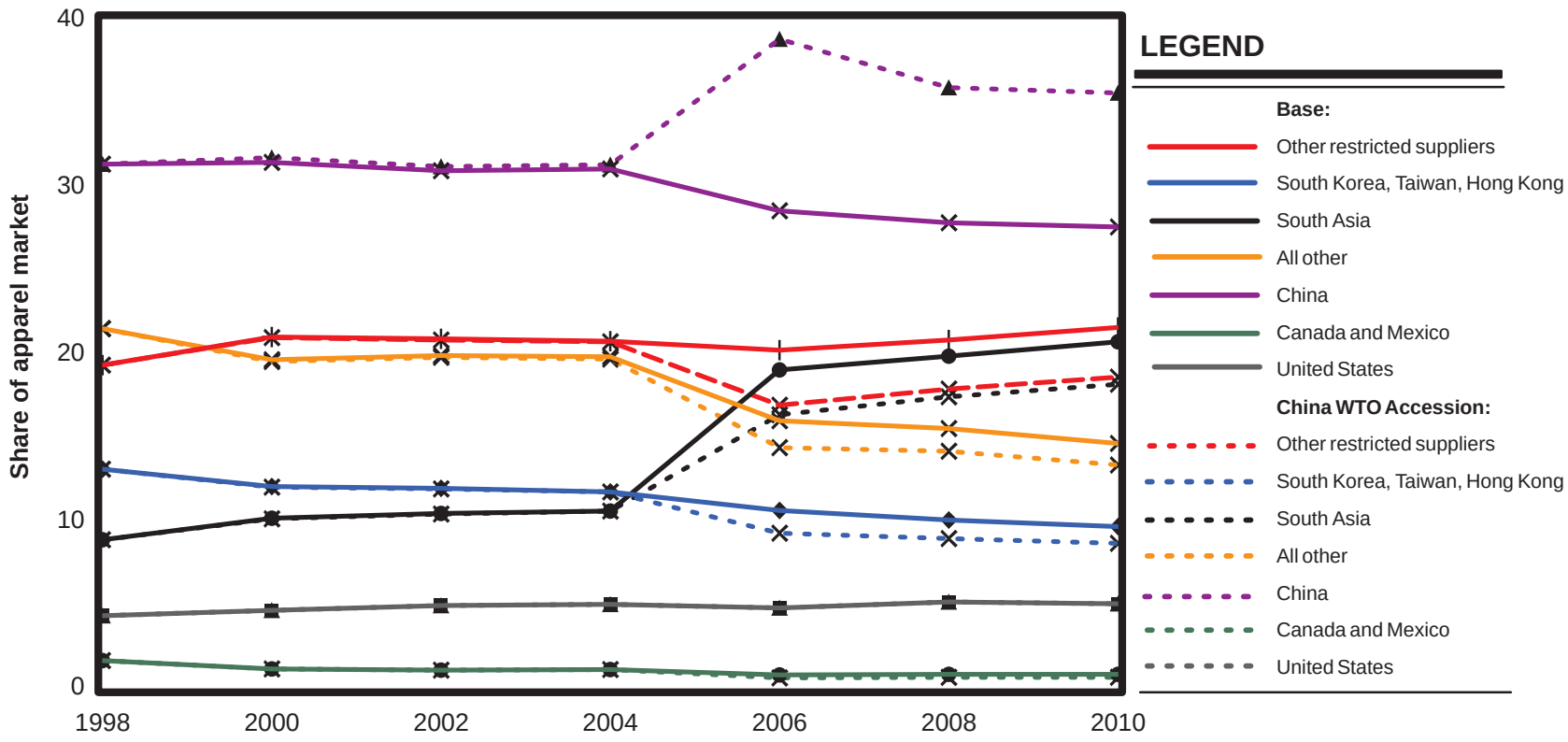
[27] "China: What's Going Wrong," *Business Week*, February 22, 1999, p. 50.

[28] "Business This Week," *The Economist*, April 24, 1999, p. 5.

[29] Mark Landler, "China to Overhaul a Heavily Indebted State Company," *The New York Times*, May 26, 1999.

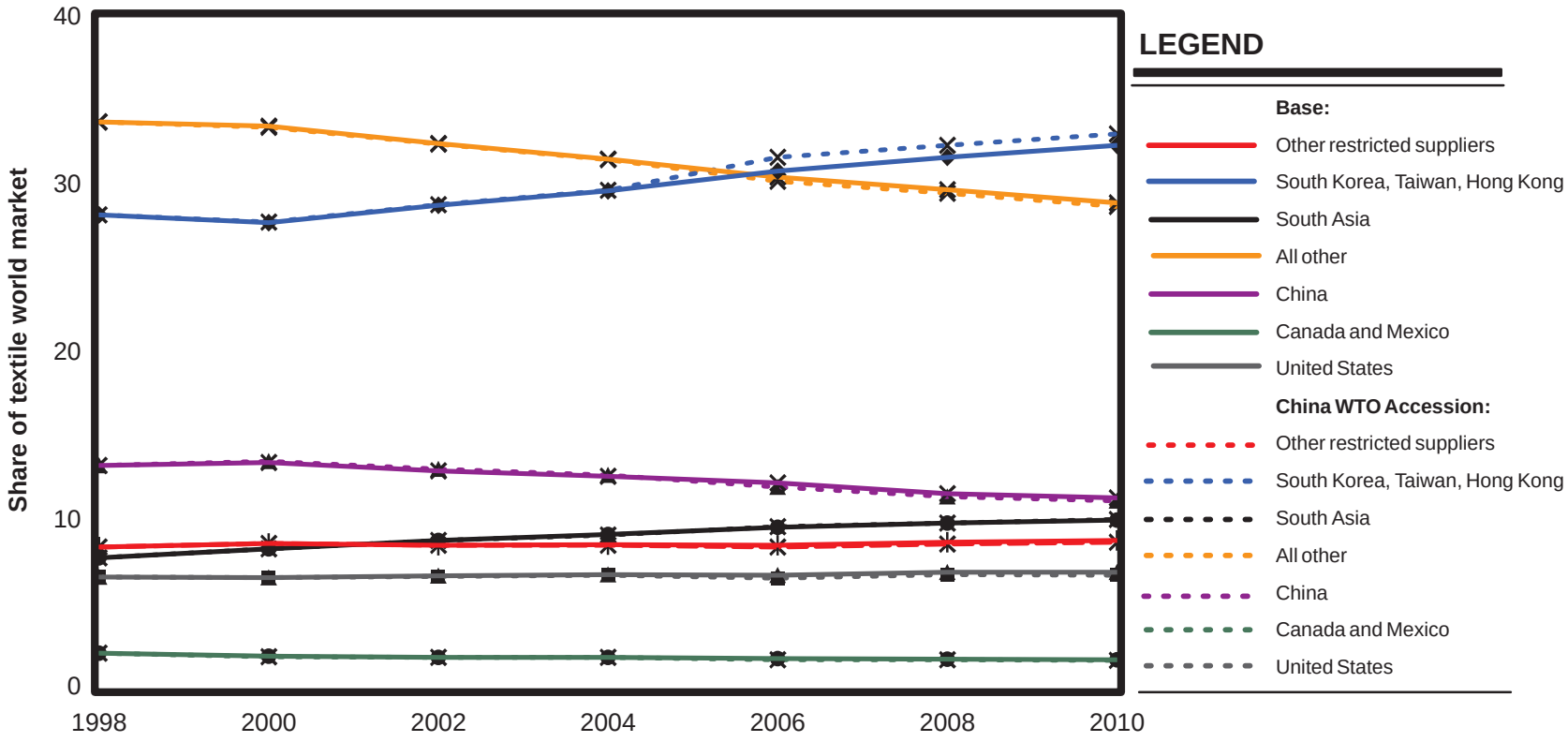
APPENDIX G
Additional Textile and Apparel Market Share Information

Figure G-1
Share of world apparel market: 1998-2010



Note.—Other restricted suppliers include two model regions: ASEAN and "other restricted suppliers." Rest of the world includes four model regions; the EU, Japan, others developed countries, and "all other countries."
Source: Based on USITC staff estimates.

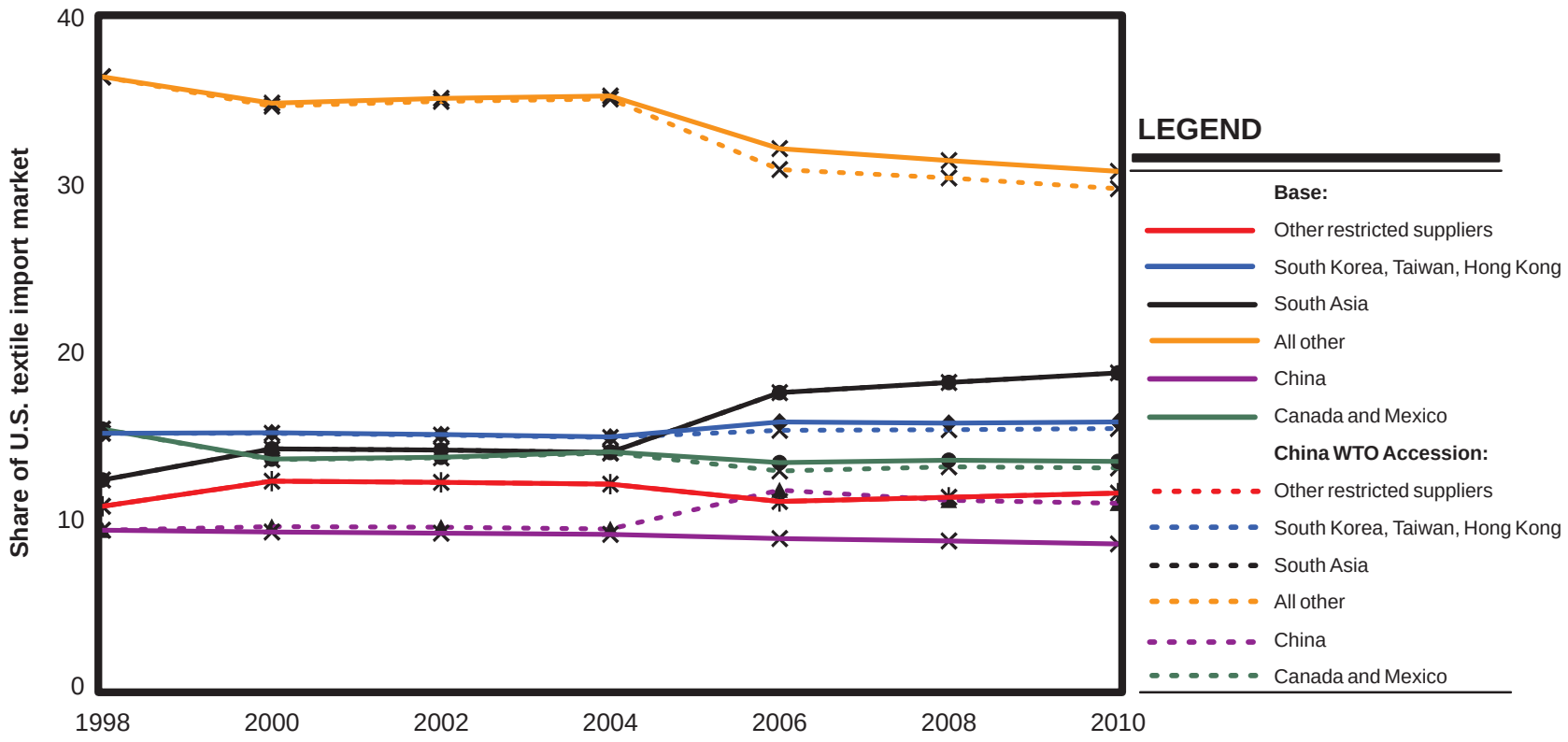
Figure G-2
Share of world textile market: 1998-2010



Note.—Other restricted suppliers include two model regions: ASEAN and "other restricted suppliers." Rest of the world includes four model regions; the EU, Japan, others developed countries, and "all other countries."

Source: Based on USITC staff estimates.

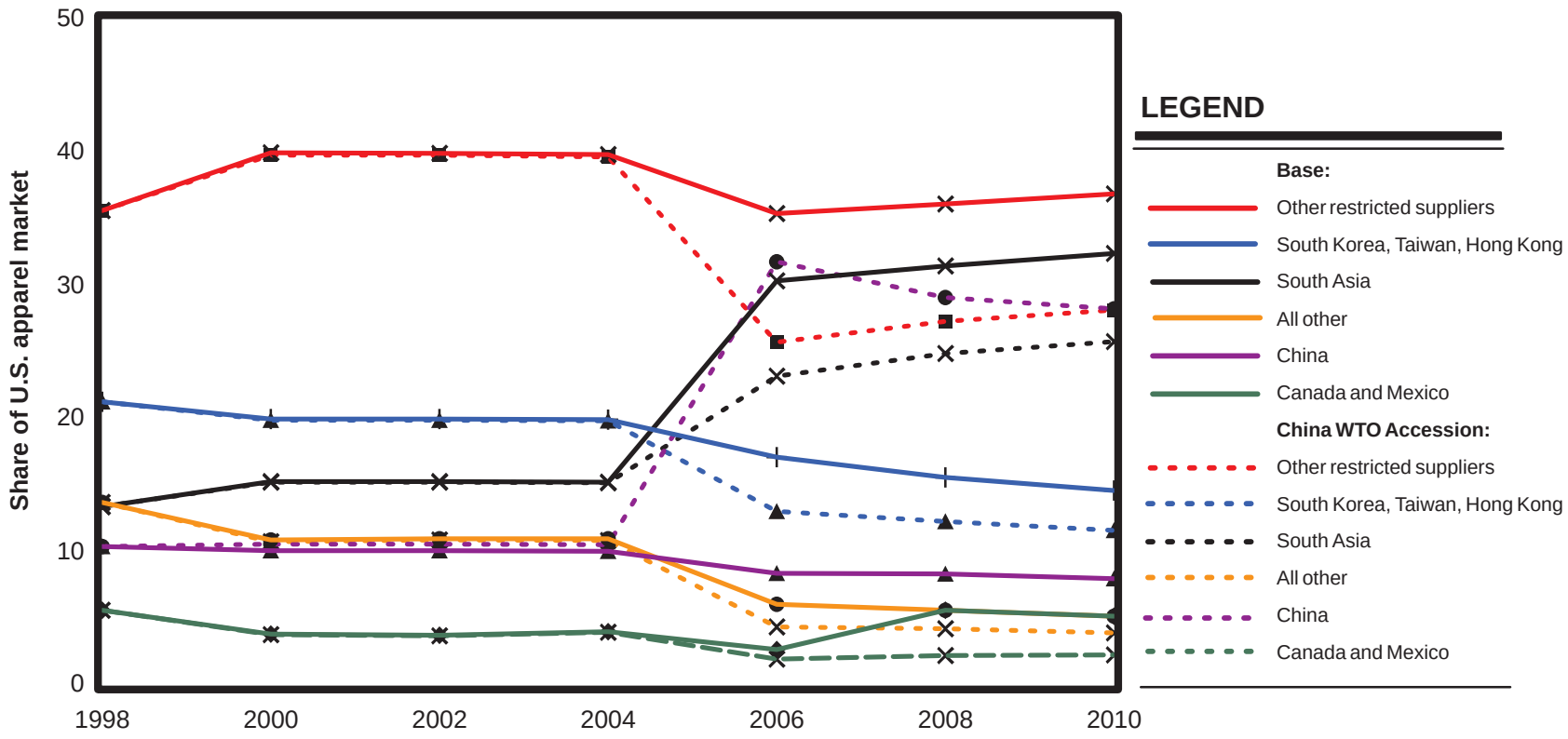
Figure G-3
Share of U.S. imports of textiles 1998-2010



Note.—Other restricted suppliers include two model regions: ASEAN and "other restricted suppliers." Rest of the world includes four model regions; the EU, Japan, others developed countries, and "all other countries."

Source: Based on USITC staff estimates.

Figure G-4
Share of U.S. imports of apparel market: 1998-2010



Note.—Other restricted suppliers include two model regions: ASEAN and "other restricted suppliers." Rest of the world includes four model regions; the EU, Japan, others developed countries, and "all other countries."
Source: Based on USITC staff estimates.

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