The Beginning of the End: A First Look at Textile and Apparel Trade after the Agreement on Textiles and Clothing (ATC)

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A thesis presented in partial fulfillment of the requirements for completion
Of the Bachelor of Arts degree in International Studies
Croft Institute for International Studies
The University of Mississippi

University, Mississippi
May 2009

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Abstract

Susan Lawrence: The Beginning of the End: A First Look at Textile and Apparel Trade after the Agreement on Textiles and Clothing (Under the direction of Dr. Ali Gungoraydinoglu)

The Multi Fiber Arrangement (MFA) governed apparel and textile trade for over three decades. Quotas on textile exports to the United States caused trade distortions that generated welfare losses for American consumers and Chinese producers. Through national welfare accounting, this paper demonstrates the impact of the removal of MFA quotas. The welfare of American consumers, Chinese producers, and Chinese workers has increased since quotas were removed. At the same time, increased competition caused job losses and welfare losses for American producers.

Although the number of countries exporting textiles and apparel to the United States has increased since the ATC ended, a small number of countries have become the dominant exporters. China has become the largest exporter, and its real trade gains have already exceeded previous estimates. Chinese gains have come at the expense of past major suppliers in South Korea, Taiwan, the Dominican Republic, and Hong Kong.

After an initial surge, growth rates of Chinese exports have slowed. Several other producers including India, Bangladesh, Vietnam, Cambodia, and Sri Lanka also increased production after the quotas ended. A combination of trade preferences and low wages has helped these suppliers gain market share in the United States. Their growth rates in the face of competition with China indicate healthy, developing textile and apparel industries. These producers will become new "go-to" suppliers in the future.

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AGOA	African Growth and Opportunity Act
ASEAN	Association of Southeast Asian Nations
ATC	Agreement on Textiles and Clothing
ATPDEA	Andean Trade Promotion and Drug Eradication Act
BLS	United States Bureau of Labor Statistics
CAFTA	Central American Free Trade Agreement
CBTPA	Caribbean Basin Trade Partnership Act
CITA	Committee for Implementation of the Textile Agreements
DOZ	Dozen
DPR	Dozen pair
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
KG	Kilogram
NAFTA	North American Free Trade Agreement
M2	Square Meters
M/B	Men's and boys'
MFA	Multi Fiber Arrangement
MMF	Manmade Fiber
SME	Square Meter Equivalent
T&C	Textiles and clothing
USD	United States Dollars
W/G	Women's and girls'
WTO	World Trade Organization

2. Introduction

According to WTO estimates, world production of textiles and apparel totaled over $584 billion US in 2007. Exports of in these two categories represented 4.2 percent of total world trade (WTO 2008). One hundred eighty nine countries and territories exported textiles or apparel to the United States in 2008 (OTEXA). In developed countries, producers tend to be well organized and active in trade negotiations (Finger and Harrison 1994). Textiles and apparel have also played an important role in the economies of developing countries. Developing countries often have a comparative advantage in apparel production. Requirements of capital and skilled labor are low, thus apparel industries have served as a catalyst for early industrial development. T&C exports helped drive early export growth in many East Asian countries including Hong Kong, Taiwan, Singapore, South Korea, Malaysia, China, Vietnam, and Indonesia. Furthermore, statistical evidence indicates that per capita incomes are higher in countries that have robust textile and apparel sectors (Diao and Somwaru 2001).

Textile and apparel exports to the United States were restricted by a system of import quotas for over 30 years. This system, called the Multi Fiber Arrangement, disrupted the natural flow of textile and apparel trade. The effect of protectionism on consumer welfare was great: studies have estimated that the agreement cost consumers over $70 billion (Financial Times, 19 July 2004).

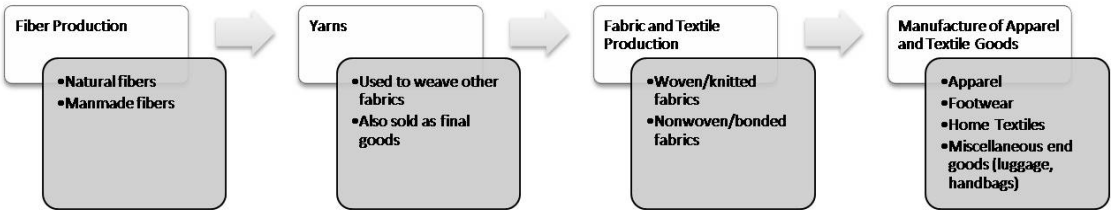
This paper will examine changes in welfare and exports after the end of the Multi Fiber Arrangement. The first section provides background information

on textile production and the Multi Fiber Arrangement. Section Two uses national welfare accounting to explain gains of free trade in textiles and apparel. Section Three examines the changes in the structure of imports since the end of quotas. The final section examines China's competitive advantage in textiles through case studies of specific export categories.

2.1 The Production Process

The production of textiles and apparel is a multi-phase process. Manufacturing begins with the production of fibers. Factories produce natural and manmade fibers from raw materials such as cotton, silk, hemp, or chemicals. These individual fibers are then processed into string, formally known in the industry as yarns (Abernathy 1999). Finished yarns are then woven or knitted together to create many kinds of raw fabrics. After weaving the finished fabrics are dyed and sent to apparel producers. The producers take the fabrics and sew clothing, footwear, home textiles, and other products that are made of fabric, such as luggage. These products are collectively known as textiles and clothing or textiles and apparel exports. Figure 1 is a flow chart of the textile and apparel complex.

Fig. 1 Textile and Apparel Production



2.2 American and Chinese Textile and Clothing Industries

Until the early 19th century, the world's most sought-after cotton textiles came from India. Indian weavers used spindles that produced strong, finely woven textiles, while Europeans employed spinning wheels that wove weaker fabrics. Europeans gained an advantage in textile production when James Hargreaves produced the spinning 'jenny'. Improvements on Hargreaves' machine spinner led to the development of looms that produced strong, fine threads and yarns. British weavers tried to preserve their trade secret, but the technology quickly spread to the United States. By 1850, the United States had become a major exporter of cotton textiles (Schoeser 2003).

After the Global Agreement on Tariff and Trade (GATT) was signed in 1947, American T&C producers saw a large increase in competition from developing countries. Since then American textile and apparel production has declined significantly. In 2007 American textile exports decreased to $12.4 billion, and apparel exports decreased to $4.3 billion. Together textile and apparel exports represented only 1.5 percent of all American exports. In the same period, American T&C imports totaled almost $109 billion, 5.4 percent of total

American merchandise imports (WTO 2008). According to the Bureau of Labor Statistics, in 2007 only 527,000 American workers were employed in textile and apparel production, 50 percent less than in 2000. The average level of import penetration for all T&C categories is over 91 percent (Sandler 2006). Currently, China, Mexico, the European Union, India, Vietnam, and Indonesia are the top T&C exporters to the United States (OTEXA).

In the past decade, Chinese T&C industries have experienced a period of sustained growth, but textiles have been an important industry in China for over a thousand years. China was the first producer of both silk and ramie fabric. As early as 20 BCE, Chinese silks reached Europe through Silk Road trade routes. From the 17th to 20th centuries, European demand for "oriental" style patterns supported the development and growth of export-oriented Chinese textile factories. By the 1890s large-scale industrial spinning factories existed in China, most of which were owned by Japanese and British investors. During this period cotton spinning and weaving was China's largest domestic industry (Waddle 1988).

Today Chinese textile and apparel industries are the world's largest. Most factories produce textiles and apparel designed by foreign clients, and most garments are in the low-to-moderate price range (Gu 1999). In 2007 4.7 million workers were employed in textile and apparel production, up from 3.9 million in 1995 (China Statistical Yearbook 2008 and Gu 1999). Production for export is concentrated in the coastal regions, specifically Zhejiang, Shandong, Jiangsu,

Fujian, and Guangdong provinces. Textile and apparel exports represented 14.1 percent of China's total exports in 2007. These were valued at $171.1 billion, almost 30 percent of the total value of world T&C exports (WTO 2008).

2.3 History of the MFA and ATC

The earliest forms of special protection for textiles began in the 1930s. As early as 1936, American producers lobbied for increased protection from Japanese exports. Facing the possibility of a 42 percent tariff increase on Japanese textiles, Japan agreed to voluntarily limit exports of several textile products. The agreements specified export limits, defined measurement methods, and created committees to resolve potential conflicts. The negotiated level of protection was on par with protection offered to other American industries (Finger and Harrison 1994).

The signing of the GATT and the subsequent removal of trade barriers spurred the growth of textile and apparel industries in developing countries. At the time textile and apparel imports represented only three percent of total American imports, but surges of imports were concentrated in a small number of sectors. The concentrated nature of imports was a catalyst for American opposition (Finger and Harrison 1994). By the mid-1950s, the American T&C firms appealed for additional protection from these cheaper imports. Under GATT's Article XIX "escape clause", member countries could implement tariffs to control imports if "any product is being imported into the territory of that contracting party in such increased quantities and under such conditions as to

cause or threaten serious injury to domestic producers in that territory" (GATT Article XIX 1[a]). Producers in the United States insisted that cheap textile imports were causing "serious injury" to domestic textile industries. American trade officials, wary of implementing tariffs, instead negotiated a series of bilateral and multilateral agreements on textile exports. The United States signed an agreement with Japan in 1956, requesting that the latter voluntarily restrain cotton exports. The export restraints proved ineffective, and both synthetic and cotton fabric exports surged past their pre-1956 levels. Multilateral talks led to the Short Term Agreement on Cotton Textiles (STA), signed by 30 countries in 1961. The Long Term Agreement Regarding International Trade in Cotton Textiles (LTA) replaced the STA in 1962 (Goldstein 1993).

In the late 1960s, production of manmade fibers increased. American producers called for a new agreement, designed to cover a wider range of materials than the cotton agreements covered (Chiron 2004). In response the Multi-Fiber Arrangement (MFA) was signed in 1974. At its signing the MFA was touted as an agreement that provided access to developed nations' T&C markets while limiting damage to domestic apparel industries. The quotas ensured that every nation had an opportunity to export to the United States but limited the supply of exports. Although it was designed as a temporary measure, the agreement was renegotiated four times over 20 years. The system of textile import quotas established by the MFA lasted until 1994.

Setting quota levels was a complex, non-transparent process. First,

American producers who faced competition from imports petitioned the Committee for Implementation of the Textile Agreements (CITA). CITA was composed of representatives from the departments of Commerce, State, Labor, and Treasury, plus members from the office of the Trade Representative. The committee investigated claims to determine if imports caused "market disruption", the MFA prerequisite for quota safeguards. If CITA agreed that imports could potentially disrupt domestic markets, it prepared its own report and referred the case to the US Trade Representative. For each case the United States named an initial quota, but MFA rules required the United States to negotiate a final quota with the exporting country. Final quotas were often double the initial quotas (Finger and Harrison 1994). Each year quotas were adjusted by a known, specific rate. Although quotas increased by 6 percent on average, Chinese quotas were often increased by less than 2 percent per year (Brambilla, et al 2007).

Quotas did not restrict exports for all countries. Most countries exported much less than their quotas allotted. During the ATC period, only China, India, Indonesia, Pakistan, and Bangladesh faced quotas that restricted more than 50 percent of their export categories. Twenty-nine countries were affected by at least one "binding" quota category (Brambilla, et al 2007).[1]

[1] When exports of a good approach 100 percent of a quota allocation, firms curtail production in anticipation of the quota being filled. As a result, quotas that are not filled 100 percent still limit exports. Most studies suggest quotas begin to restrict or "bind" exports if a country fills more than 90 percent of its allotted quota.

By the early 1990s the quota system had become a major barrier to apparel and textile trade. Firstly, apparel sourcing and marketing patterns became more complex than they were when the MFA was negotiated, and the relatively static quota system was not suited to the fast-changing needs of large apparel retailers (Abernathy 1999). These retailers were unhappy with restraints on apparel sourcing that raised prices. Secondly, efficient producers in developing countries were constrained by the quotas and forced to direct production to other, less efficient countries (Diao and Somaru 2001). Thirdly, developing countries retaliated against MFA quotas with protection for their own industries, closing off markets for American T&C firms. Finally, though American producers won protection through quotas, the quotas were not high enough to completely prevent job losses (Finger and Harrison 1994).

During the Uruguay Round, member nations reached an agreement to phase out textile and apparel quotas. The agreement, signed in 1995, was called the Agreement on Textiles and Clothing (ATC). In the agreement, members were required to remove quotas on products in all four sectors of textile and apparel production: yarn, fabrics, textile products, and clothing. Member countries agreed to phase out quotas in four stages. In each phase, a set volume of T&C imports was integrated into WTO rules. Member nations used the amount of textiles imported in 1990 as the base year. In addition to integrating protected products, members agreed to raise the quota allowances on remaining protected products.

Figure 2. ATC Phases of Integration

Date	Minimum Percent of Products Integrated (by volume)	Accumulated Percentage of Integrated Products (by volume)	Growth rate of quotas
1-1-1995	16	16	16%
1-1-1998	17	25	Increase 25%
1-1-2002	18	51	Increase 27%
1-1-2005	49	100	Quotas end

On January 1, 2005, the ATC was terminated and quotas were officially abolished. Only Canada, the European Union, Norway, and the United States maintained quota restrictions during the ATC (Nordås, 2004). The ATC process was designed to liberalize textiles and apparel trade in stages, but most categories, especially high-value industries, were not released from quota restrictions until the last stage. Products were integrated by percentage of total import volume, rather than value or percentage of MFA categories. This allowed the United States, the EU, and Canada to integrate a small number of high-volume, low value categories while complying with the ATC. For example, the United States maintained quotas in 758 categories before the ATC was negotiated; in the first three phases, it only phased out 57 of the categories (Nordås, 2004). This left 93.5 percent of quota categories intact until the last stage.

Textile and apparel trade is still affected by preference programs, free trade agreements, and tariffs. The United States maintains four trade preference programs: the African Growth and Opportunity Act (AGOA), the Andean Trade Promotion and Drug Eradication Act (ATPDEA), the Caribbean Basin Trade

Partnership Act (CBTPA), and the Haitian Hemispheric Opportunity Through Partnership for Encouragement Act (HOPE Act). Textile and apparel imports from countries with trade preferences receive duty-free status. NAFTA, CBTPA, and ATPDEA all contain rule-of-origin clauses stipulating duty-free items must be made from North American fabric (for NAFTA) or US-made materials (for CBTPA and ATPDEA). In addition to trade preference programs, the United States has signed eleven free trade agreements, all of which allow duty-free entry for textile and apparel products.

As a part of its application for WTO membership, China agreed to allow quotas on its exports until 2013. In November 2005 China and the United States signed the Memorandum of Understanding Concerning Textile and Apparel Products. China agreed to continued quotas on 22 categories of apparel, and the United States agreed to phase out remaining quotas by the end of 2008.

2.4 Literature Review

Multiple factors influence sourcing for textile and apparel production. Labor costs, product quality, labor productivity, shipping times and reliability of producers are all important factors in sourcing decisions (Abernathy 1999, Applebaum 2004). Before 2005 quotas were also a major factor in the textile and apparel sourcing. The implementation of MFA quotas had a distorting effect on textile and apparel trade.

First, the availability of quotas dispersed textile and apparel production. Without quotas firms can capitalize on economies of scale by consolidating

production. Quotas limited exports from single sources, thus limiting the benefits of large-scale production. In order to bypass quota restrictions, major producers including Hong Kong, China, Taiwan, Japan, and South Korea directed production to other countries when their own quotas were almost exhausted. These countries would not otherwise have exported apparel and textiles to the United States (Moore 2003).

Secondly, quotas increased the prices of apparel and textiles. Quotas directly raise the price of imports because quota rights are usually sold to producers, who must add the cost of acquiring quotas to the cost of their products. Quotas also indirectly raise the price of imports because the quantity of imported goods is limited, therefore raising prices of imports. Harrington and Barrows (2006) estimated the higher prices cost each American household $90 USD per year.

Finally, the quotas protected jobs in developed countries at the expense of jobs in developing countries. The International Monetary Fund estimated that each T&C-related job "saved" by quotas in developed countries cost developing countries 35 jobs. Before quotas were liberalized, the IMF predicted the freer flow of textiles and apparel would generate up to 27 million more jobs in the developing world (quoted in Audet and Safadi 2004).

Almost all literature written before 2005 predicted major gains for China, Pakistan, and India, three producers with a large labor force and low manufacturing wages. China was unanimously declared the future supplier of

choice to the US market (Applebaum 2004, Ernst, Ferrer, and Zult 2004). The extent of gains was widely debated. Nordås (2004) predicted China's market share in the US would increase 7 percent for textiles and 34 percent for apparel. The US International Trade Commission predicted China's market share would grow 19 points, to 28 percent by 2010 (USITC 1999). Rivera (2003) argued that textile exports would increase by 8 percent, and apparel exports would increase 104 percent. Diao and Somwaru (2001) suggested China's T&C exports would grow more slowly at 6 percent.

Other exporting countries were expected to suffer losses after the quotas ended. Countries such as Haiti and the AGOA members, whose major exports were in quota-constrained categories, were expected to lose market share to China and India after 2005 (Kaplinsky and Morris 2006). Ernst, Ferrer, and Zult predicted that sub-Saharan African countries and smaller OECD countries lacked the infrastructure, the productivity, and the competitively low wages to maintain production in the face of competition from India and China (2004). USITC (2004) predicted South Korean, Hong Kong, and Taiwanese exports would decrease only slightly. South and Southeast Asian Nations such as Bangladesh, Vietnam, and Thailand would suffer from increased competition, but low labor costs and large production systems provided a possible way to reclaim market share (USITC 2004).

In an extensive study, Nordås (2004) emphasized the impact of new retailing and manufacturing patterns on apparel trade. Nordås predicted China

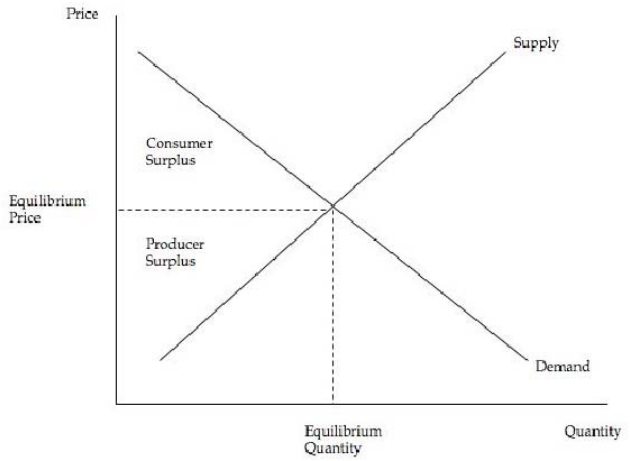
and India would gain large market shares, but he proposed the two countries' potential gains were widely overestimated. Using a general equilibrium model to predict changes in trade after 2005, Nordås predicted countries who are both located far from major markets (the EU and the United States) and which have quota-free or tariff-free access would face steep declines after the ATC expired.

Evans and Harrigan (2004) also underscored the importance of geographical advantage. Their models suggest that MFA barriers did hurt East Asian producers relative to other countries; therefore, formerly constrained producers would gain some market share. However, the model also highlights recent developments in supply chain management and apparel marketing have created a need for quickly sewn, rapidly shipped apparel. East Asian producers' production and shipping times still lag behind producers in Mexico and the Carribean basin. Furthermore, the rising cost of fuel has affected the price of trans-oceanic shipping. As a result, the need for quick, cheap deliveries of some types of apparel has provided an additional and permanent advantage to producers in the Americas.

3. Welfare Effects of a Quota

Without tariffs or quotas, perfect competition would exist in the textile and apparel market. In this perfectly competitive environment, consumer demand for apparel is the determining factor for the price of these goods. As consumers demand more clothing, producers produce more. More firms also enter the apparel market in search of profits. Competition among the producers drives down prices of these goods. As the price of a good falls, some firms choose to exit the market. The total quantity of apparel produced slowly begins to decrease. At this point producers can charge more for clothing because there are fewer firms competing on price. The price rises until it reaches a level that consumers are no longer willing to pay. As price increases, more firms enter the market and a new round of price competition begins. Without restraints on production or consumption of textiles, these forces determine the price of the goods and the quantity produced. This interaction between the buyers and sellers causes the price to settle at an equilibrium point, the market equilibrium.

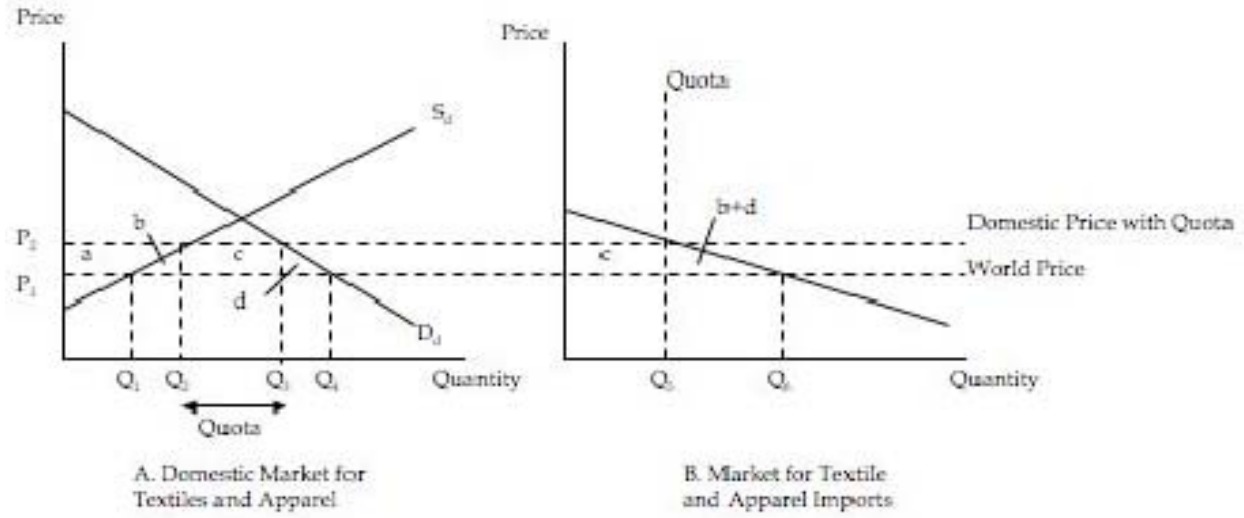
Fig. 3 Textile and Apparel Market in Equilibrium



When the textile market is in equilibrium, there is no excess supply or excess demand. This equilibrium results in maximum total welfare for consumers and textile producers. If the price moves away from the equilibrium, one group will gain at the expense of the other and total national welfare will decrease.

MFA quotas limited the quantity of textiles and apparel that could be imported annually into the United States. Quotas lowered the quantity of apparel provided by foreign producers. In turn, they raised prices for American consumers by reducing price competition for domestic producers of the affected goods. Because they paid more than they would if apparel was freely traded, domestic consumers suffered a decline in welfare. However, the quotas increased the price of apparel on the domestic market and therefore increased American producers' surplus. The higher prices lead to continued domestic output, a slowdown of American job losses, and an increase in profits. Therefore, quotas increased American producers' welfare at the expense of consumers' welfare.

Figure 4. Welfare Effects of a Quota on Textiles and Apparel



When the quantity of apparel supplied was restricted, the price of domestic goods remained high. After quota removal average prices have fallen and consumer welfare has increased (areas "a", "b ", "c", and "d"). Area "a" is former producer surplus that has been transferred to consumers through lower prices. Consumer demand for apparel increases from quantity Q_3 to Q_4, while the domestically produced supply drops from quantity Q_2 to Q_1. Imports fulfill the increased consumer demand, causing imports to increase from quantity Q_5 to Q_6. Areas "b" and "d" were deadweight losses, the cost of inefficiency in the textile and apparel market. Area "c" was the income earned from quota licenses. In the case of textiles and apparel, quota licenses were awarded to each foreign government, which had the rights to sell, auction, or give away the licenses to producers. Although this is a theoretical accounting of national welfare, the welfare gains are very real for consumers. The cost of protection was estimated at $70 billion per year, an average of $170,000 per apparel job saved (Financial

Times, 19 July 2004). Lower prices have also increased the demand for textile and apparel products from Q_5 to Q_6. From 2000-2008 that increase was 53 percent (OTEXA data).

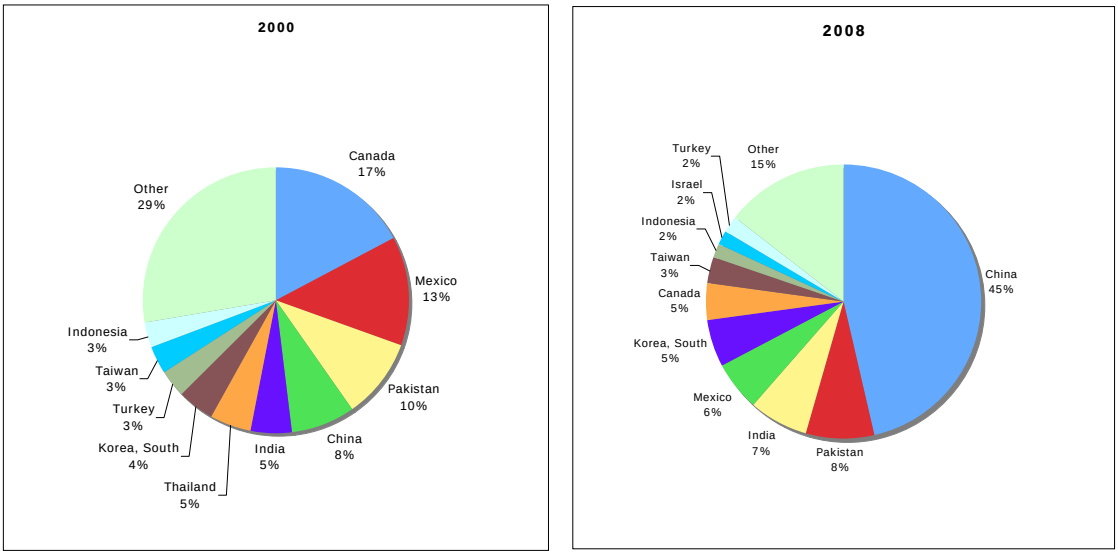
Although the quotas reduced gains for consumers, they increased welfare for American workers employed in the protected industries. Workers remained employed in factories that would otherwise not have been able to compete with the lower prices of imported goods. In the United States, a disproportionately large number of textile and apparel workers are either female or minorities. Both groups face disadvantages when looking for work: females often cannot relocate far from their families, and minorities suffer from higher unemployment rates than the national average (Scott and Lee 1991). Any workers that leave the industry use resources while they search for new employment. Scott and Lee (1991) attempted to quantify the costs of labor adjustment for textile and apparel workers in the United States. They estimated that 250,000 displaced textile and apparel employees would cost American economy over $850 million. The number of employees that have been laid off is actually twice Scott and Lee's estimate (BLS). Even after adjusting the estimate with a larger amount of laid off workers, the estimated consumer gains still far outweigh the estimated losses for producers and workers in the United States.

4. Impact of Quota Elimination

The end of quotas in 2005 has altered the structure of textile and apparel imports. Textile imports have become more consolidated than apparel imports. The number of countries and territories exporting textiles to the United States has fallen to 160, from 168 in 2000. The number of apparel exporters has actually grown, from 174 in 2000 to 180 in 2008 (OTEXA).

Quotas limited exports from China, India, and Bangladesh. However, smaller developing countries were actually helped by the quota system. With exports from larger producers limited by quota allowances, smaller producers gained an opportunity to export to the United States. Furthermore, free trade agreements and trade preference programs provided quota-free and tariff-free access to the American market. Free trade partners and trade preference partners have been hurt since the quotas ended. This section examines in detail the changes in the structure of American textile and apparel imports.

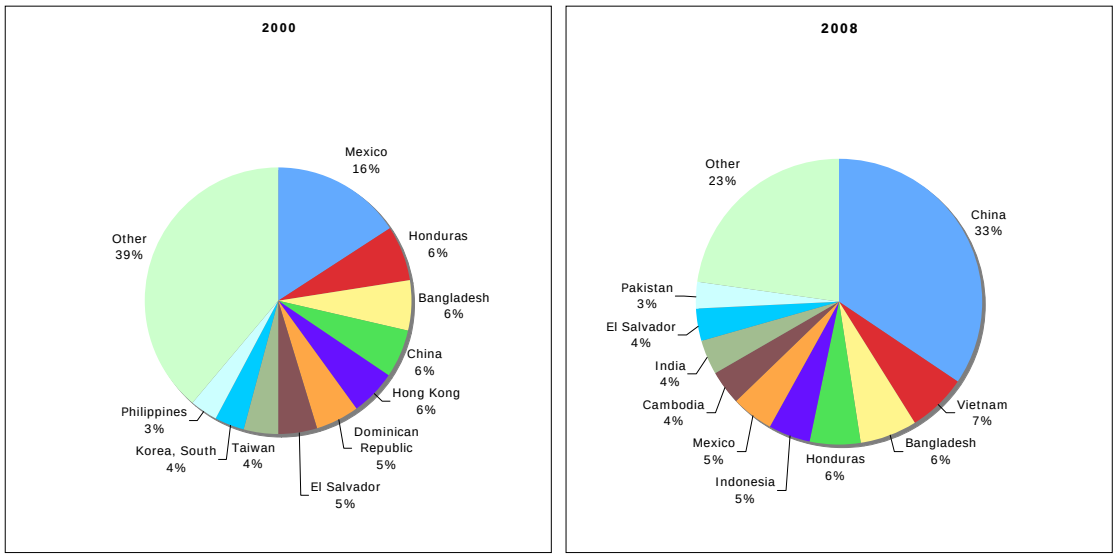
Figure 5. Major sources of textile imports to the United States



Source: OTEXA data

Since quotas ended in 2005, textile imports to the United States have come from an increasingly small number of producers. The top ten textile producers supplied 85 percent of textile imports in 2008, compared with 71 percent in 2000. Two suppliers (Pakistan and China) now supply more than half of all textile imports to the United States. Most major producers exported fewer textiles in 2008 than they did in 2000. Only China and India, both formerly constrained by MFA quotas, increased their share of textile exports to the United States. China has expanded its share of textile exports from a mere eight percent in 2000 to 45 percent in 2008. India's exports expanded only two percent, to a seven percent share in 2008. The major suppliers of textiles have more or less remained the same after quotas ended, although Israel replaced Thailand in the top ten.

Figure 6. Major sources of apparel imports to the United States



Source: OTEXA data.

Apparel imports have also consolidated since the ATC ended in 2005. The

top ten apparel exporters now produce 77 percent of American apparel imports, although suppliers have changed since 2000. The Philippines, South Korea, Taiwan, the Dominican Republic, and Hong Kong have been replaced by Indonesia, Cambodia, India, Pakistan, and Vietnam as top exporters to the United States.

During the MFA, Chinese producers often avoided quota limits by shipping apparel to Hong Kong, where it was re-exported using Hong Kong's quotas (Gu 1999). Since quotas expired in 2005, Hong Kong's exports have decreased relative to China's as more mainland firms begin shipping directly to the US.

4.2 The Americas and Caribbean

Figure 7. Growth Rate and Market Share of NAFTA, CAFTA, CBTPA, and HOPE Producers

	Growth Rate, % (2000-2008)	**US Market Share, % (2008)**
World	53.2	100
Haiti	78.2	0.4
CAFTA	0.1	6.9
CBTPA	-1.0	7.4
ATPDEA	-1.0	0.4
Mexico	-59.0	5.2

Source: OTEXA data.

After the implementation of NAFTA, Mexico became a major supplier of apparel for the United States. Lower wages and an ample workforce attracted American retailers. In the past 10 years, Mexican wages have risen compared to other textile producers, causing retailers to move operations (ILO database). Before quotas expired, the quota- and tariff-free benefits of NAFTA provided

some protection to exporters in Mexico and Canada. After 2005, however, tariff-free status of Mexican and Canadian goods has not been enough to protect their market share. Both countries have seen a major decrease in exports to the United States.

Caribbean basin (CBTPA) and Andean (ATPDEA) producers exported fewer textiles to the United States after quotas ended. Once a major region for apparel exports, the Caribbean producers have been greatly affected by NAFTA and CAFTA (Applebaum 2004). Only Haiti's exports grew at a rate comparable to the world average. Defying regional trends and pre-2005 predictions, imports from Haiti increased 25 percent faster than the general growth rate of all imports. Apparel exports now represent 88 percent of Haiti's total merchandise exports (WTO 2008). CBTPA and the Haiti HOPE Act of 2006 provided Haiti with duty-free access to the American market. Furthermore, Haiti's wages are the lowest in the Caribbean region (USITC 2004). Trade preferences and low wages have given Haiti's apparel industries a definite advantage.

4.3 Asia

Figure 8. Growth Rate and Market Share of Selected Asian Producers

	Growth Rate, % (2000-2008)	**Market Share, % (2008)**
World	53.2	100
Vietnam	10420.4	3.6
China	400.6	40.9
Cambodia	127.4	1.8
Sri Lanka	68.5	0.8
India	47.2	5.6
Bangladesh	29.3	3.3
Pakistan	27.8	5.8

Thailand	15.1	1.9
Nepal	-28.1	0.0
Taiwan	-39.3	2.0
South Korea	-28.4	3.3

Source: OTEXA data.

East Asian producers can be categorized into two groups: early industrializers and ASEAN producers. Japan, Hong Kong, Taiwan, Singapore, and South Korea all developed textile and apparel sectors in the 1920s through 1960s. In recent years, they have since shifted from T&C production to supply chain management. Companies such as Nien Hsing (Taiwan) and Hana Sarang (South Korea) now invest in apparel production outside of their home countries. As a result, apparel exports have decreased from these countries. Smaller ASEAN producers are newer entrants to the textile and apparel market. ASEAN producers are engaged in apparel production rather than design and packaging. They have increased production even with increased competition from China. In the case of Vietnam and Cambodia, both countries increased exports much faster than the world average.

India was expected to gain market share after quotas ended, while Bangladesh and Pakistan were expected to lose market share (Applebaum 2004). In reality all three producers increased exports. South Asian nations remain highly reliant on textile and apparel trade. In 2007, T&C exports represented 13 percent of India's total merchandise exports, 63 percent of Pakistan's merchandise exports, and 87 percent of Bangladesh's exports (WTO 2008). Excluding Nepal, South Asian exporters have maintained production in the face

of competition with China.

4.4 Africa

Figure 9. Growth Rate and Market Share of Selected AGOA and African Producers

	Growth Rate, % (2000-2008)	Market Share, % (2008)
World	53.2	100
AGOA	78.9	0.7
Ethiopia	6,307.8	0.0
Kenya	446.9	0.1
Madagascar	279.3	0.2
Lesotho	152.2	0.2
Egypt	19.9	0.6
Sierra Leone	-1.4	0.0
Niger	-38.3	0.0
South Africa	-48.9	0.1
Morocco	-63.6	0.0
Nigeria	-94.7	0.0

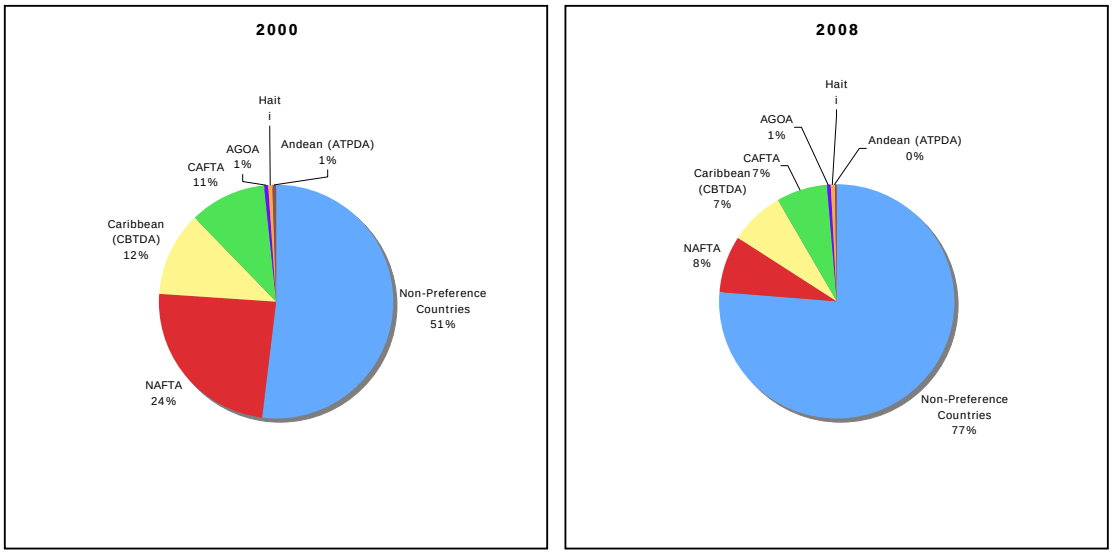
Source: OTEXA data.

In Africa large-scale apparel production is in the beginning stages. Eighteen African nations are allowed tariff-free access through the African Growth and Opportunity Act. Through AGOA, producers who use American materials or regional materials receive quota- and duty-free treatment. The effect of quota phase-outs on the region has been mixed. Consistent with Applebaum (2004) and USITC (2004) predictions, half of the AGOA members' exports to the US decreased after 2005. Most of these African exporters lack the facilities to capture economies of scale: no African nation has captured more than a 0.6 percent market share.

AGOA's main benefit is tariff exemption. It provides a 17 percent price advantage to African manufacturers (Applebaum 2004). This has been enough to boost exports from half of AGOA countries (Botswana, Ethiopia, Ghana, Kenya,

Lesotho, Madagascar, Malawi, Swaziland, and Tanzania). Chinese investment has also driven development of African textiles and apparel exports (Gibbon 2003). Several AGOA members have benefited from the agreement and started to develop textile and apparel operations. Ethiopia, Kenya, Madagascar, and Lesotho's high growth rates reflect the boost that AGOA has provided. However, AGOA members remain especially vulnerable to further attempts at trade liberalization. If tariffs on textiles or apparel are lowered, most AGOA members' production will decrease (Applebaum 2004, Gibbon 2003).

Figure 10. Imports by Trade Preference Program, 2000 and 2008



Source: OTEXA data.

No major correlation exists between most trade preference programs and post-ATC performance. Growth rate for NAFTA, CBTPA and ATPDEA producers has been negative; AGOA results are mixed, while HOPE and CAFTA producers have increased exports. On the whole, exports from China, ASEAN and South Asian producers (who overwhelmingly do not have trade preference

agreements with the United States) have replaced exports from NAFTA, CBTPA, and CAFTA members.

In addition to trade preferences, foreign direct investment (FDI) flows also affect textile and apparel production. No major studies of American investment in textile and apparel industries have been published since the quotas ended in 2005. However, Eichengreen and Hui (2005) investigated whether increased FDI in China corresponded with decreased FDI in other countries. Their analysis indicates that increased FDI in China actually increases FDI in other Asian countries, while decreasing FDI to OECD countries (Mexico and South Korea, now OECD members, were not included as such in the study). This suggests that increased investment in Chinese textile and apparel industries should lead to increased investment in neighboring countries' industries.

Without quotas, tariffs have become the last remaining protectionist policy for textiles and apparel. For developing countries, the principal benefit that trade preference programs provide is tariff-free access to the American market. Ironically, developing countries have found themselves arguing in favor of maintaining or even increasing tariffs in order to protect their margin of trade preference (Audet 2006). The United States must carefully consider effects on the welfare of developing countries' producers before further liberalizing tariffs. The post-quota gains of Chinese producers indicate that they will be the first to gain market share if tariffs are reduced or eliminated.

5. Case Studies of Specific Industries

In most textile and apparel categories, China has clearly gained a comparative advantage since quotas ended. China has become the major supplier in these export categories. Most of these industries are simple sewn apparel products with little brand or quality differentiation. For these categories China's principal advantage is the ability to produce on a large scale with relatively low costs. These advantages have helped Chinese producers gain market share even in categories where Chinese prices are not the lowest. The first part of this section examines three cases in which China has become the dominant producer.

China does not have a comparative advantage in all categories of textiles and apparel. Chinese producers still lag behind in two cases: first, in industries that exhibit major brand differentiation; and secondly, in several capital-intensive textile categories. Part two of this section examines two cases that exhibit these trends.

Graphs in this section were derived from data compiled by the US International Trade Commission's Office of Textiles and Apparel (OTEXA). OTEXA publishes information on the quantity and value of textile and apparel imports from all countries that supply to the United States. All graphs use annual year-end data for each category. Values are all in US dollars, while units differ by category. Growth rates and price were derived from quantities and values supplied by OTEXA. Data on quotas and quota fill rates came from US

Customs and Border Patrol Expired Performance Reports.

5.1 High Growth Categories

Chinese producers have become dominant in most textile and apparel categories, but gains in certain categories have been explosive. The industries in which Chinese producers have made the largest gains are relatively simple, low-cost sewn apparel categories. This section will examine the cases of cotton sweaters, cotton nightwear, and women and girls' wool coats. In each of these categories, China has gained a significant amount of market share relative to other major producers.

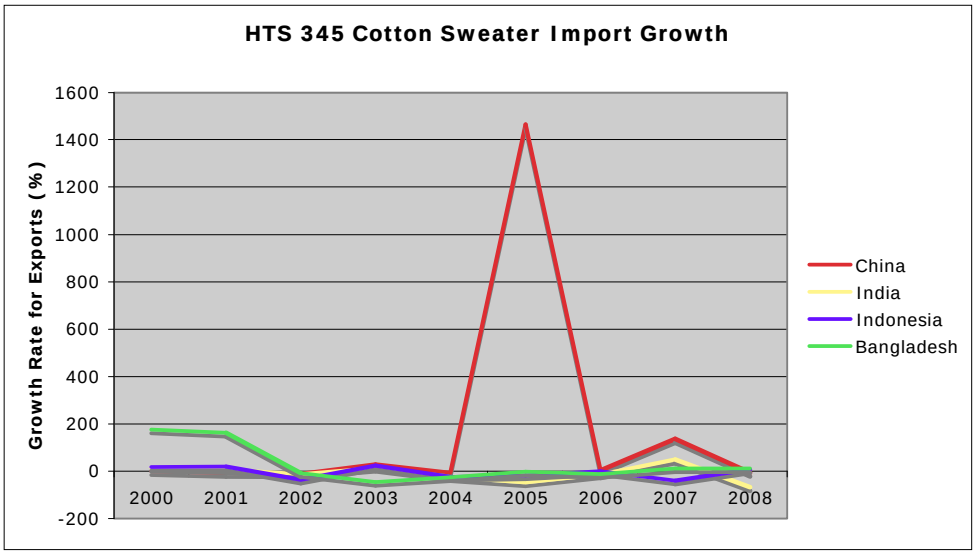
Example A: HTS 345, Cotton Sweaters

Cotton sweaters are one category for which China has captured a majority market share. Sweaters are a simple sewn apparel product with little brand or quality differentiation among major producers. When quotas were in place, Chinese production was limited and prices remained high. Since quotas ended Chinese prices have converged with world prices. Although Chinese prices are not the lowest among major producers, Chinese exports have increased quickly since quotas were removed. This indicates that price is not the only advantage that Chinese producers have.

Until 2005 import quotas were in effect for cotton sweaters produced abroad. The quotas limited the amount of cotton sweater imports to the United States. As a result, from 2000-2004 the quantity of sweaters imported remained relatively steady. Most countries did not export enough cotton sweaters to the

United States to be affected by the quotas. However, the quotas did limit the amount of cotton sweaters that China could export to the United States. This in turn limited the amount of competition that sweater producers faced.

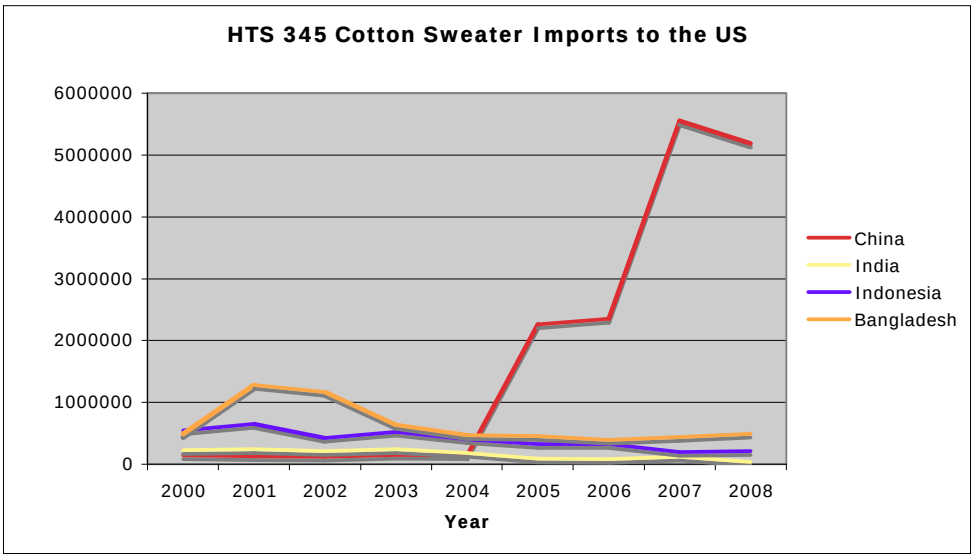
In 2005, quotas for cotton sweaters were removed. Chinese producers were no longer limited in the amount of cotton sweaters they could export to the United States. They began to export more sweaters. In 2005, the first year without quotas on Chinese cotton sweaters, exports increased over 1400 percent. At the same time, other producers experienced negative growth.



Source: OTEXA database.

The total number of sweaters imported increased, and the increase was almost entirely due to imports from China. China's market share increased from a minimal one percent share to over 50 percent by 2007. At the beginning of the period, Indonesia and Bangladesh were the largest exporters. China was the smallest major producer, and its exports remained almost constant before 2005.

Other producers, who were previously not constrained by quotas, maintained or slowly decreased exports to the United States.

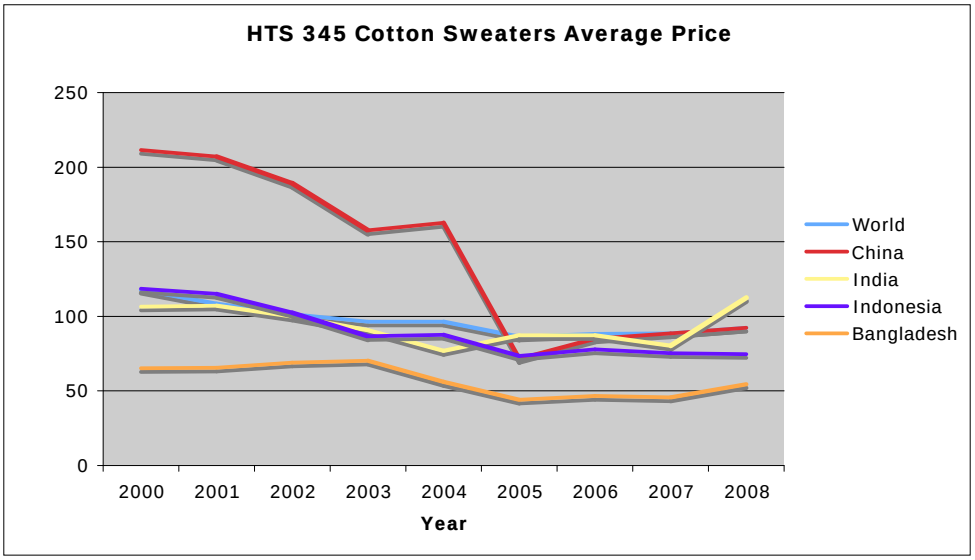


Source: OTEXA Database.

Without competition from Chinese producers, the average world price of sweaters decreased only slightly. During the same period, Chinese prices remained 75 to 100 dollars higher than the average world price. Entry to the market was limited because Chinese producers had to secure quota licenses in order to export to the United States. Therefore, lack of competition and the added cost of quota licenses caused the price of Chinese sweaters to remain artificially high.

The average price of Chinese sweaters decreased quickly after 2004. The elimination of quotas allowed more producers to enter the export market. Increase in exports brought an increase in price competition, bringing Chinese sweater prices close to the average world price. After 2005 the price decrease for Chinese sweaters slowed, as did the increase in Chinese exports to the United

States. By 2008 producers' prices converged around the range of 50 to 90 dollars. This indicates that Chinese and world prices of sweaters are close to a natural price created in a free trade situation.

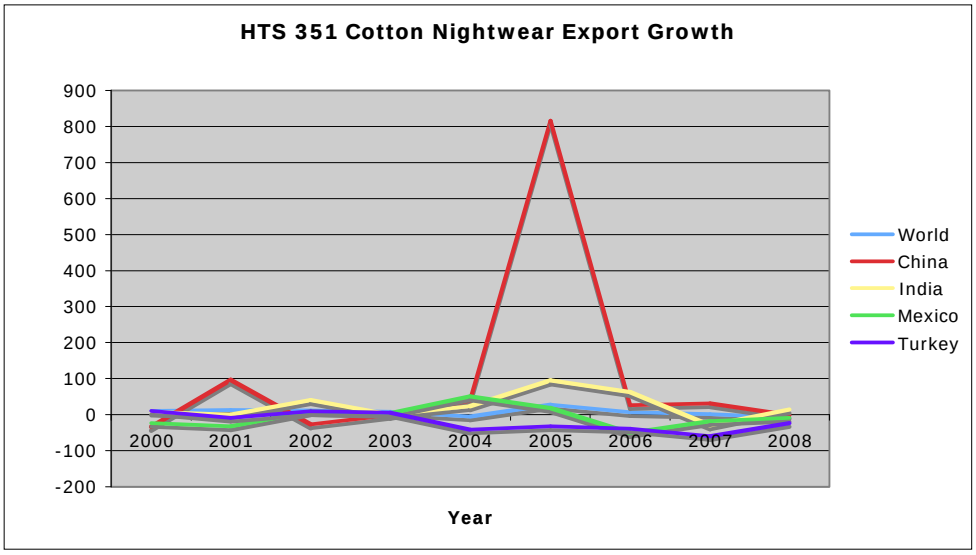


Source: OTEXA Database.

There is little to no product differentiation between producers (such as brand or quality, demonstrated by a premium price). All major sweater producers produce sweaters in a similar price range. The price of Chinese sweaters is not the lowest in the range. In fact Chinese producers have captured market share despite relatively high prices. Bangladeshi and Indonesian prices have remained the lowest out of all major producers. At the same time, Bangladeshi and Indonesian producers' exports did not increase after quotas ended. This indicates that production capacity rather than price is Chinese producers' main advantage in sweater production.

Example B: HTS 351, Cotton Nightwear and Pajamas

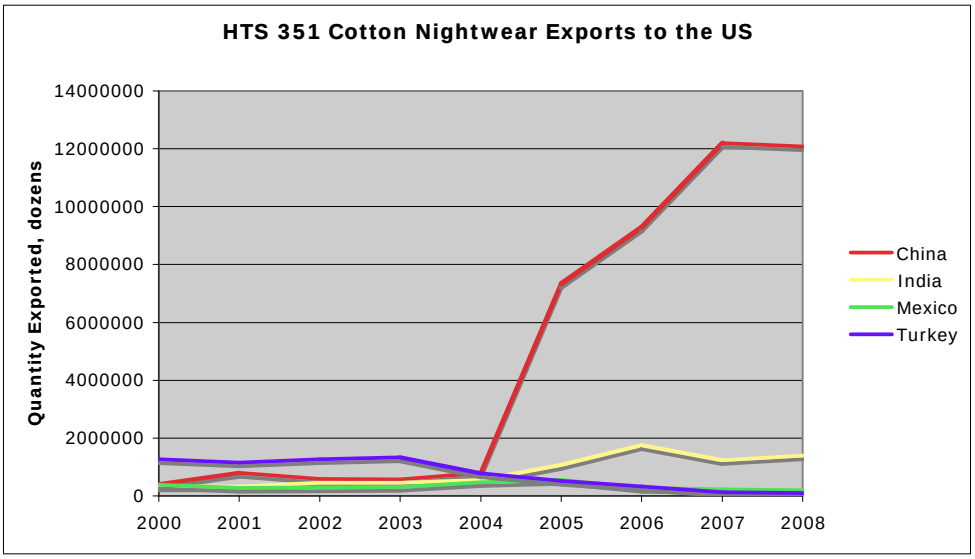
Quotas on cotton nightwear were in place until 2005. Chinese producers had the capacity to produce much more than the quota limit, but the quotas limited the amount of nightwear they could export. As a result, Chinese nightwear exports remained low before 2005. The growth rate rose after China entered the WTO in 2001 and was followed by a period of negative growth. After quotas were removed, however, Chinese exports increased over 800 percent. Imports from India, another formerly constrained producer, also increased.



Source: OTEXA Database

The total amount of nightwear imported to the United States increased 64 percent from 2000-2008. Most of this increase is due to increased Chinese exports of cotton nightwear. Chinese market share has increased from three percent in 2000 to 56 percent in 2008. The increased Chinese exports replaced exports from other producers. Before quotas ended, 97 countries exported cotton nightwear to the United States. Turkey had the largest market share at 10 percent. After

quotas ended, over 63 percent of exports came from only two countries, China and India. Exports from other producers, especially Turkey and Mexico, have decreased.

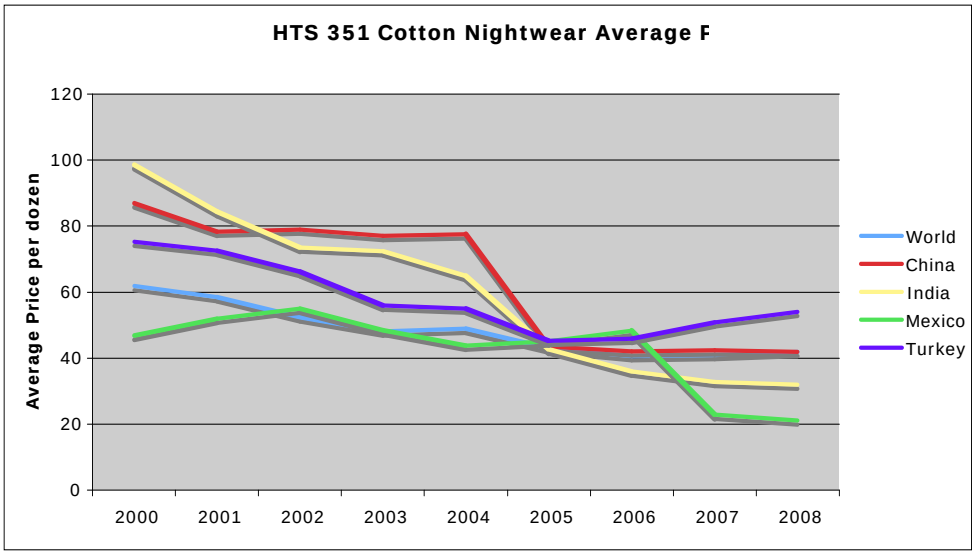


Source: OTEXA Database

When quotas were in effect, Chinese producers had to secure quota licenses in order to export to the United States. The extra cost of quota licenses raised the price of Chinese goods. The prices of Chinese and Indian nightwear exports were almost 50 percent above the average world price. Mexican producers, benefiting from NAFTA, were not subject to HTS 351 quotas or tariffs. The average price of Mexican nightwear remained below the world price. From 2000-2004, world prices of nightwear decreased slowly. Quotas were in place, and imports remained stable.

In 2005 quotas for HTS 351 were removed. World price decreased slightly, but the average price of Chinese and Indian nightwear decreased significantly. The year the quotas were removed, Chinese exports of nightwear grew over 800

percent. Other producers experienced negative growth, indicating that Chinese exports replaced exports from other major producers. After the initial spike in growth, Chinese exports of nightwear slowed. Prices began to converge again at a lower level.



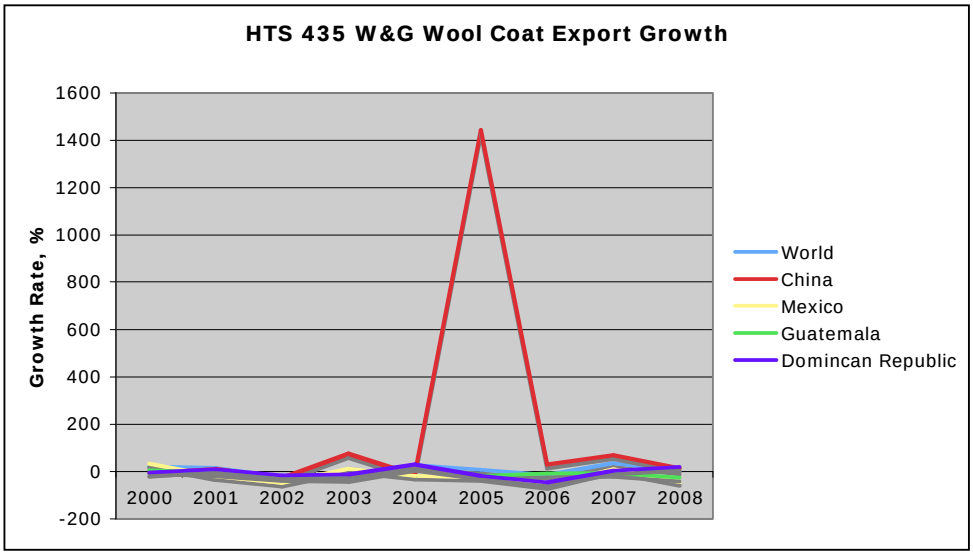
Source: OTEXA Database

As in the case of cotton sweaters, cotton nightwear exports are perfect substitutes. None of the major producer prices are far above the world average (representing no distinctions of brand or quality). Chinese prices once again are not the lowest among major producers. Both India and Mexican export prices are lower than Chinese prices. However, Chinese exports have gained a majority market share in the United States. This indicates that China's low wages and large scales of production, rather than prices, are the country's main advantages in production of cotton nightwear and similar products.

Example C: HTS 435, Women and Girls' Wool Coats

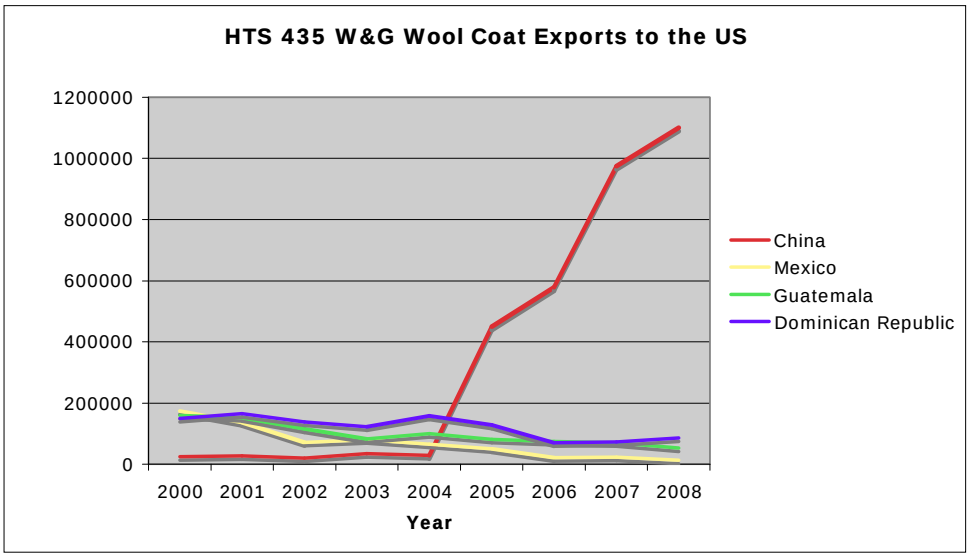
Until 2005 import quotas were in effect for women and girls' wool coats. Chinese producers had the capacity to produce much more than the quota limit, but they were limited in the amount of coats they were allowed to export. No other major producer of wool coats faced quotas, nor did they increase production of wool coats during this period. As a result, from 2000-2004 the total quantity of wool coats imported showed no increase.

In 2005, quotas for wool coats were removed. Chinese producers were no longer limited in the amount they could export to the United States. They began to export many more coats. In 2005 Chinese wool coat exports increased 1400 percent. Other major producers had negative growth rates. Chinese growth rates stabilized to an annual range of 30 to 50 percent after 2005, while other producers' growth rates hovered close to zero.



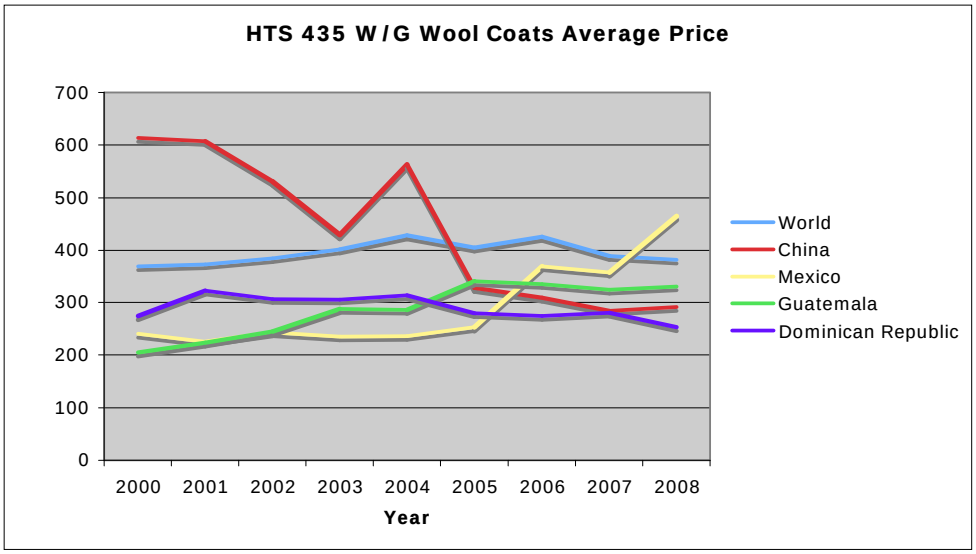
Source: OTEXA database.

In 2000 China was the fourth largest exporter of wool coats. The largest producer was Mexico, which benefited from NAFTA's tariff-free provisions. Exports from all major suppliers remained steady until 2005, when quotas were removed. After 2005 Chinese exports surged and replaced exports from other producers. Mexican, Guatemalan, and Dominican producers' market share slowly decreased, but Chinese market share increased from one percent in 2000 to 60 percent in 2008.



Source: OTEXA database.

From 2000-2004, the average world price of wool coats increased slightly. During the same period, Chinese prices remained 50-200 dollars higher than the average world price. Entry to the market was limited because Chinese producers had to secure quota licenses in order to export to the United States. Therefore, lack of competition and the added cost of quota licenses caused the price of Chinese wool coats to remain high.



Source: OTEXA database.

The elimination of quotas and the license system allowed more producers to enter the export market. Increase in exports brought an increase in price competition, driving Chinese wool coat prices down to a level almost 100 dollars below the average world price. The average price of Chinese cool coats decreased 52 percent from 2000-2008. After one year the price decrease for Chinese sweaters slowed, and the prices of Chinese goods are now among the lowest of all producers. This indicates that Chinese and world prices of wool coats are close to the price that would exist in a free-trade situation.

Most categories of post-2005 apparel exports fit the pattern shared by the above three industries. In these categories, China has captured a large or majority market share of the product and driven out exports from other major producers. In cases such as wool coats, Chinese goods are among the cheapest. Yet the cotton sweater and nightwear cases underscore the fact that price is not China's only advantage. The ability to produce on a massive scale has helped

Chinese producers capture market share even in categories where the Chinese price is not the lowest.

5.2: Low or No Growth Categories

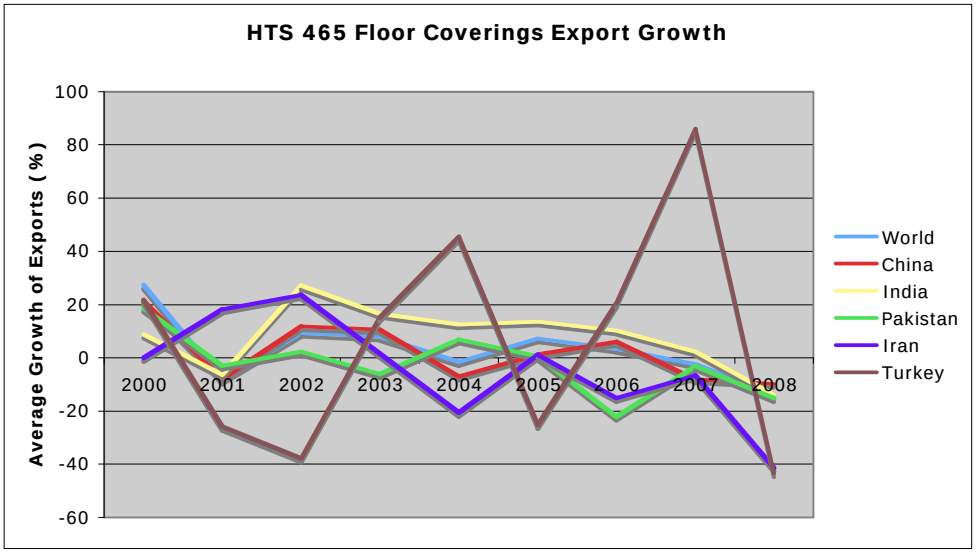
Although Chinese exports in almost all textile and apparel categories have increased, Chinese producers have not gained comparative advantage in every category. Chinese exports remain low in two categories: exports of "branded" apparel and capital-intensive fabric production. The cases of wool carpets and canvas fabric are representative of these two categories.

Example D: HTS 465, Wool Floor Coverings

Gu (1999) notes the majority of Chinese textile and apparel exports are low-value products rather than expensive or luxury items. As a result, Chinese producers have been slow to gain market share in categories with differentiated products. In these categories there are two price strata: expensive, high end products and cheaper, low-end products.

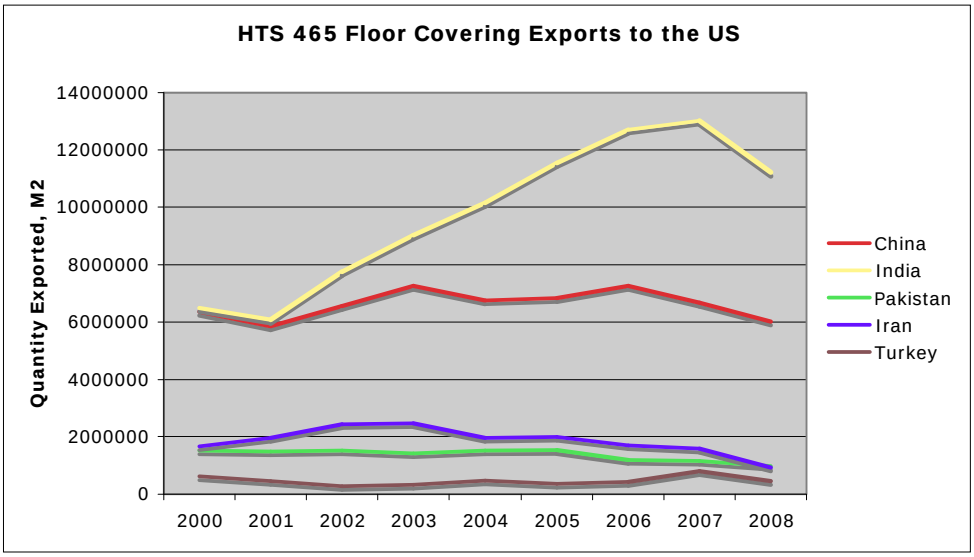
HTS 465, wool floor coverings, represents exports of rugs and carpet made from wool. Exports of rugs and carpets are divided among high-end producers and low-end producers. Pakistani, Persian, and Turkish carpets all exhibit price premiums, indicating a brand or quality distinction from other producers. Chinese and Indian carpet prices are lower and represent the low end of the rug market. Despite having the lowest price among all major producers, China has not become the largest exporter of these products.

The market for floor coverings is volatile. Year to year changes in exports vary up to 30 percent. Although quotas ended in 2005, there were no large spikes in exports from major consumers. This indicates that quotas did not limit exports of rugs for any countries.



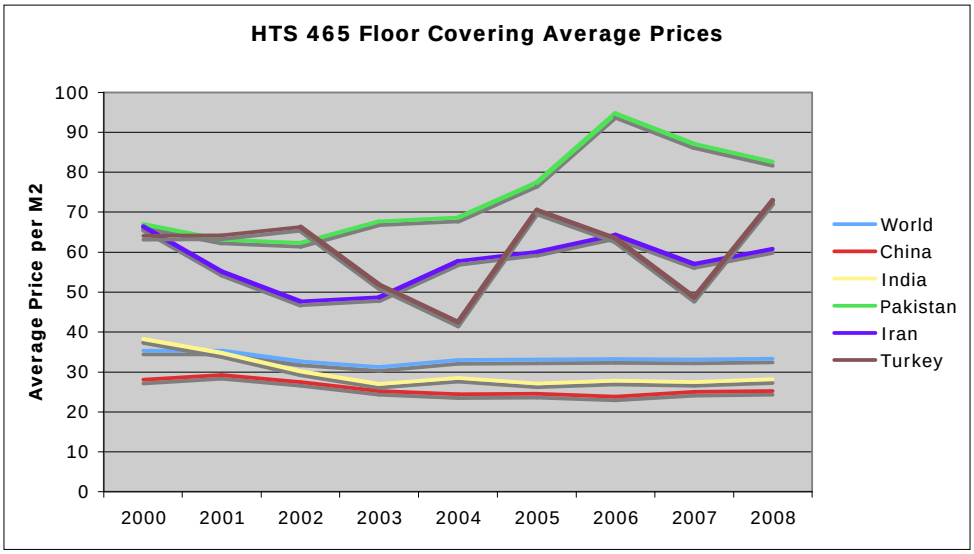
Source: OTEXA database

Cheaper rugs dominate the export market. The two producers with the cheapest prices, India and China, have the largest market share. In contrast to most other export categories, Chinese producers are not the largest exporters for HTS 465 rugs. Moreover, Indian exports gained market share despite having higher prices than Chinese exports. Exports from other producers decreased slightly over the same period but remained relatively steady.



Source: OTEXA database

There are clearly two different price strata for wool rugs. Low-end rug producers export rugs in the $30-40 dollar range, slightly below the world average price. Prices of high-end producers' rugs are on average double those of the low-end producers and high above the world price. Yet the price difference has not impacted either set of producers since quotas ended. Indian producers have increased production by 30 percent, although the price of Indian exports decreased less than 20 percent over the same period. Chinese exports actually decreased despite the fact that Chinese prices remained the lowest of all major producers. In the high-end sector of the market, exports of more expensive rugs decreased only slightly despite the fact that prices remained 50-100 percent higher than Indian and Chinese exports.



Source: OTEXA database

Price must not the only advantage for rug-exporting countries. The Chinese price is the lowest of all major producers, but it is India who has increased exports to the US. At the same time, other producers with higher prices maintained production despite competition with China and India. This indicates that consumers still demand the premium rugs from Pakistan, Iran, and Turkey.

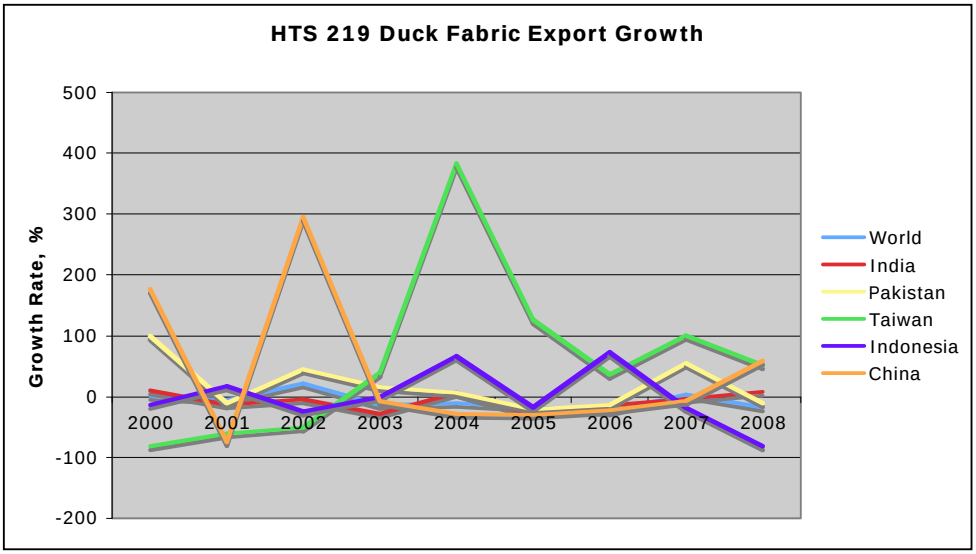
The same principles apply to other highly branded categories, such as HTS 219, denim. Chinese exports remain firmly in the low-end of these categories. Other producers, such as Japan, maintain market share despite high average prices. As a result, Chinese gains have been limited in these sectors. Unless Chinese producers make progress branding their exports and upgrading quality, they will not take market share from established, branded producers. Export growth will be limited to the cheaper, low-end goods in these categories.

Example E: HTS 219 Duck Fabric

In contrast to apparel sewing, which is a labor-intensive process, yarn and fabric weaving are the most automated parts of textile production. Fabric and yarn production are rarely done by hand; instead, large looms now weave almost all yarns and fabrics. These machines require a large capital investment (Abernathy 1999). As a result, low wages and skilled sewers provide little advantage for yarn and fabric exports.

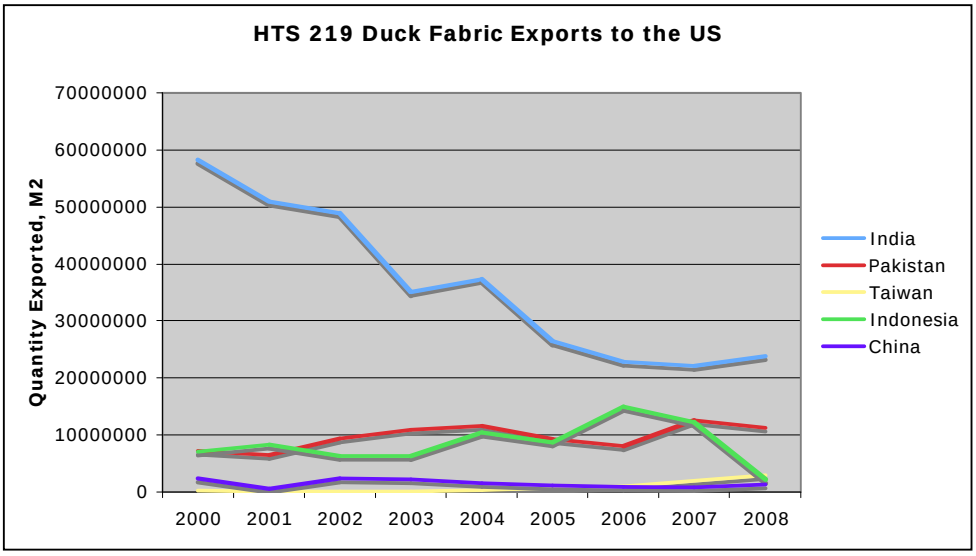
Chinese factories have advantages of low wages and large-scale sewing operations. These factors provide Chinese producers with advantages for apparel that must be sewn by hand, but they offer no advantage for automated fabric weaving. Consequently, Chinese exports of these yarn and fabric goods have remained low even after quotas ended. This paper examines HTS 219-duck fabric (canvas fabric), although several other HTS items also fit this pattern, including HTS 615 (broadcloth), HTS 622 (glass fiber fabric), and HTS 301 (combed cotton yarn).

Quotas on canvas were in place until 2005. While quotas were in place, the fill rate for all major producers was low (43 percent for Chinese exports, 53 percent for Pakistani exports in 2004 according to US Customs). This indicates that quotas were not constricting for major producers. During the year that quotas ended, no producers increased exports more than 60 percent. Chinese exports actually decreased and continued to decrease until 2008.



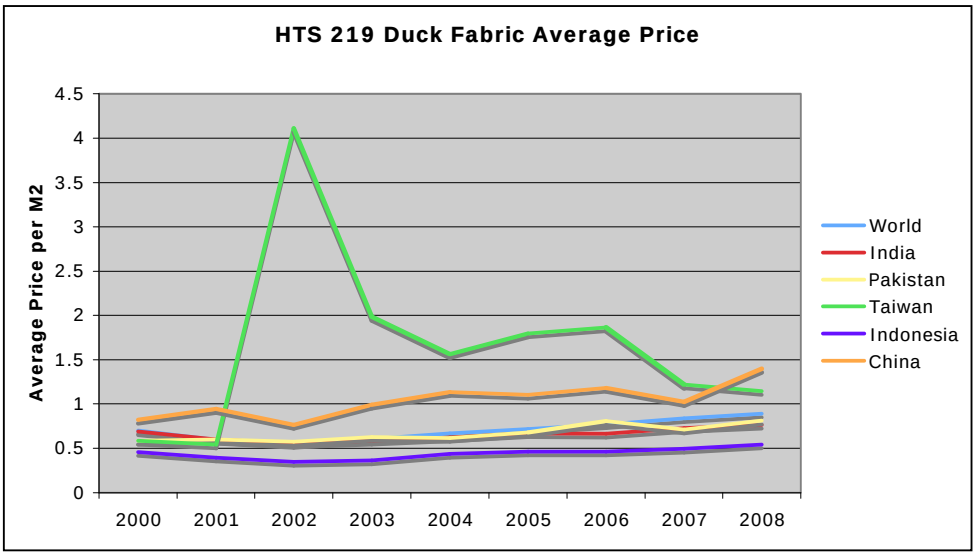
Source: OTEXA database

The total quantity of duck fabric demanded by the United States has decreased over time, but the major producers have remained the same. India has been the largest producer for the entire period, followed by Pakistan and Indonesia. China and Taiwan, two producers with the highest prices per square meter, remain the smallest major producers.



Source: OTEXA database

The largest three and smaller two producers are divided by price. India, Pakistan, and Indonesian prices are the lowest among major producers. Their export prices are below the world average. Taiwan and China, the major producers with the fewest exports, have higher prices than the world average.



Source: OTEXA database

The examples of rugs and duck fabric indicate that post-quota Chinese advantage is not universal. First, Chinese low prices are not a guarantee for increased market share. For "branded" products such as carpets and denim, high-end producers are already well established. These producers can charge higher prices than the world average because their products are differentiated from low-end goods. Low prices have allowed Chinese producers to capture market share for cheaper goods in these categories. However, Chinese producers have not been able to take market share from more established producers in the premium market. Secondly, Chinese prices are not universally low. In automated, capital intensive industries, Chinese producers simply have not

established a price advantage. Other producers in these categories have maintained lower export prices and higher market share. In order to increase market share in these two categories, Chinese producers must invest capital more in branding and quality upgrading.

5. Conclusions

Although the ATC ended only three years ago, the removal of quotas has already altered the structure American imports significantly. More textile and apparel exports are coming to the United States from a smaller number of major producers. As predicted before the ATC expired, China has become the largest supplier of textiles and apparel products. China's share of the American textile and apparel market has increased from 6 percent in 2000 to 40 percent in 2008 (OTEXA). Chinese gains have come at the expense of producers in Africa and Latin America, particularly Mexico.

Despite the inclusion of tariff-free provisions, free trade programs and trade preference programs offer little protection to most exporters. Market share of trade preference members decreased from 49 percent in 2000 to 33 percent in 2008. Competition from China has harmed NAFTA producers in particular. Mexican exports to the United States decreased 44 percent, and Canadian exports decreased 57 percent (OTEXA). Countries that increased production, however, depend on the tariff exemptions created by the trade programs. As the United States re-negotiates textile and apparel tariff rates, it must consider the negative effects such changes will have on these vulnerable producers. Tariff reductions and removal will certainly harm the developing textile and apparel industries in AGOA countries.

Since quotas ended, production and competition among producers has increased. The average world price for textiles and apparel has fallen 15 percent.

After quotas were removed, competition among Chinese producers increased, causing Chinese prices to fall more than 45 percent (OTEXA). This price decrease comes despite the Chinese renminbi's appreciation against the dollar, which began in 2005. Although the renminbi has appreciated, Chinese prices have converged with the world average in most industries.

The end of quotas benefited Chinese exporters. Initial post-quota growth rates for Chinese exports were extremely high. In 2005, the year that most quotas ended, one fifth of Chinese export categories experienced growth rates above 500 percent (OTEXA). Since 2005, however, growth rates of Chinese exports have slowed to rates comparable with other major producers. Growth rates have been highest for sewn apparel products, and lowest for categories with major brand differentiation and high capital requirements.

The benefits of quota elimination have not been limited to Chinese producers. Several other Asian producers also increased production after the quotas ended. Bangladeshi exports increased 47 percent, Indian exports increased 127 percent, Cambodian exports increased 244 percent, and Vietnamese exports increased 5000 percent (OTEXA). A combination of quota removal and low wages has helped these suppliers gain market share in the United States. Their growth rates in the face of competition with China indicate healthy, developing textile and apparel industries. These producers will become new "go-to" suppliers in the future, especially if Chinese wages and costs increase.

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Appendix I: United States Department of Commerce, Office of Textiles and Apparel Harmonized Tariff Schedule (HTS)/Apparel Category System, with conversion to Square Meter Equivalents (SMEs)

YARN:
200 Yarns put up for retail sale, and sewing thread kg. 6.60
201 Specialty yarns kg. 6.50
300 Carded cotton yarn kg. 8.50
301 Combed cotton yarn kg. 8.50
400 Wool yarn kg. 3.70
600 Textured filament yarn kg. 6.50
603 Yarn containing 85% or more by weight artificial staple fiber kg. 6.30
604 Yarn containing 85% or more by weight synthetic staple fiber kg. 7.60
606 Non-textured filament yarn kg. 20.10
607 Other staple fiber yarn kg. 6.50
800 Silk blends or non-cotton vegetable fiber yarn kg. 8.50

FABRIC:
218 Of yarns of different color m2 1.00
219 Duck m2 1.00
220 Fabric of special weave m2 1.00
222 Knit fabric kg. 12.30
223 Non-woven fabric kg. 14.00
224 Pile & tufted fabric m2 1.00
225 Blue denim m2 1.00
226 Cheesecloth, batiste, lawn, voile m2 1.00
227 Oxford cloth m2 1.00
229 Special purpose fabric kg. 13.60
313 Sheeting m2 1.00
314 Poplin & broadcloth m2 1.00
315 Printcloth m2 1.00
317 Twills m2 1.00
326 Sateens m2 1.00
410 Woven fabric m2 1.00
414 Other wool fabric kg. 2.80
611 Woven fabric containing 85% or more by weight artificial staple m2 1.00
613 Sheeting m2 1.00
614 Poplin & broadcloth m2 1.00
615 Printcloth m2 1.00
617 Twills & sateens m2 1.00
618 Woven artificial filament fabric m2 1.00
619 Polyester filament fabric, light-weight m2 1.00
620 Other synthetic filament fabric m2 1.00

621 Impression fabric kg. 14.40
622 Glass fiber fabric m2 1.00
624 MMF fabric, woven, containing more than 15% but less than 36% wool m2 1.00
625 Poplin & broadcloth of staple/ filament fiber combinations m2 1.00
626 Printcloth of staple/filament fiber combination m2 1.00
627 Sheeting of staple/filament fiber combinations m2 1.00
628 Twills & sateens of staple/filament fiber combinations m2 1.00
629 Other fabrics of staple/filament fiber combinations m2 1.00
810 Woven fabric, silk blend & non- cotton vegetable fiber m2 1.00

APPAREL:
237 Playsuits, sunsuits, etc doz 19.20
239 Babies' garments and clothing accessories kg. 6.30
330 Handkerchiefs doz 1.40
331 Gloves and mittens dpr 2.90
332 Hosiery dpr 3.80
333 M&B suit-type coats doz 30.30
334 Other M&B coats doz 34.50
335 W&G coats doz 34.50
336 Dresses doz 37.90
338 M&B knit shirts doz 6.00
339 W&G knit shirts & blouses doz 6.00
340 M&B shirts, not knit doz 20.10
341 W&G shirts & blouses, not knit doz 12.10
342 Skirts doz 14.90
345 Sweaters doz 30.80
347 M&B trousers, breeches & shorts doz 14.90
348 W&G trousers, breeches & shorts doz 14.90
349 Brassieres & other body supporting garments doz 4.00
350 Robes, dressing gowns, etc. doz 42.60
351 Nightwear and pajamas doz 43.50
352 Underwear doz 9.20
353 M&B down-filled coats doz 34.50
354 W&G down-filled coats doz 34.50
359 Other cotton apparel kg. 8.50
431 Gloves and mittens dpr 1.80
432 Hosiery dpr 2.30
433 M&B suit-type coats doz 30.10
434 Other M&B coats doz 45.10
435 W&G coats doz 45.10
436 Dresses doz 41.10
438 Knit shirts & blouses doz 12.50

439 Babies' garments and clothing accessories kg. 6.30
440 Shirts & blouses, not knit doz 20.10
442 Skirts doz 15.00
443 M&B suits no. 3.76
444 W&G suits no. 3.76
445 M&B sweaters doz 12.40
446 W&G sweaters doz 12.40
447 M&B trousers, breeches & shorts doz 15.00
448 W&G trousers, breeches & shorts doz 15.00
459 Other wool apparel kg. 3.70
630 Handkerchiefs doz 1.40
631 Gloves and mittens dpr 2.90
632 Hosiery doz 3.80
633 M&B suit-type coats doz 30.30
634 Other M&B coats doz 34.50
635 W&G coats doz 34.50
636 Dresses doz 37.90
638 M&B knit shirts doz 15.00
639 W&G knit shirts & blouses doz 12.50
640 M&B shirts, non knit doz 20.10
641 W&G shirts & blouses, not knit doz 12.10
642 Skirts doz 14.90
643 M&B suits no. 3.76
644 W&G suits no. 3.76
645 M&B sweaters doz 30.80
646 W&G sweaters doz 30.80
647 M&B trousers, breeches & shorts doz 14.90
648 W&G trousers, breeches & shorts doz 14.90
649 Brassieres & other body supporting garments doz 4.00
650 Robes, dressing gowns, etc. doz 42.60
651 Nightwear and pajamas doz 43.50
652 Underwear doz 13.40
653 M&B down-filled coats doz 34.50
654 W&G down-filled coats doz 34.50
659 Other man-made fiber apparel kg. 14.40
831 Gloves and mittens dpr 2.90
832 Hosiery dpr 3.80
833 M&B suit-type coats doz 30.30
834 Other M&B coats doz 34.50
835 W&G coats doz 34.50
836 Dresses doz 37.90
838 Knit shirts & blouses doz 11.70
839 Babies' garments and clothing accessories kg. 6.30

840 Shirts & blouses, not knit doz 16.70
842 Skirts doz 14.90
843 M&B suits no. 3.76
844 W&G suits no. 3.76
845 Sweaters of non-cotton vegetable fibers doz 30.80
846 Sweaters, of silk blends doz 30.80
847 Trousers, breeches & shorts doz 14.90
850 Robes, dressing gowns, etc. doz 42.60
851 Nightwear and pajamas doz 43.50
852 Underwear doz 11.30
858 Neckwear kg. 6.60
859 Other apparel kg. 12.50

MADE-UP AND MISCELLANEOUS TEXTILES:
360 Pillowcases no. 0.90
361 Sheets no. 5.20
362 Bedspreads and quilts no. 5.80
363 Terry and other pile towels no. 0.40
369 Other cotton manufactures kg. 8.50
464 Blankets kg. 2.40
465 Floor coverings m2 1.00
469 Other wool manufactures kg. 3.70
665 Floor coverings m2 1.00
666 Other man-made fiber furnishings kg. 14.40
669 Other man-made fiber manufactures kg. 14.40
670 Flat goods, handbags, and luggage kg. 3.70
863 Towels no. 0.40
870 Luggage kg. 3.70
871 Flatgoods and handbags kg. 3.70
899 Other silk and vegetable blend manufactures kg. 11.10

Appendix II. 25 Largest Textile and Apparel Exporters to the US (exports, in millions USD)

	2000	2008	% change 2000-2008	US Market Share
World	71,691.5	93,187.2	30.0	100.0
China	6,527.5	32,678.6	400.6	35.1
Vietnam	49.9	5,425.3	10780.0	5.8
India	2,740.7	5,078.1	85.3	5.4
Mexico	9,692.9	4,957.1	-48.9	5.3
Indonesia	2,380.2	4,241.4	78.2	4.6
Bangladesh	2,204.7	3,537.4	60.5	3.8
Pakistan	1,834.7	3,078.1	67.8	3.3
Honduras	2,328.3	2,611.7	12.2	2.8
Cambodia	815.8	2,386.1	192.5	2.6
Italy	2,128.5	2,038.6	-4.2	2.2
Thailand	2,447.1	1,979.2	-19.1	2.1
Canada	3,350.1	1,652.3	-50.7	1.8
Hong Kong	4,707.0	1,616.4	-65.7	1.7
El Salvador	1,616.2	1,571.3	-2.8	1.7
Sri Lanka	1,677.4	1,475.6	-12.0	1.6
Philippines	2,289.0	1,426.5	-37.7	1.5
Guatemala	1,498.0	1,399.3	-6.6	1.5
Taiwan	2,755.9	1,187.3	-56.9	1.3
Korea, South	3,071.8	1,119.5	-63.6	1.2
Jordan	52.1	973.9	1769.3	1.0
Nicaragua	336.2	934.4	178.0	1.0
Turkey	1,463.0	930.8	-36.4	1.0
Egypt	518.2	913.8	76.3	1.0
Dominican Republic	2,451.2	849.6	-65.3	0.9

Source: OTEXA database.