

APPENDIX F
SOUTH ASIA

Overview

The textile and apparel sector remains the primary engine for economic growth in South Asia, an area that includes Bangladesh, India, Pakistan, and Sri Lanka. For each of these countries, the textile and apparel sector accounts for a significant portion of traded goods, contributing between 25 percent (India) and 86 percent (Bangladesh) of the total value of exports in 2001.¹ South Asian countries are highly dependent on the sector for both jobs and export earnings.

The textile and apparel sectors in Bangladesh, India, Pakistan, and Sri Lanka exhibit different degrees of specialization. While firms in Pakistan specialize in cotton textile intermediate goods (yarn and grey fabric), as well as towels and bed linen, firms in Bangladesh and Sri Lanka remain export-oriented apparel producers, dependent on imported inputs such as yarn and fabric to augment local textile production. India has developed a highly complex sector covering the entire value and production chain from fiber production to garment manufacture and packaging. Firms in South Asia generally are not vertically integrated, and are, for the most part, independent, privately owned small and medium-size firms.²

Textile and apparel exports from South Asian countries rose during 1997-2001. Total Bangladeshi exports increased from \$3.9 billion in 1997 to \$5.5 billion in 2001; almost all of the increase was in exports of apparel products to U.S. and EU markets. Total Indian exports rose from \$9.6 billion in 1997 to \$12.2 billion in 2000; exports of both textiles and apparel products to U.S., EU, and Canadian markets rose significantly.³ Pakistani and Sri Lankan textile and apparel exports rose slightly during 1997-2001, but growth was hampered by declines in exports to the EU.

According to official U.S. trade statistics, U.S. imports of textiles and apparel from Bangladesh, India, Pakistan, and Sri Lanka together rose by 73 percent during 1997-2002 to 5.8 billion square meters equivalent (SMEs), valued at \$8.5 billion. Apparel accounted for 38 percent (2.2 billion SMEs), of the quantity but 72 percent (\$6.1 billion) of the value of total imports from the South Asian countries as a group in 2002. Most of the apparel consisted of cotton garments. The remainder of the sector imports from the south Asian countries consisted of textile products, which accounted for 62 percent of the quantity (3.6 billion SMEs) but 28 percent of the value (\$2.4 billion).

¹ Trade data in this “overview” are United Nations data. Data for India for 2001 were estimated by USITC staff.

² Several firms within the larger South Asian textile and apparel sector have become vertically integrated in recent years. For example, bed linens in Pakistan are produced by large, integrated units that continue to upgrade capacity with new machines when needed.

³ The 2001 data for India are not available.

Bangladesh¹

Overview

Bangladesh is one of the world's poorest and most densely populated countries, with a per capita income of \$362 in 2000 and a population of 137 million in an area the size of Wisconsin.² Bangladesh has a rural-based economy, with the agricultural sector employing almost two-thirds of the workforce and representing one-third of GDP. The apparel-dominated manufacturing sector accounted for 9 percent of GDP in 2000.³ Bangladesh has a large apparel industry which, along with its smaller textile industry, generated 86 percent of total exports in 2001. Bangladesh's apparel exports grew by 48 percent during 1997-2001 to \$5.6 billion; however, the apparel industry relies heavily on imports for its inputs (e.g., fabrics), which totaled \$1.0 billion in 2001. Bangladesh's major trading partners in textiles and apparel are the European Union (EU) and the United States, which account for almost all of its apparel exports, while other Asian countries, led by China, India, and Korea, are the major import sources for apparel inputs. Most of its apparel exports are low-cost garments, such as basic cotton shirts and pants, for which Bangladesh and other major suppliers are constrained by U.S. quotas.

Bangladesh's apparel industry is completely privately owned and export-oriented, while its textile industry is divided roughly equally between state-owned enterprises (SOEs), which are mostly old inefficient mills, and private mills, which tend to be efficient producers of yarns and fabrics.⁴ The country's competitiveness with respect to apparel is largely based on access to an abundant supply of extremely low-cost labor,⁵ as well as preferential market access in the United States, the EU, Canada, Japan, and other countries. However, its labor-cost advantage is somewhat offset by low productivity, largely reflecting low literacy levels, frequent labor unrest, and outdated technology as well as an underdeveloped infrastructure characterized by poor roads, port congestion, and frequent power outages.⁶ To enhance its global competitiveness overall and in textiles and apparel, the Government has taken steps

¹ Prepared by Norman Van Toai, Office of Industries.

² Bangladesh, surrounded by India, Myanmar (Burma), and the Bay of Bengal in southern Asia, is one of 43 least developed countries, as defined by the United Nations Industrial Development Organization (UNIDO) in *International Yearbook of Industrial Statistics 2002*, p. 16. Data on Bangladesh's population and per capita income for 2000 are from the United Nations found at <http://www.un.org>, retrieved Feb. 10, 2003.

³ World Trade Organization (WTO), "Trade Policy Reviews—Bangladesh: May 2000," press release (press/TPRB/132), May 1, 2000, found at <http://www.wto.org>, retrieved Oct. 17, 2002.

⁴ Shabbir Ahmed, Bangladesh Garment Manufacturers and Exporters Association, Bethesda, MD, telephone interview by USITC staff, Feb. 12, 2003.

⁵ An industry official stated that Bangladesh needlework skills in the apparel industry could be considered as superior to those in Indonesia, Malaysia, and even Korea. Bangladeshi workers are capable of producing high-quality, upscale apparel. Industry official, interview by USITC staff, Apr. 1, 2003.

⁶ The World Bank estimated that Bangladesh loses about \$1 billion annually because of power outages and power supply unreliability. See U.S. Department of Energy, Energy Information Agency, *Country Analysis Brief: Bangladesh*, Feb. 2002, p. 2.

to (1) improve the infrastructure and enhance worker skill levels; (2) build new yarn and fabric production capacity in order to reduce the apparel industry's reliance on imported inputs; and (3) liberalize trade and investment policies to attract foreign direct investment (FDI), obtain new technologies, enter new export markets, and promote economic diversification and growth. The recent influx of FDI to develop newly discovered natural gas reserves in the Bay of Bengal has brought hope that expected revenues from the energy sector will be used to improve the country's infrastructure.

Industry Profile

Industry structure and performance

The textile and apparel sector consists of 3,600 firms with a total workforce of 1.6 to 1.8 million workers, 90 percent of whom are women (table F-1).⁷ Indirect employment⁸ totals approximately 10 million, making direct and indirect apparel employment a very significant share of the total workforce. The apparel industry is the country's largest and fastest growing industry although many of its firms still operate as a "cottage industry." The industry is seeking government funding to establish large, modern facilities. The Government reportedly has expressed concern that quota removal in 2005 will expose the industry to greater competition from other low-cost supplying countries and price its goods out of global markets, leading to massive plant closings and job losses.⁹ In contrast, the Bangladesh Textile Mills Association is optimistic that Bangladesh's textile and apparel sector will enjoy expanded market opportunities because it has a mature garment industry, a large local market, and growing backward linkages in the textile industry.¹⁰

The Government has provided financial incentives to help the textile industry modernize and expand its production capacity for yarns and fabrics in an effort to reduce the apparel industry's reliance on imported inputs, as well as to improve the reliability of yarn and fabric supplies and minimize the lead-times for purchases and deliveries of these inputs.¹¹ The

⁷ S.S. Absar, *Why Women Work in Factories in Bangladesh?* and Laura M. Baughman et al., *Estimated Effects on the United States and Bangladesh of Liberalizing U.S. Barriers to Apparel Imports*, Trade Partnership Worldwide, LLC, Washington, DC, prepared for the Bangladesh Garment Manufacturers and Exporters Association, Nov. 26, 2001, p. 4.

⁸ That is, workers in other sectors that owe their employment to the apparel industry. Thus, total direct and indirect employment of the apparel sector accounts for a quarter of total Bangladesh's workforce of 40 million. Official of the Embassy of Bangladesh, interview by USITC staff, Apr. 1, 2003.

⁹ Josephine J. Bow, *Bangladesh's Export-Apparel Industry Into the 21st Century--The Next Challenges* (Dhaka, Bangladesh: The Asia Foundation), Nov. 2001, and Reuter, *TexWatch News*, found at <http://www.textwatch.com/News/news>, retrieved Nov. 6, 2002, p. 1.

¹⁰ U.S. Department of State telegram 2675, "Two Views of Garment Sector After Quotas," prepared by U.S. Embassy, Dhaka, Sept. 12, 2002.

¹¹ Bangladesh industry officials reportedly have expressed concern that the cost of Indian yarns and fabrics will rise rapidly as a result of increased demand for these inputs by China, the world's largest producer and exporter of textiles and apparel. See Vijay Trivedi, "Chinese Textile Exporters Seek Indian Yarn, Grey fabric Suppliers," *The Financial Express*, Apr. 28, 2002.

industry has added more than 1 million spindles since 1995 to process (spin) fibers into yarns.¹² As a result, the textile industry has reportedly enhanced its capability to support the apparel industry's yarn needs for knitwear production (e.g., polo shirts and T-shirts) and its woven fabric needs for production of casual apparel such as shirts and pants. To reduce imports of apparel inputs further, the Government has announced plans to provide funds to build significantly more textile production capacity at a time when it is seeking to privatize or reduce the number of SOEs.¹³ As a way to improve the domestic textile sector, in November 2002, the Bangladesh Textile Mills Association (BTMA), a trade group representing textile mills, urged that the Government eliminate all duties and taxes, provide low-interest loans and partial subsidies of utility costs and port fees, and enforce the ban on importing of Indian textiles into the country over land.¹⁴

Factors of production

Raw materials

The textile and apparel sector relies heavily on imports for its production inputs, including fibers, yarns, fabrics, and findings (e.g., buttons).¹⁵ The sector is cotton-based, with most of the cotton coming from India and the United States (local farmers supply only about 5 percent of Bangladesh's cotton needs). Cotton demand was expected to reach 220,000 tons in the 12-month period ending July 2002. Cotton imports are expected to rise fivefold between 1998 and 2005, reflecting the addition of new spinning capacity, increased demand for cotton yarn, and substitution of lower priced cotton for polyester fibers.

In 2000, the apparel industry imported roughly 70 percent of its inputs, including 30 percent of its yarns and 80 percent of its woven fabrics.¹⁶ The small but growing use of local inputs partly reflected Government efforts to promote the development of yarn and fabric production and to offer export bonuses of 25 percent for garments made of local content. Reportedly, in 1999, almost 10 percent of the 141 yarn-spinning mills had the capability to produce export-quality yarns and their combined yarn capacity was 96 million kilograms, or about 20 percent of total domestic demand of 447 million kilograms.¹⁷ The textile industry

¹² The World Bank, Background Paper: Bangladesh Development Forum, "Bangladesh: Globalization, the Investment Climate and Poverty Reduction," Mar. 2002, p. 10.

¹³ Ken Stier, "The Garment Trade May Unravel . . . but a New Port Would Help," *Business Week*, June 6, 2001, p. 5.

¹⁴ CybertGT Technology Indonesia, *Textile Chief Unveil Industry Blueprint*, Nov. 12, 2002, found at <http://www.cybergt.com/gt/11-02/08-01.html>, retrieved Nov. 12, 2002.

¹⁵ Information in paragraph is mainly from the EmergingTextiles.com article, June 18, 2002, found at <http://emergingtextiles.com>, retrieved Nov. 27, 2002, and U.S. Department of Commerce, "Leading Sectors For U.S. Exports and Investment 1999," National Trade Data Bank, Sept. 3, 1999.

¹⁶ Selim Raihan, *The Textile and Clothing Industry of Bangladesh: In a Changing World Economy*, Center for Policy Dialogue, Report No. 18, Dec. 1999; Laura M. Baughman et al., *Estimated Effects on the United States and Bangladesh of Liberalizing U.S. Barriers to Apparel Imports*, p. 5; and EmergingTextiles.com, Apr. 15, 2002, found at <http://emergingtextiles.com>, retrieved Nov. 8, 2002.

¹⁷ U.S. Department of Commerce, National Trade Data Bank, Sept. 3, 1999.

reportedly can satisfy 80 percent of local demand for knitwear yarns, but only about 20 percent of the demand for woven fabrics.¹⁸ According to a U.S. importer, there are at least four or five big mills that have the capability to produce quality yarns and fabrics for use in production of apparel for export to developed-country markets. However, Bangladesh's apparel producers reportedly claim that yarns and fabrics made locally are lower in quality but much higher in price than imports. For example, the cost of denim fabric made in Bangladesh is \$1.09 per meter, compared with \$0.90 (c.i.f.) for similar fabrics made in China.¹⁹

Labor

The textile and apparel sector has access to an abundant supply of low-cost labor, which is somewhat offset by low productivity in relation to China. The hourly compensation rate in the textile sector was \$0.25 per hour, and for apparel, about \$0.39 per hour in 2002; both were less than the hourly compensation rates for textiles and apparel in China.²⁰ Low productivity in the sector stems from low skill levels, reflecting low literacy rates, and limited use of modern technology.²¹ In an effort to improve labor standards, the Government signed the Geneva Child Labor Agreement to abolish child labor on June 16, 2002.²²

Investment

FDI in Bangladesh is relatively small overall and concentrated in the energy sector.²³ It accounted for 2 percent of GDP and 10 percent of gross fixed investment in FY 1999.²⁴ The limited FDI largely reflected Bangladesh's underdeveloped infrastructure (e.g., the national electrification rate is 30 percent), inadequate port facilities, and frequent occurrences of

¹⁸ Official of the Embassy of Bangladesh, interview by USITC staff, Washington, DC, Apr. 1, 2003.

¹⁹ Trade official, Embassy of Bangladesh, interview by USITC staff, Washington, DC, Nov. 15, 2002.

²⁰ Based on data in Chapter 3, table 3-1 of this report.

²¹ The literacy rate of Bangladesh was 52 percent in 2000, the second-lowest in South Asia ahead of only Afghanistan. The Bangladesh Government plans to improve enrollment in primary schools up to 100 percent. See Directorate General, External Relations, European Commission, *Country Strategy Paper: Bangladesh, 2000-2006*, pp. 12 and 14.

²² U.S. Embassy, Dhaka, "U.S. Welcomes Agreement to Continue Program For Elimination of Child Labor in Bangladesh's Export Garment Industry," June 18, 2002, found at <http://www.usembassy-dhaka.org>.

²³ The majority of the FDI is for the energy sector including natural gas and power production. The World Bank, "Foreign Direct Investment in Bangladesh," Oct. 1999.

²⁴ The World Bank, "Foreign Direct Investment in Bangladesh," Oct. 1999, pp. 13, 14, and 18.

natural disasters, civil and labor unrest, and political upheavals.²⁵ During 1991-2001, the United States was the largest foreign direct investor in Bangladesh with \$5.5 billion, followed by the United Kingdom at \$1.6 billion, Malaysia at \$1.3 billion, and Japan at \$1.1 billion.²⁶ Most FDI in the textile and apparel sector reportedly is from investors attracted by its low labor costs and access to EU and U.S. markets.

The Government is seeking to attract FDI from textile and apparel producers in countries such as Thailand, Taiwan, Korea, and China; and encourage U.S. mills to transfer equipment from recently closed U.S. facilities.²⁷ The Government has also held discussions with Germany, Bangladesh's biggest market in the EU, to upgrade technology in Bangladesh's textile and apparel sector (German exports of textile machinery to Bangladesh in 2001 rose by 60 percent over the 2000 level to 42 million euros).²⁸

Government Policies

The Government, which had nationalized all industries following independence in 1972, seeks to privatize its still-dominant public sector, attract FDI, and diversify its economy away from agriculture into export industries such as textiles and apparel. It began to privatize textile mills in 1981, including selling mills directly to employees.²⁹ Currently, it is estimated that roughly one-half of the textile mills are SOEs, while the apparel industry is entirely privately owned.

To enhance the country's industrial competitiveness, the Government has recently taken steps to promote economic diversification and growth. These steps include (1) increasing workforce skill levels, (2) modernizing the capital equipment stock, (3) privatizing and downscaling SOEs, (4) upgrading the financial and physical infrastructure, (5) improving export marketing efforts, (6) building new production capacity for textiles to reduce the apparel industry's reliance on imported inputs, and (7) liberalizing trade and investment policies to attract FDI as a means to obtain technology transfers and investment funds.³⁰

The WTO Trade Policy Review Body (TPRB) has commended Bangladesh for making considerable progress in reducing tariffs and quantitative restrictions on imports. However, its tariffs remain higher than those of many other countries because import duties are

²⁵ Asian Development Bank, "Bangladesh: Globalization, the Investment Climate and Poverty Reduction," Mar. 13, 2002, and U.S. Department of Energy, Energy Information Agency, "Country Analysis Briefs: Bangladesh," Feb. 2002.

²⁶ Bank of Bangladesh, found at http://www.boibd.org/-image/so8urce_country.gif, retrieved Nov. 5, 2002.

²⁷ Official of the Embassy of Bangladesh, interview by USITC staff, Washington, DC, Apr. 1, 2003.

²⁸ M. Saifur Rahman, Finance and Planning Minister of Bangladesh, as reported in *The Independent*, Oct. 30, 2002, found at <http://web1.epnet.com>, retrieved Nov. 5, 2002.

²⁹ IMF, Bangladesh, Selected Issues and Statistical Appendix, Apr. 15, 2002, p. 13.

³⁰ EmergingTextiles.com, June 18, 2002, found at <http://emergingtextiles.com>, retrieved Nov. 8, 2002.

Bangladesh's key source of revenue. The TPRB suggested that the Government expedite the country's structural reforms.³¹

The Government's Export Development Strategy and Trade Policy³² are intended to upgrade export quality, diversify export products, expand textile upstream industries, and promote the use of local content to enhance the value-added in the textile industry.³³ To develop upstream industries, the Government plans to provide funds to establish new textile mills in an effort to shorten lead-times for the apparel industry, enhance industrial efficiencies, and upgrade product quality.³⁴ The Government has launched a Custom and Modernization Program to upgrade its foreign trade management capacity and established export processing zones in Dhaka, the capital, and Chittagong, a major seaport.³⁵

The Government has also sought to expand foreign trade with neighboring countries through negotiation of a South Asian Preferential Trading Agreement and the negotiation of tariff concessions from members of the South Asian Association for Regional Cooperation (SAARC).³⁶ For example, Bangladesh has held talks with India to narrow its bilateral trade deficit by removing tariff and nontariff barriers to increase Bangladesh exports to the North Eastern Indian states.

Bangladesh benefits from duty-free and quota-free treatment on exports to the EU and also trade preferences on exports to Japan, Canada, Norway, and New Zealand. Under a "regional cumulation" provision, the EU extends trade preferences to imports of qualifying apparel made in Bangladesh from fabrics produced in India and Pakistan.³⁷

Foreign Trade

Because of preferential treatment in the two largest markets, the EU and the United States, Bangladesh's trade surplus in textiles and apparel rose by 81 percent during 1997-2001 to \$4.2 billion (table F-1), reflecting an increase of 43 percent in exports, to \$5.5 billion, and 16 percent in imports, to \$1.3 billion. Textiles and apparel accounted for 86 percent of total merchandise exports and 17 percent of total imports in 2001. The principal sector export is

³¹ Duties account for one-third of Bangladesh's total tax revenues. WTO, *Bangladesh: May 2000*, found at <http://www.wto.org/english>, retrieved Oct. 17, 2002.

³² These policies include the Bangladesh's Export Development Strategy of the Fifth Five-Year Plan (1997-2002) and the 1998 Five-Year Trade Policy. These are overlapping strategies.

³³ Directorate General, External Relations, European Commission, *Country Strategy Paper: Bangladesh, 2000-2006*, p. 13.

³⁴ "Government to Provide Special Fund for Textile Sector," *The Independent*, Oct. 30, 2002, found at <http://web1.epnet.com>, retrieved Nov. 5, 2002.

³⁵ U.S. Department of Energy, Energy Information Agency, "Country Analysis Briefs: Bangladesh," Feb. 2002, and WTO, "Bangladesh: May 2000, Trade Policy Review," press release, May 1, 2000.

³⁶ SAARC members include Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

³⁷ Information in this paragraph is mainly from EmergingTextiles.com, June 18, 2002, found at <http://emergingtextiles.com>, retrieved Nov. 8, 2002.

apparel, while the major imports are apparel inputs such as fabrics. The EU and the United States are the major markets for Bangladesh's sector exports, while other Asian countries are the main sources of Bangladesh's sector imports.

Imports

Bangladesh imported \$1.3 billion of textile products in 2001 for use in the production of apparel for export and another \$168 million in textile fibers such as cotton (F-1). Most of the fiber imports came from the United States (\$79 million) and Australia (\$23 million). United Nations (UN) trade data as reported by Bangladesh show that the major suppliers of fabric inputs in 2001 were China (\$441 million), India (an estimated \$245 million), and Korea (\$232 million). The relative importance of India and Pakistan (\$68 million) as fabric suppliers partly reflects the fact that garments made in Bangladesh from Indian and Pakistani materials are eligible for duty-free and quota-free entry into the EU under its rules of origin for regional cumulation, which extends trade preferences to apparel made in Bangladesh of textile materials produced in SAARC countries.³⁸

Exports

All but a small part of Bangladesh's textile and apparel exports go to the EU (50 percent of the 2001 total, or \$2.7 billion) and the United States (42 percent, or \$2.4 billion) (table F-2). Bangladesh's exports of qualifying garments to the EU are eligible for duty-free entry under the EU Generalized System of Preferences (GSP).³⁹ The trade-weighted average U.S. tariff on imports of apparel from Bangladesh was 15.5 percent ad valorem in 2001.

U.S. imports of textiles and apparel from Bangladesh rose by 53 percent during 1997-2002 to 1.2 billion square meters equivalent (SMEs), valued at \$2.2 billion (table F-3). In 2002, however, imports fell for the first time in many years, by 2 percent in quantity and 3 percent in value, largely reflecting weak demand for apparel. Bangladesh shipments to the United States are concentrated in apparel, which accounted for 80 percent of the quantity but 95 percent of the value of its U.S. textile and apparel shipments in 2002. Its apparel shipments peaked in 2000, then fell by less than 0.5 percent in 2001 and by another 4 percent in 2002, to 930 million SMEs (valued at \$1.9 billion). As a result, Bangladesh's share of the U.S. apparel import volume fell from 6.0 percent in 2000 to 5.5 percent in 2002, when it was the fourth-largest foreign supplier, trailing only Mexico, China, and Honduras.

Similar to other major suppliers to the U.S. apparel market, Bangladesh cotton and manmade-fiber garments are generally constrained by quotas. The principal quota products from Bangladesh are shirts and blouses (both knit and woven), pants, underwear, jackets, and sleepwear, for which it ranks among the largest suppliers. In 2001, Bangladesh filled

³⁸ Laura M. Baughman, "Estimated Effects on the United States and Bangladesh of Liberalizing U.S. Barriers to Apparel Imports," p. 5.

³⁹ The EU has offered SAARC cumulation provision according to which the EU rules of origin will be waived for Bangladesh products if the input materials originate in an SAARC country. EU European Commission, *Country Strategy Paper, Bangladesh, 2002-2006*, p. 18.

all but 1 of its 21 quotas, which covered articles representing 51 percent of the quantity and 66 percent of the value of its total U.S. textile and apparel shipments.⁴⁰ In October 2002, the United States penalized Bangladesh for exceeding its 2002 quota on cotton trousers by reducing this quota for 2003 by three times the additional access granted in 2002. Among quota-free apparel products from Bangladesh, imports of Bangladeshi cotton sweaters accelerated rapidly from 2.6 million SMEs (\$3.4 million) in 1997 to 38.1 million SMEs (\$80 million) in 2002.

⁴⁰ The only nonapparel article covered by quota was cotton shop towels (industrial wiping cloths).

Table F-1
Bangladesh: Statistical profile of textile and apparel sector and foreign trade, 1997-2001

Item	1997	1998	1999	2000	2001
Number of establishments:					
Textiles	12,278	(¹)	(¹)	(¹)	(¹)
Apparel	2,412	(¹)	(¹)	(¹)	3,600
Total	14,690	(¹)	(¹)	(¹)	(¹)
Number of workers:					
Textiles (1,000)	473	(¹)	(¹)	(¹)	(¹)
Apparel (1,000)	999	(¹)	(¹)	(¹)	1,800
Total	1,472	(¹)	(¹)	(¹)	(¹)
Installed spinning capacities:					
Short-staple spindles (1,000)	2,810.0	2,899.0	2,469.0	2,469.0	2,469.0
Long-staple spindles (1,000)	15.0	15.0	15.0	15.0	15.0
Open-end rotors (1,000)	43.0	45.9	55.9	55.9	55.9
Installed weaving capacities:					
Shuttleless looms (number)	² 1,300	² 2,500	² 3,200	² 3,200	² 3,200
Shuttle looms (number)	² 9,000	² 3,000	² 4,700	² 4,700	² 4,700
Factor output:					
Textiles (million dollars)	1,592.0	(¹)	(¹)	(¹)	(¹)
Apparel (million dollars)	3,622.8	(¹)	(¹)	(¹)	(¹)
Production:					
Textiles (million dollars)	530.0	(¹)	(¹)	(¹)	(¹)
Apparel (million dollars)	892.3	(¹)	(¹)	(¹)	(¹)
Gross fixed capital formation:					
Textiles (million dollars)	166.2	(¹)	(¹)	(¹)	(¹)
Apparel (million dollars)	25.7	(¹)	(¹)	(¹)	(¹)
Mill fiber consumption:					
Cotton (1,000 metric tons)	142.9	153.0	174.6	166.0	126.7
Manmade fibers (1,000 metric tons)	47.7	48.7	50.2	57.8	59.5
Wool (1,000 metric tons)6	.8	.8	.5	.6
Total (1,000 metric tons)	191.2	202.5	225.6	224.3	186.8
Foreign trade:					
Exports:					
Textiles (million dollars)	374.9	361.2	344.4	395.9	374.1
Apparel (million dollars)	3,502.4	3,870.0	4,027.6	5,029.2	5,153.0
Total (million dollars)	3,877.3	4,231.2	4,372.0	5,425.1	5,527.1
Imports:					
Textiles (million dollars)	1,513.2	1,292.9	1,350.1	1,675.9	1,258.5
Apparel (million dollars)	35.6	33.3	33.4	39.4	43.3
Total (million dollars)	1,548.8	1,326.2	1,383.5	1,715.2	1,301.8
Trade balance:					
Textiles (million dollars)	-1,138.3	-931.7	-1,005.7	-1,280.0	-884.4
Apparel (million dollars)	3,466.8	3,836.6	3,994.2	4,989.8	5,109.7
Total (million dollars)	2,328.5	2,905.0	2,988.5	3,709.8	4,225.3

¹ Not available.

² In addition, there were approximately 25,000 powerlooms and 500,000 hand-looms in the nonmill sector.

Note.—Because of rounding, figures may not add to totals shown.

Source: Industry data compiled from United Nations Industrial Development Organization, *International Yearbook of Industrial Statistics 2002 (1997 data)*; Laura M. Baughman et al., *Estimated Effects on the United States and Bangladesh of Liberalizing U.S. Barriers to Apparel Imports*, 2001 (2001 data); the International Textile Manufacturers Federation (Zurich), *International Textile Machinery Shipment Statistics*, vol. 25/2002, and selected back issues; Geerdes International, Inc., Richmond, VA, facsimile to Commission staff, Feb. 4, 2003; and trade data are United Nations data as reported by Bangladesh's trading partners.

Table F-2
Bangladesh: Exports of textiles and apparel, by selected markets, 1997-2001

Item and market	1997	1998	1999	2000	2001
	<i>Million dollars</i>				
Textiles (SITC 65):					
Quota markets:					
United States	42	70	79	91	108
European Union	117	112	106	122	128
Canada	3	4	6	7	12
Subtotal	162	187	191	221	247
All other:					
Iran	45	31	38	32	39
Turkey	15	24	23	25	21
Japan	14	11	11	13	9
Other	138	109	81	106	57
Subtotal	213	175	153	175	127
Grand total	375	361	344	396	374
Apparel (SITC 84):					
Quota markets:					
United States	1,557	1,733	1,812	2,292	2,244
European Union	1,742	1,921	1,986	2,436	2,615
Canada	75	84	87	104	104
Subtotal	3,374	3,738	3,885	4,832	4,962
All other	129	132	143	197	191
Grand total	3,502	3,870	4,028	5,029	5,153
Textiles and apparel:					
Quota markets:					
United States	1,599	1,803	1,891	2,383	2,352
European Union	1,859	2,034	2,092	2,559	2,742
Canada	78	88	93	111	115
Subtotal	3,536	3,924	4,076	5,053	5,210
All other	341	307	296	372	317
Grand total	3,877	4,231	4,372	5,425	5,527
	<i>Percent</i>				
Share of exports going to quota markets:					
Textiles	43	52	56	56	66
Apparel	96	97	96	96	96
Average	91	93	93	93	94

Note.—Because of rounding, figures may not add to totals shown.

Source: Compiled from United Nations data.

Table F-3
Textiles and apparel: U.S. general imports from Bangladesh, by specified product categories,¹
1997-2002

Cat.		1997	1998	1999	2000	2001	2002
No.	Description	<i>1,000 square meter equivalent</i>					
0	Textiles and apparel, total	764,510	865,537	10,519	1,130,770	1,169,041	1,149,969
1	Apparel	671,763	743,516	773,077	966,612	965,942	927,717
2	Textiles	92,747	122,022	137,442	164,158	203,099	222,252
14	Other miscellaneous articles	92,012	118,714	131,207	151,954	192,112	214,172
30	Cotton textiles and apparel	508,829	561,266	597,627	674,640	702,638	701,220
31	Cotton apparel	438,227	484,966	507,469	583,645	601,968	577,162
32	Cotton textiles	70,602	76,301	90,158	90,995	100,670	124,058
40	Wool textiles and apparel	2,687	7,310	6,513	7,528	6,515	3,942
60	Manmade-fiber textiles and apparel	245,080	278,194	283,441	418,195	429,888	423,423
61	Manmade-fiber apparel	224,406	233,623	237,844	345,473	327,908	325,563
62	Manmade-fiber textiles	20,674	44,572	45,597	72,721	101,979	97,860
80	Silk blend/veg fiber textiles/apparel	7,914	18,766	22,938	30,408	30,000	21,384
237	Playsuits	11,502	11,949	11,451	8,113	9,352	6,500
239	Babies' apparel	21,840	27,097	23,643	32,146	42,594	34,765
334	Other cotton coats, men/boys	5,168	5,173	4,592	7,894	7,857	7,521
335	Cotton coats, women/girls	5,534	8,312	4,505	7,411	5,384	10,868
336	Cotton dresses	7,074	8,680	9,902	9,436	9,563	13,849
338	Cotton knit shirts, men/boys	6,260	6,193	7,261	7,600	8,853	8,426
339	Cotton knit shirts, women/girls	2,561	2,222	3,591	4,332	4,677	7,003
340	Cotton not knit shirts, men/boys	61,264	66,580	60,662	80,001	78,358	75,950
341	Cotton not knit blouses	19,384	22,014	32,297	39,790	35,448	29,145
342	Cotton skirts	3,132	3,989	4,672	7,725	6,643	9,592
347	Cotton trousers, men/boys	28,567	27,202	33,799	33,239	29,645	34,415
348	Cotton trousers, women/girls	13,337	12,288	15,869	17,168	22,864	30,391
350	Cotton robes	9,259	9,948	12,192	12,244	11,546	10,223
351	Cotton nightwear	33,560	32,441	28,709	42,853	40,725	47,202
352	Cotton underwear	90,454	95,034	103,341	99,304	108,539	116,153
363	Cotton terry and other pile towels	9,055	11,931	11,355	11,975	13,194	16,513
369	Other cotton manufactures	60,862	60,919	71,935	63,322	72,506	83,456
634	Other manmade coats, men/boys	21,487	19,224	14,682	24,466	28,127	27,695
635	Manmade-fiber coats, women/girls	14,232	12,811	11,650	17,346	17,928	20,462
636	Manmade-fiber dresses	4,294	9,925	10,111	14,207	13,879	11,917
638	Manmade knit shirts, men/boys	14,955	16,869	16,541	22,129	18,145	18,285
639	Manmade knit shirts, women/girls	9,367	6,066	8,308	10,716	9,038	10,852
640	Manmade not knit shirts, men/boys	1,797	1,518	3,404	10,843	10,507	9,213
641	Manmade-fiber not knit blouses	5,702	6,539	5,199	8,857	8,821	8,092
646	Manmade-fiber sweaters, women/girls	13,044	13,424	5,827	13,402	11,984	11,496
647	Manmade-fiber trousers, men/boys	15,631	19,190	19,082	22,037	24,870	29,381
648	Manmade-fiber trousers, women/girls	9,078	7,310	10,731	10,506	11,046	11,271
652	Manmade-fiber underwear	8,299	16,818	19,050	18,903	30,898	39,092
659	Other manmade-fiber apparel	89,812	84,755	93,042	148,804	116,142	99,330
669	Other manmade-fiber manufactures	16,521	38,458	35,825	58,927	84,838	86,786

¹ To administer the U.S. textiles and apparel quota programs, articles are grouped under 3-digit category numbers, which cover many 10-digit statistical reporting numbers under which goods are classified for statistical purposes in the Harmonized Tariff Schedule of the United States (HTS). The 1-digit and 2-digit numbers represent specific levels of import aggregation for articles covered by the quota program (e.g., the number "1" represents total imports of apparel, while "31" represents total imports of cotton apparel).

Source: Compiled from official statistics of the U.S. Department of Commerce, found at <http://otexa.ita.doc.gov>.

Overview

India is believed to be the world's second-largest producer of textiles and apparel after China.² The textile and apparel sector is one of India's oldest and most important economic sectors, second only to agriculture in terms of employment, net foreign earnings, and industrial production.³ In 2000-01, the sector accounted for more than 14 percent of national industrial production, 27 percent of total exports, 4 percent of gross domestic product (GDP), and 11 percent of the total workforce (or 35 million workers).⁴

India's textile and apparel sector is highly diverse and covers the entire supply chain from fiber production through spinning, weaving, knitting, and dyeing and finishing, to production of finished goods such as apparel and home textiles. Although the sector is primarily cotton based,⁵ it benefits from access to a wide range of textile fibers for which India is a major world producer such as manmade fibers, jute, linen and silk. The sector also benefits from access to a vast pool of workers, both skilled and unskilled, as well as technicians and managers, at relatively low wage rates; and English is the language of business. The sector has the capability to produce both basic garments in long runs and fashion goods in smaller and more flexible runs. A large and growing domestic market, totaling an estimated \$26 billion in 2001 and expected to rise to more than \$41 billion by 2005,⁶ supports a broad textile and apparel sector.⁷ India's strengths have enabled it to compete in the world market in terms of price and quality.

¹ Prepared by William L. Greene, Office of Industries.

² "Report: India's Textile Industry," *Asian Textile Business*, May 2002, p. 30, found at <http://www.blonnet.com>, retrieved Jan. 10, 2003.

³ Sharad Mistry and Sanjoy Jog, "Global Cotton Grorolis For 14 Removal of Distortions," *The Financial Express*, July 2002, found at <http://www.financialexpress.com/fe/fulstory.php/contentid=13158>, retrieved Jan. 10, 2003. Savita Gaur, "Star Export," *Textile Asia*, Aug. 2001, p. 98.

⁴ Annual Report 2001-2002, Ministry of Textiles, found at <http://texmin.nic.in/annualrep/ar02con.htm>, retrieved Jan. 30, 2003; G. Srinivasan, "Gvt. Upbeat on Investment in Textile Ind.," *Business Line*, Apr. 6, 2001, found at <http://www.blonnet.com>, retrieved Jan. 10, 2003; Samar Verma, *Export Competitiveness of Indian Textile and Garment Industry*, Indian Council for Research on International Economic Relations, Working Paper No. 94, Nov. 2002.

⁵ Cotton currently accounts for about 55 percent of India's total fiber consumption, compared with roughly 90 percent of total fiber consumption in the mid-1970s to about 55 percent today. Most wool used in India is imported from New Zealand and Australia. Industry officials, interviews by USITC staff, Lubhiana, India; and "Local Textile Industry Can Meet Future Demand Too," *Financial Express*, July 29, 2002, found at <http://www.financialexpress-.com>, retrieved Jan. 8, 2003.

⁶ Sri Ram Khanna and the IBC Research Team, "Prospects for the Fibre, Textile and Apparel Markets in India," *Textile Outlook International* (United Kingdom: Textiles Intelligence), Jan.-Feb. 2002, p. 34.

⁷ Industry officials, interviews by USITC staff, Coimbatore, Tamil Nadu, India, Nov. 1 and 5, 2002.

However, India's advantages have been offset somewhat by the sector's structure, aging plants and equipment, high operating costs, and government policies.⁸ Operating costs such as power and interest rates are higher and productivity is lower than major competitors in East and Southeast Asia. Government tax and regulatory policies have favored small producers at the expense of larger enterprises. India's textile and apparel sector is dominated by a vast number of small and inefficient producers that employ antiquated machinery and equipment. This sector is expected to undergo extensive structural change after the quota regime is abolished in 2005, and a large number of India's mills and processing houses are expected to close since many have not achieved sufficient economies of scale or developed the efficiencies needed to compete in the international market.⁹

Industry Profile

As a significant source of employment, the Indian textile and apparel sector has traditionally been heavily regulated by the government. Government regulations and incentives have promoted and protected small companies in this sector since the 1950s. Firms with an investment in both plants and machinery of 10 million rupees or less qualify for a number of preferences.¹⁰

The small-scale industry (SSI) sector controls more than 95 percent of India's looms and performs weaving, fabric processing, and apparel manufacturing. Until recently, SSI firms were the only Indian manufacturers permitted to produce solely for the domestic market. All others had to export at least 50 percent of their production. The small-scale nature of the industry prevented companies from achieving economies of scale, from investing in new state-of-the-art technology, and from specializing. India's taxation policies also favor small-scale producers. SSI producers were exempted from excise duties imposed on the apparel sector in 2000.

The Indian textile and apparel sector has experienced extraordinary growth since India's independence. India is second only to China in spindle capacity, with a little more than 20 percent share of the world total (table F-4). However, many segments of India's textile and apparel sector, especially the weaving segment, employ obsolete equipment. For example, nearly 4 million of the 5.6 million looms in India are handlooms, and only 1.3 percent are shuttleless looms.

Currently, the Indian apparel industry produces between 5.2 billion and 5.5 billion pieces per year, with a domestic market of \$26 billion. The industry is highly fragmented and is

⁸ Ibid., Lubhiana; New Delhi; and Coimbatore, Tamil Nadu, India, Nov. 1, 5, and 7, 2002.

⁹ "Textile Exports Show Welcome Revival," *Business Standard*, Dec. 19, 2002, found at <http://www.business-standard.com/archives/2002/dec/50191202.003.asp>, retrieved Feb. 24, 2003; and "Tax Structure for Textile Sector May Be Rationalised Further," *Financial Express*, Nov. 8, 2001, found at <http://www.financialexpress.com>, retrieved Jan. 9, 2003.

¹⁰ In the 1950s, the investment limit was 500,000 rupees. It has been raised several times and was set at 10 million rupees in 1997. India Export Import Portal, "Investment Limits," *SSI Corner*, found at <http://exim.indiamart.com>, retrieved May 15, 2003. Information in paragraph is from *Annual Reports*, Ministry of Textiles, found at <http://texmin.nic.in>, retrieved Jan. 10, 2003.

spread over the entire country.¹¹ There is very little vertical integration in the apparel industry, which consists primarily of independent, privately owned small- and medium-sized firms with most firms operating on a 2 percent average profit margin.¹² These small firms remained viable largely because the government “reserved” the domestic apparel market for the SSI producers, which accounted for more than 95 percent of Indian apparel production prior to 1990.¹³ The Government “de-reserved” the woven segment of the apparel market in 2001 and de-reservation of the knitted segment in the Budget 2002-03.¹⁴ Although India has some of the world’s lowest labor costs, its total production costs are among the highest in the world. Labor costs have declined as a percentage of production, whereas power and other costs continued to grow. In 2002, power accounted for between 12 and 13 percent of total costs, up from 5 percent in the 1980s. Most of the remainder of the industry’s costs is accounted for by raw materials (62 to 75 percent) and labor costs (7 to 8 percent, down from 12 percent in the 1990s).¹⁵

Weaving is performed throughout the country, whereas a significant portion of the cotton spinning takes place in the south and most of the synthetic spinning and composite mills are located in the west and north.¹⁶ India’s nonapparel textile industry consists of three principal segments: the handloom and powerloom SSI segment, an organized mill segment, and a crafts segment.¹⁷ The vast majority of weaving and knitting operations are performed by SSI firms with less than 30 machines per production unit. According to data of the Ministry of Textiles, there were approximately 1.7 million powerlooms in the decentralized sector and 3.9 million handlooms in the handloom sector during 1998-2000. There are fewer than 3,000 mills in the organized sector, and among them, there are only 1,000 large integrated mills (performing spinning, weaving, and finishing).

¹¹ Industry officials, interviews by USITC staff, New Delhi, Oct. 31, 2002.

¹² Industry officials, interviews by USITC staff, Coimbatore, Tamil Nadu, India, Nov. 5, 2002.

¹³ “What India Wears,” *Textile Asia*, June 2001, p. 64.

¹⁴ Press Information Bureau, Government of India, “Steps Taken for Increasing Exports of Garments,” Apr. 18, 2002, found at <http://pib.nic.in>, retrieved May 14, 2003.

¹⁵ Industry official, interview by USITC staff, Coimbatore, Tamil Nadu, India, Nov. 5, 2002.

¹⁶ Industry official, interview by USITC staff, Coimbatore, Tamil Nadu, India, Nov. 5, 2002.

¹⁷ The handloom segment consists principally of small, family-owned production units having three to five manually operated looms. Production is very low, usually no more than 5 meters per day compared to 250 to 300 meters on a modern loom. The powerloom SSI segment includes weavers with 10 to 50 looms and employs antiquated powered shuttle looms. Both segments include a high percentage of subcontractors for exporters, are beneficiaries of government tax and fiscal programs, and are exempt from most government labor regulations. Most of the looms are more than 12 to 15 years old. Productivity and quality are very low in both segments, and neither has the capital to upgrade and modernize equipment. In many instances, these firms act as ancillaries to larger firms by performing contract work. *Annual Reports*, Ministry of Textiles, found at <http://texmin.nic.in>.

Industry structure and performance

Textiles

India's textile industry employs approximately 15 million workers¹⁸ and has steadily expanded production since the late 1990s (table F-4). India ranks among the world leaders in the production of cotton yarn and of manmade fibers and filament yarns. India's annual production of fabrics totals 42 billion square meters, 15 percent of which consists of blended-fiber fabrics for apparel, furnishings, and upholstery. Indian consumption of textile fibers continues to be low at 8.7 kilograms per person, compared with 9.1 kilograms in China and 36.9 kilograms in the United States.

Indian production of spun yarn and fabric in 2001-2002 totaled an estimated 4.2 billion kilograms and 42 million square meters, respectively. Manmade fiber yarn is one of the fastest-growing segments. For example, in the last 5 years, the consumption of polyester staple fiber has grown from less than 20,000 tons per month to more than 45,000 tons per month, and industry sources report the potential for consumption to grow by another 50 percent over the next 5 years.¹⁹ Cotton fabric accounted for 47 percent of total Indian fabric produced in 2001, yet most of India's cotton fabric is reportedly made on antiquated looms capable of producing only marginal quality fabric at very low productivity levels.²⁰ In 1998, nearly 71 percent of India's fabric output came from the decentralized SSI sector, 23 percent from the handloom sector, and 6 percent from the organized mill sector.²¹

India's textile industry is highly fragmented, with the exception of spinning, which is possibly the industry's strength. Most of India's cotton spinning is performed in the State of Tamil Nadu (cities of Coimbatore and Tirupur), whereas spinning of manmade fibers takes place principally in the State of Punjab.²² India's export-oriented spinning segment is internationally competitive and is made up of mostly medium- and large-scale factories. Spinning is the industry's most technologically sophisticated segment and includes most of India's vertically integrated composite production facilities that perform spinning, weaving, and processing. Cotton dominates India's spinning segment and accounts for more than 55 percent of the value of yarn production. The spinning segment has an 80 percent capacity utilization rate and accounts for more than 20 percent of world production of cotton yarn.²³

¹⁸ Indian Cotton Mills' Federation, found at <http://www.icmfindia.com>, retrieved May 28, 2003.

¹⁹ Industry official, interview by USITC staff, New Delhi (Nodia), Nov. 1, 2002.

²⁰ Ministry of Textiles, Government of India, "Kashiram Rana Urges States to Reap Full Benefit of Schemes for Weavers and Artisans; Sinha Calls for Creation of Separate Department of Textiles in Different States," Apr. 10, 2001, found at http://texmin.nic.in/pr_04102001.htm, retrieved Oct. 8, 2002.

²¹ "Textile Industry - A Flashback," *Financial Express*, Jan. 17, 2000, found at <http://www.financialexpress.com/fe/daily/20000117/ffe11115.html>, retrieved Jan. 13, 2003.

²² Industry official, interview by USITC staff, Tirupur, Tamil Nadu, India, Nov. 6, 2002.

²³ "Indian Textile Policy-2000," IndiaMart, found at <http://www.apparel.indiamart.com/indiantextilepolicy-/index.html>, retrieved Jan. 17, 2003.

Nevertheless, the spinning sector maintains excess capacity and over 70 percent of its short-staple spindles are more than 10 years old.

In 2000-01, India's knitting segment constituted approximately 1 percent of the world's global production. Production is concentrated in Tirupur and Ludhiana (Punjab) and over 75 percent of India's exports of knitwear, especially cotton, is produced in Tirupur, whereas Ludhiana produces primarily for domestic consumption.²⁴ Traditionally, knitting and weaving have been biased toward cotton, but in the last 5 years there has been a shift in consumer demand toward synthetics and blends. Yarn is produced by all three sectors of the industry, but cloth is produced mainly by the SSI sector. A major weakness in India's industry is its inability to produce defect-free cloth meeting the specifications of both domestic and international mills.²⁵

Weaving, dyeing, finishing, and processing reportedly are the weakest links in India's textile industry. Because it is not economical to run a composite mill, many weavers operate multiple small mills which tends to create production bottlenecks.²⁶ Most of the small weaving units subcontract for the export market. India's knitters do not possess capacity to perform dyeing, processing, and finishing to international standards because of the high capital costs associated with the purchase of modern state-of-the-art machinery.²⁷ Small, independent processing houses, which perform nearly 90 percent of the industry's processing and finishing, tend to employ very low-end technology. Most work as job processors for small garment exporters.

In the face of intense international competition brought on by the end of the quota regime and the demand for higher quality and manufacturing versatility, industry sources anticipate that many of India's small-scale textile producers will close. As of November 2002, 338 mills closed, reportedly due to declining domestic and export demand, a global recession, rising production costs, reduced profits, and government imposed labor market rigidities.²⁸ Also, a number of mills owned by the federal and the state governments closed, including 66 owned by the National Textile Corporation (NTC).²⁹ The Indian government estimated that these closures resulted in the loss of approximately 575 million kilograms of yarn production, 736 million square meters of fabric production, and more than 362,180

²⁴ Industry officials, interviews by USITC staff, Ludhiana and Tirupur, Tamil Nadu, India, Nov. 6, 2002; *Tirupur Exporters Association (TEA) Bulletin*, Nov. 2002; and Knitwear Club, July-Aug. 2002, June 2001, May-June 2002, and Oct. 2001.

²⁵ "Textile Industry Not Shipshape," *Business Line*, Oct. 15, 2002, found at <http://www.thehindubusinessline-.com/2002/10/16/stories/2002101602040300.htm>, retrieved Jan. 10, 2003.

²⁶ Industry officials, interviews by USITC staff, Ludhiana and Tirupur, Tamil Nadu, India, Nov. 6, 2002; *Tirupur Exporters Association (TEA) Bulletin*, Nov. 2002; and Knitwear Club, July-Aug. 2002, June 2001, May-June 2002, and Oct. 2001.

²⁷ *Sectors of the Textile Industry*, Confederation of Indian Industry (CII), found at <http://www.ciionline.org/busserv/textile/sectors.html>, retrieved Jan. 13, 2003.

²⁸ G. Gurumurthy, "48 More Textile Mills Shut Shop in Apr.-Nov.," *Business Line*, Feb. 6, 2003, found at <http://www.thehindubusinessline.com/bline/2003/02/07/stories/2003020701-990440.htm>, retrieved Jan. 13, 2003.

²⁹ "Restructuring of State-Owned Textile Behemoth Begins," *Asian Textile Business*, Oct. 2002, p. 47.

jobs. Approximately 9.5 million spindles, 60,000 rotors, and 71,541 looms were idle as of March 2002.³⁰

Apparel

India's apparel industry is one of the country's largest foreign-exchange earners; it is also the most fragmented industry of the sector. The Indian apparel market has grown by more than 20 percent in recent years and is estimated to be valued at \$26 billion. There are approximately 27,000 domestic manufacturers, 48,000 contractors, and 1,000 manufacturer-exporters.³¹ The industry is dominated by fabricators and subcontractors that account for more than 72 percent of manufacturing capacity.³² India's strength lies in the manufacture of medium-quality and relatively high-fashion ready-made apparel produced in small lots for niche segments of the domestic and export markets (e.g., containing garments of considerable embroidery).³³ The majority of the fabricators are small firms with 30 to 50 machines that produce primarily for the quota markets and account for nearly 75 percent of total domestic apparel production.³⁴ In 2001-02, the government opened the domestic apparel market to participation by large- and medium-sized companies, which now can produce apparel without being obligated to export a certain percentage of their output.³⁵

More than 50 percent of India's knitwear is manufactured in Tirupur (Tamil Nadu). The growth of production was principally in response to the introduction of textile quotas by the United States, the EU, and Canada.³⁶ The majority of Tirupur's production is for the lower price segments of the market. Although exports constitute a large share of production, over the last 4 to 5 years production for the local market has grown by 12 to 13 percent, whereas export production has grown only by 2 to 3 percent. Most industry experts do not expect many of the smaller garment producers manufacturing for the local market or performing as jobbers to survive in the post-quota era. India's knitwear segment has an advantage in the middle and upper-middle price ranges and it already supplies garments to the world's leading labels.³⁷

Recently, Indian consumer buying patterns and behavior have shifted substantially. Because of a large and growing middle class, rising incomes, and greater exposure to international fashion trends, urban Indians are slowly shifting from custom-made tailored clothing to contemporary, ready-to-wear garments.³⁸ The ready-to-wear market was estimated at \$1.3 billion in 2002 representing a small share of apparel consumption in India.³⁹

³⁰ "Report: India's Textile Industry," *Asian Textile Business*, May 2002, p. 30.

³¹ Confederation of Indian Industry (CII), *The Garment Manufacturing Sector*, found at <http://www.ciionline.org>, retrieved Jan. 13, 2003.

³² Ibid.

³³ Industry officials, interviews by USITC staff, New Delhi, Oct. 31, 2002.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid., Tirupur, Tamil Nadu, Nov. 6, 2002.

³⁷ Ibid., New Delhi and Tamil Nadu, Nov. 5-8, 2002.

³⁸ "What India Wears," *Textile Asia*, June 2001, p. 64.

³⁹ Bhagyashree Pande, "Textile Majors Set Eyes on Readywear Segment," *Financial Express*, Oct. 30, 2002, found at <http://financialexpress.com>, retrieved Jan. 9, 2003.

The market for ready-made women's garments in India is small but growing, since it is fashionable in the large urban areas to shift from saris, sherwanis, and other traditional ethnic-regional apparel to Western wear. However, the market for women's ready-to-wear garments is smaller than for men's clothing because more older women continue to purchase traditional clothing. Yet, the younger generation of women is demanding items such as trousers, jackets, jeans, and T-shirts. In the last 3 years, more than 65 national and subnational regional brands have been established in India.⁴⁰

Because of the increasing price of cotton garments and improved comfort, durability, and longevity of blended cotton-polyester garments, blended and manmade-fiber garments are growing in popularity. In India's rural areas, where 70 percent of the population still resides, apparel produced from manmade-fiber materials is in higher demand as it becomes less expensive vis-a-vis all-cotton garments. As the domestic market shifts from cotton to manmade fibers, most of the apparel produced from cotton is being exported to quota-imposing countries.⁴¹

Factors of production

Raw materials

Cotton

The Indian textile industry is highly dependent on cotton, which accounts for 75 percent of the fiber used by the spinning segment and 57 percent of total mill fiber consumption in 2001.⁴² India is the world's third-largest cotton producer (after China and the United States) and has 9 million hectares under cultivation, according to the Ministry of Textiles. Domestic Indian cotton, grown largely by small farmers on 1.5 to 2 acre plots, ranges from short staple to extra-long staple (20 to 38 mm). In accordance with government regulations, 40 percent of all cotton sold in India is in hank form to ensure a sufficient yarn supply for India's handloom segment.⁴³ Prior to January 2003, the hank yarn requirement was 50 percent.⁴⁴ Textile mills have lobbied the government unsuccessfully to lower hank yarn obligation to 30 percent of domestic sales.

⁴⁰ Industry officials, interview by USITC staff, Nadu New Delhi, Nov. 1, 2002.

⁴¹ Ibid., Tamil Nadu, Nov. 5, 2002.

⁴² Ministry of Textiles, *Annual Report 2000-2001*, IndiaMart, found at <http://apparel.indiamart.com/annual-report/raw-material.htm>, retrieved Oct. 16, 2002, and Geerdes International, Inc., Richmond, VA, facsimile to USITC staff, Feb. 4, 2003.

⁴³ Under the "hank yarn obligation," the Government of India requires the organized mill sector to supply the handloom sector with yarn suitable for use in the manufacture of fabrics on handlooms at favorable prices.

⁴⁴ Joseph Vackayil, "Reduction Inadequate, SIMA Seeks Abolition of Hank Yarn Obligation," *Financial Express*, Jan. 19, 2003, found at <http://www.financialexpress.com>, retrieved May 16, 2003.

Because of hand picking, inadequate storage facilities, antiquated equipment, and obsolete packing and pressing methods, Indian cotton is reported to be among the most contaminated in the world.⁴⁵ India also has one of the lowest yields in the world. Whereas the world average cotton yield is nearly 900 to 1,000 kilograms (kgs) per hectare, India's yield is only 330 kg per hectare. Because India has limited irrigated lands in its cotton belt, states such as Gujarat, Madhya Pradesh, and Maharashtra are dependent on rainfall from monsoons, and yields can be dramatically affected by drought or a delay in the monsoon season.⁴⁶

Since India's cotton yield is not keeping pace with the growth in consumption, textile mills have begun to import cotton principally from the United States, Australia, Latin America, and South Africa.⁴⁷ To improve yields, the Indian government recently approved limited, experimental cultivation of genetically modified, insect-protected transgenic Bt cotton (Bt stands for *bacillus thuringiensis*) in six states. It is anticipated that Bt cotton will enable farmers to increase their yields to between 1,000 and 1,200 kg per hectare.⁴⁸ To moderate imports, the government doubled the import duty on cotton to 10 percent in January 2002.⁴⁹

Manmade fibers

Manmade fibers accounted for 42 percent of India's mill fiber consumption in 2001.⁵⁰ India was the world's fifth-largest producer of synthetic fibers in 2001 (3.1 billion pounds), trailing China (16.1 billion pounds), Taiwan (6.6 billion), the United States (5.8 billion), and Korea (5.2 billion).⁵¹ India's synthetic fiber production reportedly is concentrated in polyester; India's production of polyester fiber is estimated at 1,500 tons per day.⁵²

Leading synthetic producers in India include Reliance Industries, Indo Rama Synthetics, and Rajasthan Spinning and Weaving Mills. Reliance Industries indicated that it is India's largest producer of polyester, accounting for over 51 percent of domestic production, and that it is the world's second-largest producer of polyester staple fiber and polyester filament

⁴⁵ Officials of the North India Textile Mills Association (NITMA), interviews by USITC staff, New Delhi, Oct. 31, 2002.

⁴⁶ India's principal cotton states are Gujarat, Karnataka, Maharashtra, Punjab, Andhra Pradesh, Haryana, Rajasthan, and Tamil Nadu. NITMA officials, interviews by USITC staff, New Delhi, Oct. 31, 2002.

⁴⁷ India employs older roller gins and estimates that it needs 1,200 new ginning machines to modernize and improve its ginning facilities. The United States is said to have the lowest contamination rates in the world and India imports large quantities of pima cotton from California and Arizona. NITMA officials, interviews by USITC staff, New Delhi, Oct. 31, 2002, and Tamil Nadu, Nov. 5, 2002.

⁴⁸ "GM Cotton Finally Cleared," *Asian Textile Business*, June 2002, p. 56.

⁴⁹ "Cotton Textile Products Will Be Expensive Say Experts," *Business Standard*, Jan. 10, 2003, found at <http://www.business-standard.com/archives/2002>, retrieved Feb. 8, 2003.

⁵⁰ Geerdes International, Inc., Richmond, VA, facsimile to USITC staff, Feb. 4, 2002.

⁵¹ Fiber Economics Bureau, Inc., *Fiber Organon* (Arlington, VA), July 2002, pp. 120-123.

⁵² Industry official, interviews by USITC staff, Coimbatore, Tamil Nadu, Nov. 5, 2002 and Ludhiana, Nov. 7, 2002.

yarn, with production facilities throughout India.⁵³ Reliance is a vertically integrated company with state-of-the art plants and equipment. According to Reliance, its polyester production increased by 12 percent in 2001-02 to 812,000 metric tons with plans to increase production to 1.2 million metric tons by 2005.⁵⁴

The average consumption of manmade fibers in India is estimated to be very low at 3 kilograms per person, compared with 6 kilograms in China and 12 to 13 kilograms in the United States.⁵⁵ However, as noted above, there has been a shift in consumer preferences toward blends and synthetics. As a result, Indian demand for synthetics grew by 13 percent in 1999-2000 and by 2.5 percent in 2000-01.

Labor

The Indian textile and apparel sector employs 35 million workers, which represents 11 percent of the total labor force. India possesses a vast pool of skilled and unskilled workers employed on a 48-hour, 6-day work week. Salaries vary by occupational specialty and are set by the Minimum Wage Act. In some regions, workers are paid at a piece rate, especially where men make up most of the workforce. In other regions, monthly wages generally average \$40 to \$42 per month for unskilled workers and \$54 to \$80 per month for skilled workers.⁵⁶ Indian textile and apparel workers, especially in the organized sector, are represented by unions. India's labor laws allow unions to be tied to political parties, making it difficult for mills to lay off workers.⁵⁷ Mill owners tend to limit mill size to less than 1,000 workers to mitigate the effect of India's labor laws and of strikes or other work stoppages. Working conditions are similar to those in other developing countries and workers are covered by a variety of social security measures.⁵⁸

India's low wage rates are partially offset by high overall production costs and low labor productivity, the lack of flexibility in domestic labor laws, increasing fuel and power costs, and obsolete machinery and equipment. Many companies have shifted a significant portion of their production to subcontractors and fabricators to minimize the cost of direct labor.⁵⁹ Also, labor laws designed to protect workers and the SSI sector have greatly restricted layoffs and the adoption of modern machinery. The cost of labor as a percentage of total production costs in the Indian textile and apparel sector reportedly declined from 12 percent in the 1990s to between 7 and 8 percent in 2002.⁶⁰ According to the Garment Exporters Association (GEA), wages in India are approximately 10 percent lower than in China, but differences in productivity translate to labor costs that are effectively 40 percent higher.⁶¹

⁵³ Bharat Desai, Senior Vice President, Business Analysis, and Madhu Suthanan, Manager Business Analysis, Reliance Industries, interview by USITC staff, Oct. 30, 2002.

⁵⁴ Reliance Industries, *Annual Report 2000-01*, found at <http://www.ril.com>.

⁵⁵ NITMA official, interview by USITC staff, New Delhi, Oct. 31, 2002.

⁵⁶ "The Far Pavilions: India's Apparel Industry," *Bobbin*, Nov. 2001, p. 51.

⁵⁷ Official of Apparel Export Promotion Council, interview by USITC staff, New Delhi, Oct. 31, 2002.

⁵⁸ *Ibid.*

⁵⁹ NITMA officials, interview by USITC staff, New Delhi, Oct. 31, 2002.

⁶⁰ Industry officials, interview by USITC staff, Tamil Nadu, Nov. 5, 2002.

⁶¹ "The Far Pavilions," p. 51.

Consequently, the unit cost is higher in India than in China. The GEA maintains that the average Indian worker can produce 10 shirts per day whereas the average Chinese worker can produce 22 shirts per day, which effectively gives Chinese manufacturers a wage advantage.

Technology

Since the early 1990s, the Indian textile and apparel sector has experienced an infusion of new technology that principally entailed shifting from manual controls to computer-controlled machines. However, most production equipment is old and operates slowly and inefficiently. In the weaving segment, many looms are outmoded and are used to produce plain, striped, and checkered fabrics.⁶² India recently allowed the importation of used textile and apparel machinery, and the estimated number of used shuttleless looms operating in India is expected to grow to between 1,500 and 2,000 by the end of 2002, with imports of new machines ranging between 800 and 1,000 units.⁶³ The organized mill sector reportedly has imported modern looms to produce defect-free cloth and higher-end fabrics.⁶⁴ In 2002, India imported 4,000 shuttleless looms and is expected to import an additional 5,000 looms in 2003.⁶⁵

India has approximately 20 producers of textile machinery for spinning, weaving, texturing, and finishing. However, most machines used for cotton spinning, carding, winding, knitting, weaving, dyeing and finishing, and texturing are imported from Europe, the United States, Korea, or Japan. The use of computer-aided design (CAD) and computer-integrated manufacturing (CIM) remains limited, and it is reported that only about 300 CAD installations in India perform design, pattern making, grading, and marking.⁶⁶

To encourage the rapid integration of new technologies, the government lowered import duties on textile machines from 15 percent to 5 percent and implemented the Technology Upgradation Fund (TUF). The \$5.9 billion TUF program was designed to facilitate investment and modernize the industry, particularly the weaving and processing segments through greenfield projects and the upgrade of machinery, labor, and raw materials.⁶⁷

⁶² "Technology Upgradation," BharatTextiles.com, found at <http://bharattextile.com/library/003002.php>, retrieved May 17, 2003.

⁶³ "Investment in Weaving Grows," *Asian Textile Business*, Oct. 2002, p. 46.

⁶⁴ "Technology Upgradation," BharatTextile.com, Dec. 12, 2002, found at <http://www.bharattextile.com/library/003002.php>, retrieved Dec. 12, 2002.

⁶⁵ Official of Ministry of Textiles, interview by USITC staff, Udyog Bhawan, Nov. 8, 2002.

⁶⁶ "The Far Pavilions," p. 51.

⁶⁷ The TUF program is a 5-percentage-point, government-borne interest reimbursement or a 12 percent upfront subsidy, credit-linked, capital subsidy scheme on the interest charged by the financial institution for money loaned to textile mills for either modernization or technology improvement. As of Jan. 1, 2001, approximately 1,000 applications had been received and 800 loans had been approved, totaling \$875 million. For a variety of reasons, many segments of the industry have yet to take advantage of the TUF, and most of the loans have been to larger mills. Prime lending rates for major public sector banks have declined to 12 percent in 2003 from 16 to 17 percent in the 1990s. Ministry of Textiles, *Annual Report 2001-2002*, found at http://texmin.nic.in/annualrep/ar02_con.htm, retrieved Jan. 10, 2003.

Although the program called for installation of 50,000 new shuttleless looms and modernization of 250,000 semi/auto looms⁶⁸ in the decentralized textile segment, only a limited number of mills invested in new equipment in 2001-02, as both domestic demand for cotton yarn and exports declined.⁶⁹

Investment

India's apparel industry has made substantial investments to modernize its manufacturing capabilities to meet anticipated demand after 2005. The government's National Textile Policy 2000 established a desired investment target of \$1.2 billion to reach India's goal of \$25 billion in exports by 2010. The Indian Apparel Export Council predicted that India's textile and apparel sector would double its investment in new machinery and facilities within the next several years.⁷⁰ Domestic investment in the garment industry reportedly is expected to exceed \$167 million by the middle of 2004 as the apparel industry places greater emphasis on imports of specialized machinery for stitching, preparatory, and post-production operations.

In January 2001, the Indian government increased the permissible level of foreign equity participation in the Indian textile and apparel industry from 49 percent to 100 percent and also abolished the existing licensing system on the importation of textile products. However, these measures, combined with the de-reservation of the apparel industry, have thus far failed to attract meaningful levels of foreign direct investment (FDI). Since the early 1990s, proposed FDI in India's textile and apparel sector totaled only \$715 million and proposed FDI for January-May 2002 was estimated at \$4.9 million.⁷¹ Low labor productivity, restrictive labor laws, the rising costs of inputs and power, and infrastructure bottlenecks continue to discourage FDI. Further, many banks are reluctant to loan limited investment funds to India's textile and apparel sector, and interest rates continue to be high, especially when compared to the United States and Western Europe.⁷²

⁶⁸ Ibid.

⁶⁹ Industry officials, interview by USITC staff, India, Oct. 31-Nov. 7, 2002.

⁷⁰ Savita Gaur, "On Recovery Road?" *Textile Asia*, Sept. 2002, p. 82.

⁷¹ Rajeev Jayaswal, "Garment Industry Still in Tatters as Far as FDI Is Concerned," *Financial Express*, Aug. 13, 2002, found at http://www.financialexpress.com/print.php?content_id=15192, retrieved Jan. 9, 2003.

⁷² Officials of the Indian Ministry of Textiles, interview by USITC staff, New Delhi, Nov. 8, 2002.

Government Policies

Domestic policies

The Union Budget for 2001-02⁷³ includes measures intended to assist the Indian textile and apparel sector in becoming internationally competitive in terms of price and quality. Recent measures instituted by the government to improve the industry's competitive position include the de-reservation of the ready-made garments segment; elimination of limits on FDI; creation of the Technology Mission on Cotton to improve the yield and quality of India's cotton crop; reduction of customs duties on imported textile machines, permitting imports of used machines, and acceleration of depreciation schedules on new machinery; the dismantlement of quantitative restrictions (QRs) on 342 textile and apparel products; reduction of excise duties on fabrics, made-up textile articles, and garments from 16 percent to 12 percent; establishment of the Textile Centres Infrastructure Development Scheme (TCIDS) to improve the infrastructure and facilities of important textile centers; capitalization of the National Institute for Fashion Technology to train indigenous fashion designers; and implementation of the TUF.⁷⁴

To attract FDI and increase exports, the government recently approved the creation of Integrated Apparel Parks in Tronica City (Uttar Pradesh) and Ghaziabad and Surat (Gujarat). Various Indian states have submitted proposals for additional Integrated Apparel Parks.⁷⁵

Trade policies

Although India is a member of the South Asian Association for Regional Cooperation (SAARC), it continues to maintain quotas and other restrictions on imports of textiles and apparel from other SAARC members.⁷⁶ Separately, under the Indo-Nepal Trade Treaty, India limits imports of acrylic yarn from SAARC member Nepal.⁷⁷ Also, there is very little formal trade between India and Pakistan due to the ongoing dispute over Kashmir. Since 1992-93, India has initiated a total of 121 antidumping cases and reportedly is second only to the United States in the number of cases it has filed.⁷⁸ In 2001-02, India initiated 30 antidumping cases, including 5 cases involving textile fibers which result in the imposition of duties on acrylic yarn from Nepal and Italy; partially oriented yarn from Korea and

⁷³ Information on the Union Budget is available from the website of the Ministry of Finance at <http://www.indiabudget.nic.in>.

⁷⁴ The TUF program, as discussed earlier, has met with limited success.

⁷⁵ Rajeev Jayaswal, "Garment Industry Still in Tatters as Far as FDI Is Concerned."

⁷⁶ SAARC members include Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

⁷⁷ According to a trade report, in April-December 2002, India's imports of acrylic yarn from Nepal totaled 709.7 million tons, while the quota was 10,000 million tons. See "Revised Norms for Quota Imports from Nepal," *Business Standard*, Feb. 10, 2003, found at <http://www.business-standard.com/archives/2003/feb/50100203.020.asp>, retrieved Feb. 24, 2003.

⁷⁸ Aradhna Aggarwal, *Antidumping Law and Practice: An Indian Perspective* (Indian Council for Research on International Economic Relations, Apr. 2002).

Turkey; polyester staple fiber from Korea, Malaysia, Taiwan, and Thailand; and acrylic fibers from Germany, the United Kingdom, Bulgaria, and Brazil.⁷⁹

To increase its share of world trade and address the fact that India is not a member of a major, regional free-trade agreement, Indian Prime Minister A.B. Vajpayee met with the ASEAN Business Summit in October 2002 to discuss how India could develop closer economic ties with ASEAN. In 2002, India-ASEAN trade totaled \$10 billion, which represented slightly more than 1 percent of ASEAN's \$720 billion external trade.⁸⁰ Indian and ASEAN officials agreed to work toward the creation of a free trade area. This process would advance former Prime Minister Narasimha Rao's 1992 "Look East" policy to enhance India's economic ties with its Asian neighbors.

Many of India's prohibition and licensing schemes used to ban or limit imports were removed in 2001. As part of an agreement with the United States, India removed QRs on imports of 342 textile and apparel products.⁸¹ However, imports are still subject to certain restrictions, including high tariff rates. India's average bound duty rate for textiles and apparel is approximately 88 percent ad valorem and its applied rate ranges between 26 and 29 percent.⁸² After additional taxes are added to applied rates, the levy can be as high as 73 percent ad valorem.

Foreign Trade

India's trade surplus in textiles and apparel increased by 21 percent during 1997-2001 to \$11 billion (table F-4). The trade surplus is expected to narrow in 2002 due to declining exports to quota countries caused by the worldwide recession, the aftereffects of the attacks of September 11, and an overvalued rupee vis-a-vis the currencies of India's leading competitors. Indian exporters and importers expect trade patterns to change significantly after the quota regime is abolished in 2005. Indian industry officials predict that China and India will emerge as the principal beneficiaries if no new restrictions or preferential trade treaties are put in place after quotas are removed.⁸³

⁷⁹ Ministry of Commerce and Industry, Department of Commerce, *Annual Report 2002-2003*, found at <http://www.comerce.nic.in>, retrieved June 16, 2003; "India Initiated 30 Antidumping Cases Last Year," Indo-Asian News Service, May 3, 2001, found at <http://in.news.yahoo.com/-020503/43/1n82e.html>, retrieved Feb. 24, 2003; and "India Ready to Halve Textile Tariffs," *EmergingTextiles.com*, July 15, 2002, found at <http://www.emergingtextiles.com>, retrieved Oct. 17, 2002.

⁸⁰ S.D. Naik, "India and Asean: Towards Enhancing Economic Partnership," *Hindu Business Line*, Oct. 16, 2002, found at <http://www.blonnet.com/2002/10/16/stories/2002101600050800-.htm>, retrieved Feb. 20, 2003.

⁸¹ Office of the United States Trade Representative, "U.S. Lands India's Lifting of QRs," *rediff.com*, Apr. 6, 2001, found at <http://www.rediff.com/money/201/apr/06qr.htm>, retrieved June 13, 2003.

⁸² Malcolm Subhan, "Where Clouds Will Break," *Textile Asia*, June 2002, pp. 5-6.

⁸³ Industry officials, interviews by USITC staff, India, Oct. 31-Nov. 7, 2002.

Imports

India's imports of textiles and apparel increased by 65 percent during the 1997-2001 period. Imports consisted principally of cotton yarns and fabrics, filament yarn, spun blended yarn, made-ups, and ready-made apparel. Textiles accounted for virtually all of the imports during the period. Yarns and fabrics were the principal imports, accounting for over 90 percent of the total textile imports in 2000. Manmade-fiber yarn accounted for about 80 percent of total yarn imports in 2000. India's principal sources of textile and apparel imports include Taiwan, China, and Korea (together accounting for about 40 percent of the value in 2000). About 5 percent of the value of India's total textile and apparel imports were from the United States in 2001.⁸⁴

Due to the rising cost of domestic cotton and its reported contamination problems, combined with the inability of Indian weavers to produce defect-free cloth, many mills are now importing raw cotton from the United States, Latin America, South Africa, and Australia, as well as finished cotton fabrics from Southeast Asia and China.

Exports

India is one of the world's 10 largest exporters of textiles and apparel and is heavily reliant on exports to sustain its industry. Presently, approximately 28,000 companies in India export apparel, but reportedly less than 5 percent are internationally competitive. The Indian textile and apparel sector is expected to undergo extensive structural changes, and only 7,000 to 8,000 exporters are expected to survive following quota elimination in 2005.⁸⁵ To become more competitive, Indian exporters have signaled a willingness to use higher-performance textiles and make significant investments in order to move up the value-added chain rather than concentrating on commodities such as yarn and fabric where margins reportedly are very small.⁸⁶

India exports more than 30 percent of its total textile and apparel production, with sector exports accounting for 26 percent of India's total merchandise exports in 2001 (table F-4). According to the Ministry of Textiles, India's exports of textiles and apparel are projected to exceed \$50 billion by 2010. Garments account for over one-half of India's textile and apparel exports. Other leading exports include cotton yarns and fabrics, and made-up textile articles. Cotton apparel accounts for the majority of India's apparel exports.⁸⁷

Although India ranks among the world's leading suppliers of cotton yarn, India's cotton yarn exports were negatively affected by reduced demand in the United States, Canada, and the EU for garments produced in Bangladesh, Korea, and Taiwan that use Indian cotton yarn.

⁸⁴ Based on United Nations trade data.

⁸⁵ "Textile Exports Show Welcome Revival," *Business Standard*, Dec. 19, 2002, found at <http://www.business-standard.com/archive/2002/dec/50191202.003.asp>, retrieved Feb. 24, 2003.

⁸⁶ Industry official, interview by USITC staff, Nadu, New Delhi, Nov. 1, 2002.

⁸⁷ "Gateway to India: India's Apparel Export Manufacturing Industry," *Just-style.com*, p. 6.

In 2000, cotton yarn exports declined 14 percent by quantity to 457 million kilograms and 16 percent by value to \$1.2 billion.⁸⁸

India's primary export markets are the United States (25 percent) and the EU (31 percent) (table F-5). The remainder of India's exports is spread over a number of non-quota countries, especially the UAE, Japan, and the former Soviet republics. The Middle East is India's principal export market for synthetics and blended textiles.

The United States had binding quotas on nine categories of textile and apparel products from India in 2002, and a binding group quota, which effectively limited U.S. imports from India of all other textile and apparel items not subject to individual quotas. Indian exporters have primarily targeted niche markets in the quota countries, where they supply a broad range of semi-fashion, mid-priced casual wear (T-shirts, shirts, blouses, dresses, and skirts) and high-quality fashion items.⁸⁹ Quota categories with "fill rates" of 90 percent or more in 2002 included men's (and boys') cotton and manmade-fiber coats; knitted cotton shirts and blouses; men's cotton and manmade-fiber woven shirts; cotton sweaters; cotton trousers, slacks and shorts; cotton and manmade-fiber nightwear and pajamas; and cotton terry and other pile towels (table F-6). India also fully utilized its EU quotas in a number of product categories in 2002. Among the Indian products subject to binding EU quotas included cotton and artificial (e.g., rayon) yarn, knit and woven shirts; sweaters; dresses; and trousers.⁹⁰ During 1999, the estimated export tax equivalents for Indian garment exports to the United States and the EU were approximately 40 percent and 19 percent, respectively.⁹¹

The 3.8 percent decline in Indian exports of sector goods in 2001, compared with 2000 (table F-4), was attributed to the strength of the rupee against the currencies of its competitors, the slowed economies of its principal trading partners, the lack of preferential regional trade agreements, as well as the war in Afghanistan and the aftereffects of the attacks of September 11.⁹² Rising production, distribution, and transaction costs also have resulted in an erosion in the price advantage held by Indian products in many quota-country markets.⁹³ However, India's exports to the United States showed improvement during the later half of 2001 and during the April-July period of 2002, as exports increased from \$908 million to \$992 million after falling by 9.3 percent during the April-July period of the

⁸⁸ "Fall in India's Cotton Textile Exports," EmergingTextiles.com, found at <http://www.emergingtextiles.com/?q=art&s=020124-coun&r=search&n=19>, retrieved Oct. 17, 2002.

⁸⁹ "Gateway to India: India's Apparel Export Manufacturing Industry," Just-style.com, p. 6.

⁹⁰ Based on EU data, available at <http://www.sigl.cec.eu.int/>.

⁹¹ Sanjay Kathuria, Will Martin, and Anjali Bhardwaj, *Implications for South Asian Countries of Abolishing the Multifiber Agreement*, World Bank, Nov. 2001.

⁹² Ajit Lakra, Superfine Knitters, interview by USITC staff, Ludhiana, Nov. 7, 2002.

⁹³ Transaction costs include the cost of credit, local scales taxes, power costs, and handling and transportation costs. These costs account for 10 to 15 percent of production costs. Kavitha Venkatraman and P. Vinod Kumar, "Textiles Sector Needs to Gear Up for Global Arena," *Financial Express*, July 21, 2002, found at http://www.financialexpress.com/fe_full_story.php?content_id=13572, retrieved Jan. 9, 2003.

previous year.⁹⁴ In the near future, Indian cotton textile producers see China as a potentially huge market for their exports of medium-staple fiber, yarn, and other textile items where China faces shortfalls. Cotton textile exports to China during 2000-2001 totaled approximately \$67 million, and the industry expects exports to reach \$104 million within the next 5 years.⁹⁵

Indian exporters are facing increasing competition from Bangladesh, Pakistan, China, and Sri Lanka in the United States, the EU, Japan, and Canada. With regard to the EU market, the increased competition reportedly was due in part to special quota and tariff concessions extended to Pakistan by the EU during 2001-2002.⁹⁶ Further, Indian exports of bed linen declined significantly in 2001 after the EU reimposed antidumping duties of 9.6 percent on Indian products.⁹⁷ Similar effects are anticipated from antidumping and countervailing actions against 10 Indian companies selling polyester texturized yarn in the EU, as well as Canada's imposition of a 20 percent import duty on ready-made garments from India while granting duty-free access to garments from Bangladesh.⁹⁸ Indian exporters are also concerned that the United States and other quota countries will erect other types of import barriers when quotas are removed in 2005. Indian exporters also expressed concern over the proliferation of free trade agreements and nonreciprocal tariff preference programs to which India is not a party or beneficiary. According to the Indian exporters, such trade agreements and programs place Indian products at a tariff disadvantage vis-a-vis competitors in important markets such as the United States. Examples include NAFTA and AGOA; current or potential bilateral free-trade agreements between the United States and Jordan, Singapore, Chile, and Australia; and the possibility of a Free Trade Area of the Americas.

⁹⁴ S. Venkitachalam, "Textile Exports to U.S. Jump 9% in April-July," *Financial Express*, Dec. 24, 2002, found at http://www.financialexpress.com/fe_full_story.php?content_id=24533, retrieved Jan. 10, 2003.

⁹⁵ Vijay Trivedi, "Chinese Textile Exporters Seek Indian Yarn, Grey Fabric Suppliers," *Financial Express*, Apr. 28, 2002, found at http://www.financialexpress.com/pring.php?content_id=7784, retrieved Jan. 9, 2003.

⁹⁶ See country profile on Pakistan, below, for further details.

⁹⁷ "Indian Bed Linen Victim of EU's Sanctions," *EmergingTextiles.com*, Aug. 13, 2002, found at <http://www.emergingtextiles.com/?q=art&s=020813>, retrieved Nov. 8, 2002.

⁹⁸ S. Venkitachalam, "Exporters Cry Foul over Canadian Duty on Indian Garments," *Financial Express*, Oct. 8, 2002, found at http://www.financialexpress.com/fe_full_story.php?content_id=19902, retrieved Dec. 17, 2002.

Table F-4
India: Statistical profile of textile and apparel sector and foreign trade, 1997-2001

Item	1997	1998	1999	2000	2001
Textile and apparel share of manufacturing					
value-added (percent)	12	11	10	(¹)	(¹)
Number of mills ²	(¹)	2,924	2,973	3,145	3,087
Spinning mills (non-SSI) ²	(¹)	1,543	1,575	1,665	1,579
Spinning mills (SSI) ²	(¹)	901	921	996	1,046
Composite mills (non-SSI) ²	(¹)	281	285	281	281
Installed spinning capacities:					
Short-staple spindles (1,000)	34,874	35,499	36,910	37,698	38,091
Long-staple spindles (1,000)	950	980	984	990	990
Open-end rotors (1,000)	309	352	442	453	473
Installed weaving capacities:					
Shuttleless looms ⁴ (number)	7,170	7,750	7,955	7,500	11,800
Shuttle looms ⁴ (number)	116,420	116,320	120,439	115,500	129,400
Purchases of large circular knitting machines	(¹)	606	822	835	678
Production index (1997=100):					
Yarns	(¹)	(¹)	(¹)	105.0	103.2
Fabrics	(¹)	(¹)	(¹)	88.6	65.4
Average total labor cost per operator hour	(¹)	(¹)	(¹)	\$0.58	³ \$0.57
Fiber production:					
Raw cotton ⁵	(¹)	165	156	140	158
Manmade fibers (million kilograms)	(¹)	782	835	904	834
Raw wool (million kilograms)	(¹)	48	47	47	47
Raw silk (million kilograms)	(¹)	16	15	16	18
Yarn production:					
Cotton yarn (million kilograms)	(¹)	2,022	2,204	2,267	2,212
Other spun yarn (million kilograms)	(¹)	786	815	893	889
Manmade filament yarn (million kilograms)	(¹)	850	894	920	962
Total (million kilograms)	(¹)	3,658	3,913	4,080	4,063
Fabric production:					
Cotton (million square meters)	(¹)	17,948	18,989	19,718	19,769
Blended (million square meters)	(¹)	5,700	5,913	6,351	6,287
100 percent non-cotton (million square meters)	(¹)	12,479	14,306	14,187	15,978
Total (million square meters)	(¹)	36,127	39,208	40,256	42,034
Mill fiber consumption:					
Cotton (1,000 metric tons)	2,664.0	2,707.1	2,911.3	2,979.0	2,917.1
Wool (1,000 metric tons)	51.3	48.9	52.4	54.2	55.6
Manmade fibers (1,000 metric tons)	1,632.9	1,830.4	1,981.1	2,094.1	2,111.3
Total (1,000 metric tons)	4,348.2	4,586.4	4,944.8	5,127.3	5,084.0
Foreign trade:					
Exports:					
Textiles (million dollars)	4,844.0	4,188.9	4,673.6	5,499.1	⁶ 5,048.0
Apparel (million dollars)	4,759.0	5,165.9	5,582.3	6,692.1	⁶ 6,682.0
Total (million dollars)	9,602.9	9,354.8	10,255.9	12,191.2	⁶ 11,730.0
Imports:					
Textiles (million dollars)	390.7	444.1	497.6	574.4	⁶ 600.0
Apparel (million dollars)	8.2	12.1	18.4	25.2	⁶ 25.0
Total (million dollars)	378.9	506.1	516.0	599.5	625.0

See footnotes at end of table.

Table F-4--Continued
India: Statistical profile of textile and apparel sector and foreign trade, 1997-2001

Item	1997	1998	1999	2000	2001
Trade balance:					
Textiles (<i>million dollars</i>)	4,453.2	3,744.8	4,176.0	4,924.7	4,448.0
Apparel (<i>million dollars</i>)	4,750.8	5,153.9	5,563.9	6,667.0	6,657.0
Total (<i>million dollars</i>)	9,204.0	8,898.7	9,739.9	11,591.7	11,105.0

¹ Not available.

² SSI refers to the small-scale industry sectors. Data on the number of mills are from the Ministry of Textiles, Government of India.

³ Represents 2002 data.

⁴ Data are for the mill sector only. In addition, data for 1998-2001 from the Ministry of Textiles, Government of India, show that there were approximately 1.6-1.7 million powerlooms in the decentralized sector and 3.9 million handlooms in the handloom sector.

⁵ 100,000 Indian bales: Indian bales weigh 165 kilograms. U.S. bales weigh 220 kilograms.

⁶ Estimated by the Commission based on the percentage change in world imports from India as reported by India's trading partners.

Note.—Because of rounding, figures may not add to totals shown.

Source: Industry data compiled from the web site of the World Bank (<http://publications.worldbank.org>); International Textile Manufacturers Federation (Zurich), *International Textile Machinery Shipment Statistics*, vol. 25/2002, and *Country Statements 2002*, and selected back issues; Werner International Management Consultants, Reston, VA; mill fiber consumption data from Geerdes International, Inc., Richmond, VA, facsimile to Commission staff, Feb. 4, 2003; and trade data are United Nations data as reported by India, except as noted.

Table F-5
India: Exports of textiles and apparel, by selected markets, 1997-2001

Item and market	1997	1998	1999	2000	2001
	<i>Million dollars</i>				
Textiles (SITC 65):					
Quota markets:					
United States	627	640	741	845	(¹)
European Union	1,465	1,320	1,324	1,501	(¹)
Canada	79	78	86	91	(¹)
Subtotal	2,172	2,037	2,150	2,436	(¹)
All other:					
Afghanistan	2	2	3	5	(¹)
Albania	(²)	0	(²)	(²)	(¹)
Algeria	2	3	3	7	(¹)
Other	2,668	2,146	2,518	3,051	(¹)
Subtotal	2,672	2,151	2,523	3,063	(¹)
Grand total	4,844	4,189	4,674	5,499	(¹)
Apparel (SITC 84):					
Quota markets:					
United States	1,512	1,628	1,698	2,204	(¹)
European Union	1,995	2,010	2,065	2,305	(¹)
Canada	158	190	218	259	(¹)
Subtotal	3,665	3,828	3,980	4,767	(¹)
All other	1,094	1,338	1,602	1,925	(¹)
Grand total	4,759	5,166	5,582	6,692	(¹)
Textiles and apparel:					
Quota markets:					
United States	2,140	2,269	2,438	3,048	(¹)
European Union	3,460	3,329	3,388	3,805	(¹)
Canada	237	268	304	349	(¹)
Subtotal	5,837	5,866	6,130	7,203	(¹)
All other	3,766	3,489	4,126	4,988	(¹)
Grand total	9,603	9,355	10,256	12,191	(¹)
	<i>Percent</i>				
Share of exports going to quota markets:					
Textiles	45	49	46	44	(³)
Apparel	77	74	71	71	(³)
Average	61	61	60	59	(³)

¹ No data reported.

² Less than \$500,000.

³ Not applicable.

Note.—Because of rounding, figures may not add to totals shown.

Source: Compiled from United Nations data.

Table F-6
Textiles and apparel: U.S. general imports from India, by specified product categories,¹ 1997-2002

Cat.		1997	1998	1999	2000	2001	2002
No.	Description	—————1,000 square meters equivalent—————					
0	Textiles and apparel, total	985,739	1,083,648	1,149,428	1,248,337	1,250,245	1,544,689
1	Apparel	315,584	364,260	376,091	399,232	402,811	508,737
2	Textiles	670,155	719,387	773,337	849,106	847,434	1,035,951
11	Yarns	11,894	19,768	16,491	17,542	12,525	23,633
12	Fabrics	230,881	210,044	182,745	191,609	151,196	169,759
14	Other miscellaneous articles	427,381	489,576	574,100	639,955	683,713	842,560
30	Cotton textiles and apparel	844,296	913,314	967,981	1,034,109	1,031,137	1,207,865
31	Cotton apparel	210,615	240,645	246,388	247,886	250,102	338,773
32	Cotton textiles	633,681	672,670	721,593	786,223	781,035	869,092
40	Wool textiles and apparel	14,120	17,145	15,727	19,677	22,746	23,725
60	Manmade-fiber textiles and apparel	116,676	143,185	148,947	174,272	172,214	286,162
61	Manmade-fiber apparel	95,268	109,871	116,305	132,628	129,490	145,347
62	Manmade-fiber textiles	21,407	33,314	32,642	41,644	42,724	140,815
80	Silk blend/veg fiber textiles/apparel	10,648	10,003	16,774	20,279	24,148	26,938
218	Fabrics of different colored yarn	13,052	13,954	12,103	14,057	11,893	16,836
219	Duck fabric of cotton/manmade fiber	68,035	63,697	52,884	58,265	50,955	48,886
229	Special purpose fabric	2,433	4,838	10,802	15,969	18,179	17,168
239	Babies' apparel	3,476	4,489	5,190	10,801	16,980	19,622
313	Cotton sheeting fabric	40,276	30,197	37,139	33,745	17,452	21,099
317	Cotton twill fabric	44,429	31,683	24,353	19,814	11,931	14,117
335	Cotton coats, women/girls	8,950	9,300	9,820	10,315	9,817	13,175
336	Cotton dresses	12,495	13,311	17,226	17,377	14,905	20,373
338	Cotton knit shirts, men/boys	19,385	21,404	20,181	19,368	22,680	29,238
339	Cotton knit shirts, women/girls	3,563	5,459	7,735	7,770	5,780	8,420
340	Cotton not knit shirts, men/boys	39,748	48,838	45,899	45,494	42,070	54,873
341	Cotton not knit blouses	51,848	60,465	55,340	54,969	54,819	80,373
342	Cotton skirts	6,620	5,274	6,747	10,172	9,425	12,345
345	Cotton sweaters	5,398	5,874	6,059	6,924	7,464	6,592
347	Cotton trousers, men/boys	4,798	6,455	5,456	5,912	7,403	10,661
348	Cotton trousers, women/girls	5,762	5,531	5,727	6,629	6,395	9,706
351	Cotton nightwear	11,118	14,667	13,036	13,971	13,996	19,557
352	Cotton underwear	11,229	10,734	17,682	10,361	11,455	26,750
359	Other cotton apparel	18,228	21,268	22,466	21,836	20,126	16,769
361	Cotton sheets	2,882	3,849	4,459	8,619	20,012	39,223
362	Cotton bedspreads and quilts	7,817	12,303	12,207	15,630	14,179	20,912
363	Cotton terry and other pile towels	16,900	17,615	21,997	21,212	22,686	31,110
369	Other cotton manufactures	379,854	437,396	512,004	565,932	590,031	631,681
635	Manmade-fiber coats, women/girls	9,546	11,250	10,539	11,704	13,691	11,509
636	Manmade-fiber dresses	25,801	30,825	30,684	26,237	25,031	28,877
638	Manmade knit shirts, men/boys	2,080	3,928	5,934	7,680	11,304	13,061
639	Manmade knit shirts, women/girls	3,772	4,132	4,805	5,483	4,213	4,574

See footnote at end of table.

Table F-6—Continued

Textiles and apparel: U.S. general imports from India, by specified product categories,¹ 1997-2002

Cat.		1997	1998	1999	2000	2001	2002
No.	Description	—————1,000 square meters equivalent—————					
640	Manmade not knit shirts, men/boys	486	1,262	2,020	4,377	4,041	7,500
641	Manmade-fiber not knit blouses	15,443	16,523	18,471	18,620	15,446	22,913
642	Manmade-fiber skirts	11,752	11,971	11,680	12,447	8,391	7,433
647	Manmade-fiber trousers, men/boys	428	566	1,520	3,245	6,563	6,680
648	Manmade-fiber trousers, women/girls	5,815	6,683	7,096	8,791	7,535	6,710
659	Other manmade-fiber apparel	13,811	15,939	16,653	24,454	21,828	24,144
666	Other manmade-fiber furnishings	5,342	4,534	2,772	4,767	8,010	36,073
669	Other manmade-fiber manufactures	1,078	2,251	2,531	2,221	3,085	48,866

¹ To administer the U.S. textiles and apparel quota programs, articles are grouped under 3-digit category numbers, which cover many 10-digit statistical reporting numbers under which goods are classified for statistical purposes in the Harmonized Tariff Schedule of the United States (HTS). The 1-digit and 2-digit numbers represent specific levels of import aggregation for articles covered by the quota program (e.g., the number "1" represents total imports of apparel, while "31" represents total imports of cotton apparel).

Source: Compiled from official statistics of the U.S. Department of Commerce, found at <http://otexa.ita.doc.gov>.

Pakistan¹

Overview

Pakistan is a major global producer and exporter of textiles and apparel. Pakistan's textile industry is the backbone of the economy, contributing 60 percent of export value and 46 percent of total manufacturing income. In 2000, the textile industry employed approximately 217,000 persons,² and the apparel industry employed 700,000 persons. Overall gross domestic product (GDP) for Pakistan grew 3.6 percent in 2002, with a 1.4-percent growth in agriculture, 4.4-percent in manufacturing, and 5.1-percent in services. The key to growth in manufacturing was the textiles and apparel sector, which benefited from low interest rates and increased access to Western markets.³

Historically, Pakistan produced only cotton textiles and apparel because the agricultural economy grew sizable amounts of cotton for both domestic use and export. Over the last few years, changing global demand toward apparel made from cotton blends has forced Pakistan's textile industry to shift its product mix to include synthetic yarns, fabrics, and apparel. Although synthetic fibers have taken a 58 percent share of global fiber consumption, only about 30 percent of Pakistan's fiber consumption is synthetics. The growth of the polyester filament yarn industry in Pakistan has been blunted by a government excise tax of 15 percent ad valorem instituted in 1999 on polyester chips, a primary input. However, Pakistani textile firms continue to face pressure to diversify away from cotton as a fiber input because the domestic cotton crop was plagued by the leaf curl virus throughout the 1990s, affecting both quality and yields.

The future of Pakistan's textile and clothing exports remains uncertain after the expiration of global textile quotas. Spinning capacity expanded throughout the 1990s, but mismanagement has made many of the mills unprofitable. Yarn production consists mainly of lower value coarse and medium counts due to outdated machinery, and roughly 70 percent of production is still cotton yarn, rather than higher-value cotton blends or synthetic yarn.

Although cotton fabric is also made by large, organized mills, Pakistan's weaving sector is dominated by small, family-owned power-loom weavers who produce poor quality fabrics at very low productivity levels. The cottage or nonmill sector produces roughly 90 percent of Pakistan's output, mostly grey fabric. Pakistani fine thread-count cotton fabric is often of high quality, and the plants making this fabric are state-of-the-art facilities. However, some U.S. retailers refuse to purchase from private mills not funded by World Bank loans, fearing

¹ Prepared by John T. Fry, Office of Industries.

² The number of workers is listed as "full-time equivalents," so the actual number of workers may be higher if some work part time only. International Textile Manufacturers Federation (ITMF), *Country Statements 2001*, table 2.2, p. 36. Other sources indicate that Pakistan's employment in the textiles and apparel sector totals approximately 1.4 million.

³ Embassy of the Islamic Republic of Pakistan, Washington, DC, found at <http://www.pakistan-embassy.com>, retrieved Feb. 14, 2003.

that financing has come from drug-money profits.⁴ *** Since the terrorist attacks of Sept. 11, 2001, some Western buyers, and particularly Americans, have been reluctant to source textiles and apparel from Pakistan because of concerns for their personal safety while testing products before shipment. To encourage sales, Pakistani firms are setting up show rooms in Dubai and other areas in the region.

The success story in the Pakistani textile industry remains cotton towel and bed linen production. Approximately 6,500 towel looms operate in Pakistan, with an increase in the value of exports to all markets of more than 300 percent since 1993. Pakistani firms produce a wide variety of bed linens, including flat and fitted sheets, pillow covers, quilt covers, and duvets. Those firms are large, integrated units that continue to upgrade capacity with new machines when needed. They tend to face less competition in foreign markets than companies that produce for other textile and apparel sectors.

Industry Profile

Industry structure and performance

Textiles

Pakistan has the third-largest installed capacity of short-staple spindles for spun yarn in the world, after China and India. In 2000, Pakistani firms possessed 8.6 million short-staple spindles, or 5 percent of global capacity (table F-7). Local production of cotton yarn⁵ in 2000 totaled 1.3 million mt, up from 1.2 million mt in 1999; cotton-blend yarn (51-84 percent cotton fiber) production totaled more than 305,000 mt, down from 418,000 mt in 1999.⁶ Currently, only 18 percent of Pakistan's spindle utilization is devoted to manmade fiber production.⁷ The Pakistani Government would like to expand that percentage to 40 percent to satisfy more of the global demand for synthetic and cotton-blend yarns.⁸ Furthermore, seventy percent of Pakistan's cotton yarn production is coarse and medium counts, and the local industry is unable to fully compete for the increased demand in higher value-added finer-count yarns.⁹ Therefore, while the global export market for all yarn (cotton, blends and synthetics) is growing, Pakistan is losing market share.¹⁰

⁴ Information in the remainder of this paragraph is from industry sources, interview by USITC staff, Hong Kong, Feb. 25, 2003.

⁵ Cotton yarn is defined here as 85 percent or more cotton fiber.

⁶ ITMF, *Country Statements 2001*, table 3.2, p. 40.

⁷ Embassy of the Islamic Republic of Pakistan, Washington DC, data found at <http://www.pakistan-embassy.com> and <http://www.smeda.org.pk>, retrieved Feb. 14, 2003.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

Blended yarn production in Pakistan consists of two main segments: polyester/cotton (PC) and polyester/viscose (PV). Approximately 70 percent of local production is PC yarn, and most of the rest is PV yarn. Because the polyester industry in Pakistan has expanded since 1995, and polyester staple fiber is in greater supply, PC yarn production has grown to 18 percent of total Pakistani yarn production in 1999.¹¹ Viscose fiber, however, is almost entirely imported, and PV yarn production has grown at a much smaller rate, to 7.5 percent of yarn production in 1999.

The knitwear industry in Pakistan has expanded in recent years, containing roughly 600 units with about 10,000 knitting machines working at 60 percent capacity utilization. Nearly 200 units are major, integrated composite mills with knitting, dyeing, and sewing processes. Many mills have installed imported soft-flow dyeing machines and tension-free dryers. The total added value of this subsector is small compared with the total textile and apparel sector in Pakistan. Because knitting is primarily mechanized, Pakistani knitting operations provide direct employment to only about 20,000 people.¹²

Textile made-ups can be divided into six categories: towels and cleaning cloths; bed wear and linen; blankets; curtains and furnishings; canvas products; and table linen. According to Pakistan's Federal Bureau of Statistics, Pakistani exports of textile made-ups to all countries in 2000 totaled \$1.3 billion.¹³ Bed wear and bed linens, which include bed sheets, pillow covers, and quilts, is an important subsector for the Pakistani textile industry. Most of Pakistan's bed wear and bed linen production is provided by the informal manufacturing sector in which small manufacturers cut, stitch, and package apparel but purchase the fabric and/or contract for other processing services.¹⁴ The higher-quality market segments are supplied by vertically integrated units which closely monitor product quality.¹⁵

Pakistan is an extremely competitive global competitor in the bed wear and linen subsector, running a close second to China in export value, and Pakistan production has doubled in value since 1996, according to data of the Small and Medium Enterprise Development Authority, Government of Pakistan, as shown in the following tabulation (in million of dollars):

Year	Value
1996	376
1997	469
1998	487
1999	567
2000	681
2001	753

¹¹ Ibid.

¹² Noor Ahmed Memon, "Development of Knitwear Industry in Pakistan," *Pakistan Textile Journal*, Jan. 2002, pp. 1-6, found at <http://www.ptj.com.pk>, retrieved Dec. 26, 2002.

¹³ Small and Medium Enterprise Development Authority, Government of Pakistan, *Bed-wear & Linen: Sector Brief*, July 12, 2002, found at <http://www.smeda.org.pk>, retrieved Dec. 15, 2002.

¹⁴ Ibid.

¹⁵ Ibid.

Pakistan's global market share jumped from 13.7 percent of the bed wear and linen market in 1995 to 21 percent in 1999.¹⁶ Most bed wear and linens are made from low-density fabrics of wider widths, easily made on power looms,¹⁷ and the cost of low-density fabric is low compared to other fabrics that could also be used for the production of garments. In addition, fabric for bed wear is printed rather than dyed, and printing reportedly is both a cheaper process compared to dyeing and far easier to control quality.¹⁸

EU imports of bed linen from Pakistan, under the EU's category 9 quota, totaled 42,844 mt in 2001. Pakistan was by far the largest supplier to the EU market, with India second (16,070 mt). In light of increased EU market access for Pakistani goods under category 9 and the removal of import duties on those goods in the wake of the September 11 attacks, Pakistani shipments of bed linens to the EU are expected to be significantly higher when full year 2002 data are released.¹⁹

Apparel

The number of production units in the Pakistani apparel industry during 2001 is estimated to be 4,500, and the majority of the units are located in Karachi and Lahore. Roughly 80 percent is part of the cottage industry, with small production lines often found in workers' homes. The remainder are larger industrial units utilizing economies of scale. The knit garments sector tends to use integrated manufacturing facilities that produce fabric and stitch it into garments, whereas the woven sector continues to use nonintegrated stitching units due to the heavy investments required in the weaving and processing industries.²⁰

Total installed capacity during 2000 was estimated at 650,000 machines, with 200,000 serving the industrial sewing market and the remainder classified as domestic sewing machines used by cottage industry units. The Pakistani apparel industry employs approximately 700,000 people, due to the labor-intensive nature of sewing. Production totaled 685 million pieces in 2000,²¹ according to data of the Small and Medium Enterprise

¹⁶ Ibid. About 70 percent of the total export value of Pakistani bed wear and linen is nonknit cotton bed linen.

¹⁷ Power looms are handlooms. Industry sources interview by USITC staff, New York, NY, Mar. 12, 2003.

¹⁸ Small and Medium Enterprise Development Authority, *Bed-wear & Linen*.

¹⁹ Pakistani officials voluntarily imposed minimum export prices on bed linen shipments to the EU in Apr. 2002 after the EU reimposed antidumping duties on similar products from India. See "EU slaps duties on Indian bed linen," Apr. 26, 2002, found at <http://www.emergingtextiles.com>, retrieved Nov. 8, 2002.

²⁰ Small and Medium Enterprise Development Authority, Government of Pakistan, *Apparel: Sector Brief*, July 12, 2002, found at <http://www.smeda.org.pk>, retrieved Dec. 15, 2002.

²¹ Ibid.

Development Authority, Government of Pakistan, as shown in the following tabulation (in millions of pieces):²²

Year	Pieces
1996	650
1997	665
1998	670
1999	(¹)
2000	685
2001	753

¹ Not available.

Factors of production

Raw materials

Total fiber consumption was estimated to be more than 2.3 million mt in 2001, up from 2.0 million mt in 1997 (table F-7). In 2001, cotton fiber usage totaled 1.6 million mt; the remainder was synthetic fiber. The availability of domestic cotton fibers, estimated at 1.8 million mt during August 2001-July 2002, has been an important factor in the development of the cotton textile sector. Pakistan is the fourth-largest producer of cotton in the world after China, the United States, and India.²³ Pakistani cotton growers have been struggling since 1992 against leaf roll (also called leaf curl) disease, which has caused production losses of 1.3 million mt and an estimated \$5 billion in lost sales over the last 10 years. As leaf roll disease has been contained, Pakistani cotton production has risen 1.7 million mt per year over the last three growing seasons. However, a new variant of leafroll disease has recently been discovered in Pakistan, to which existing cotton plants are still susceptible.²⁴

The cotton-ginning industry in Pakistan has quality and efficiency problems that affect the final cotton goods. Much of the sector is operated by second-generation mechanics (*mistris*) that have learned the business through trial and error and years of experience. But Pakistani ginning technology is obsolete, with machines only one-fifth as productive as machines in developed countries.²⁵ In addition, different ginning mills have their own standards, affecting the overall uniformity of cotton lint produced.

²² Ibid.

²³ U.S. Department of Agriculture, Foreign Agricultural Service, *Cotton: World Markets and Trade*, Dec. 2002, table 1.

²⁴ "Pakistani Cotton Attacked by a New kind of Virus," *ITS Newsletter* No. 20, Oct. 22, 2002, p. 4.

²⁵ Energy usage is higher than it should be, moisture is improperly controlled (causing fiber damage), and saw gins are past their useful lives, with varying tooth angles on the saws and an insufficient number of saws in the gin stand to meeting international efficiency standards.

The Pakistani Government is promoting improvements to the cotton ginning sector by encouraging uniform standards and making ginners aware of technological advances.²⁶

Pakistani textile firms are attempting to satisfy the increasing global market demand for noncotton fabrics by converting some of its cotton yarn production into blended-cotton yarn. European consumers in particular want blended fabrics because of their durability and lower retail prices. Local Pakistani companies are aggressively using new technologies to meet that demand. Official Pakistani figures indicate that Pakistani textile plants consumed 400 million mt of synthetic fibers in yarn production during 2001, accounting for 30 percent of Pakistan's fiber consumption.²⁷ Synthetic fiber consumption is estimated to top 40 percent of total Pakistani fiber consumption in 2002.²⁸ In addition, Pakistani companies have begun purchasing more high-quality cotton, such as U.S. Pima and Acala varieties, to create better cotton yarns and fabrics.²⁹ U.S. exports of long-staple cotton to Pakistan rose from 3,700 mt in 1999 to 15,253 mt in 2001.³⁰

The growth of the polyester filament yarn industry has been blunted by a government excise tax of 15 percent ad valorem in 1999 on polyester chips, a primary input. Although the removal of tariffs on polyester fiber offset this tax somewhat, the overall impact of these government policies on the production of downstream polyester goods has been to raise the cost of polyester filament yarn.³¹

²⁶ "Pakistan: Ginning Industry: Need for Modernization," Oct. 11, 2002, pp. 1-3, found at <http://www.texwatch.com>, retrieved Nov. 6, 2002.

²⁷ Official data indicating an increased use of synthetics may be misleading because synthetic fiber consumption appears to have increased as a percentage of total consumption in 2001 only because cotton fiber usage declined rapidly after Sept. 11, 2001.

²⁸ "Pakistan: Synthetic Fibre Consumption to Hit Record Levels," Nov. 13, 2001, p. 1, found at <http://www.just-style.com>, retrieved Nov. 13, 2001. Currently about 58 percent of global fiber consumption is synthetic fibers.

²⁹ "Pakistan Shifts to Quality Cotton Textiles," *World Textile News*, June 4, 2001, found at <http://www.emergingtextiles.com>, retrieved June 8, 2001.

³⁰ U.S. Department of Commerce data.

³¹ Polyester fiber manufacturers in Pakistan are protected against imports of manmade fibers under a so-called sovereign guarantee, for 10 years, meaning that the Pakistani Government will not withdraw or reduce the current 15-percent *ad valorem* import tariff during that time. Abdul Razzak Dawood, Minister of Commerce, has said that the Pakistani Government will stand by this commitment. The sovereign guarantee was secured by ICI Pakistan Ltd., which built a polyester fiber facility in Sheikhpura at a cost of \$490 million. ICI claims it could have saved approximately \$80 million if they had built the same facility in Korea. See "Sovereign Protection," *Textile Asia*, May 2002, p. 73.

Labor

The textile and apparel sector in Pakistan provides employment to more than 1.4 million people, or roughly 40 percent of the employment in the manufacturing sector.³² The apparel industry employs approximately 700,000 people.³³

Pakistani labor costs for textile production are among the lowest in the world. Pakistani labor costs for spinning and weaving for 2000, which include medical insurance and any fringe benefits such as meals and child care, were \$0.37 per hour.³⁴ In 2002, those social costs declined to \$0.34 per hour.³⁵ (table F-7). Of the major countries with spinning and weaving operations, only Indonesia has lower costs than Pakistan.³⁶

Investment

Private and foreign government investment

In May 2002, the All Pakistan Textile Mills Association (APTMA) announced that it expects investment in Pakistan's textile industry will likely total \$500 million in 2002, which follows investments of \$485 million in 2001, primarily in the spinning and weaving subsectors. Much of the investment for 2002 is for value-added sectors outside Pakistan's traditional spinning and weaving operations.³⁷ Pakistani textile firms are also purchasing textile equipment such as ring frames from Chinese equipment manufacturers.³⁸

The Export-Import Bank of China has extended a \$200 million line of credit for financing equipment replacement in and the modernization and capacity expansion of Pakistan's textile industry. The line of credit is designed to encourage exports of value-added textile items to the United States, taking advantage of Pakistan's abundant supply of cotton yarn and grey fabrics.³⁹

In January 2002, the Chinese Government offered Pakistan \$25 million for investment in

³² Not all of the workers are employed full-time. Estimates from other sources put the full-time equivalent work force in textiles and apparel at just over 900,000. Pakistan's textile sector--a future in the balance: Part 3," Jan. 15, 2001, pp. 1-11, found at <http://www.just-style.com>, retrieved Dec. 3, 2002.

³³ Small and Medium Enterprise Development Authority, *Apparel: Sector Brief*.

³⁴ Werner International Management Consultants, *International Wage Survey*, Year 2000, faxed from Werner infortex, Nov. 2, 2001.

³⁵ Werner International Management Consultants, "Spinning and Weaving Labor Cost Comparisons, 2002," Reston, VA.

³⁶ For comparison, China's social costs were \$0.69 per hour and India's were \$0.57 per hour in 2002. See Werner International Management Consultants, "Spinning and Weaving Labor Cost Companies, 2002."

³⁷ "Pakistan: Textile Investment Set to Top \$500m," May 23, 2002, p. 1, found at <http://www.just-style.com>, retrieved May 23, 2002.

³⁸ Shahid Iqbal, "Textile Sector Faces Tough Competition in World Market," *Business Recorder*, Dec. 14, 2002, found at <http://www.businessrecorder.com>, retrieved Dec. 30, 2002.

³⁹ "Pak-China Joint Ventures in Textiles," *Pakistan Textile Journal*, Jan. 2002, pp. 1-2, found at <http://www.ptj.com.pk>, retrieved Dec. 26, 2002.

joint ventures, which included two units to produce printed and embroidered silk garments. In addition, China is planning to set up an industrial park in Pakistan that would print silk cloth and convert it into garments for re-export. Pakistan has allocated land in Karachi for this purpose.⁴⁰

Government Policies

Inefficient cotton ginning negatively impacts the cost and quality of Pakistani exports of fabric and apparel. The Pakistani government's Small and Medium Enterprise Development Authority is creating programs to develop the ginning sector through standards implementation, gin saws upgrades, pneumatic control systems installation, and incentives for ginners to modernize their facilities.⁴¹

A recent Pakistani Government analysis identified two weak links in the Pakistani industry: ginning and power looms. Power-loom technology currently in place is often from the 1940s and 1950s and has become obsolete, producing 48-inch fabric when present demand is for fabric widths of 92 inches.⁴² To encourage machinery upgrades, the Pakistani Government created a program (under Textile Vision 2005) to upgrade the technology used in a large portion of Pakistan's weaving sector. The program is designed to give loans to textile firms in Faisalabad to upgrade from power looms to auto looms.⁴³ The final stage began in December 2002. Faisalabad was chosen for this program because 125,000 of the 225,000 power and auto looms in the country are in that region.

⁴⁰ Ibid.

⁴¹ "Pakistan: Ginning Industry: Need for Modernization," Oct. 11, 2002, pp. 1-3, found at <http://www.texwatch.com>, retrieved Nov. 6, 2002.

⁴² Low quality of output, low productivity, and low unit value are the major issues of the power-loom sector today, and the discussion in the industry has been whether to switch to shuttleless looms or auto looms. Second-hand air-jet or shuttleless looms cost Rs 800,000 but second-hand auto looms cost only Rs 125,000. Some Pakistani textile owners believe that product quality differences between the two machinery types are minimal and that only significant productivity gains from shuttleless looms could justify the additional cost. "Pakistan: Power Looms Up-Gradation Project Enters Final Stage," Nov. 29, 2002, p. 1, found at <http://www.texwatch.com>, retrieved Dec. 12, 2002.

⁴³ Auto looms are power looms (hand looms) which have been equipped with an auto cop changer. Basic power looms (without the auto cop changer) have shorter widths than auto looms and do not meet international specifications for woven fabric. In addition, power looms tend to produce lower-quality fabrics at a lower productivity level than auto looms. See Small and Medium Enterprise Development Authority, Government of Pakistan, *Pre-Feasibility Study: Fabric Weaving Unit (Auto Looms)*, June 2002, found at <http://www.smeda.org.pk>, retrieved Feb. 14, 2003.

Domestic policies

In August 2000, President Pervez Musharraf announced the Textile Vision 2005 program, which was intended to increase textile exports to \$13 billion annually through a planned development and investment strategy. Of the total Pakistani Government investment of Rs 333 billion (\$5.5 billion) earmarked for projects prior to 2005, Rs 87 billion (\$1.5 billion) will be spent for spindles, Rs 62 billion (\$1.0 billion) for processing and weaving, Rs 39 billion (\$650 million) for stitching machines, Rs 40 billion (\$670 million) for water jet and air jet looms, Rs 29 billion (\$480 million) for knitting, Rs 29 billion (\$480 million) for polyester fiber, and Rs 7 billion (\$120 million) for knit-processing.⁴⁴

The Pakistani Government has implemented the Textile Vision 2005 strategy through the establishment of a textile management fund to remodel the textile industry and stimulate textile exports. A banking consortium operates the fund and disburses loans for the development of value-added textile businesses. APTMA, the primary association of Pakistani mills, is concerned that future loans will be given for so-called value-added projects to the detriment of traditional spinning and weaving operations. But the finance ministry has said that the investment strategy will be based on the principle of “parallelism,” meaning that the Pakistani Government would like to build domestic capacity in value-added textile processing while recognizing that older industries also require financial and technical upgrading to compete globally. The State Bank of Pakistan has indicated that credit will be extended on merit, with better credit risks being given better rates. Recent government analysis estimates that the Pakistani textile industry will need at least Rs 24 billion (\$400 million) in loans and Rs 16 billion (\$270 million) in equity for balancing, modernization, and replacement needs. In addition, the Trading Corporation of Pakistan (TCP) was given the role of stabilizing cotton prices and ensuring a fair return for growers. TCP is now the buyer of last resort when domestic prices fall below a fixed minimum.⁴⁵

Pakistan is also establishing productivity standards for its spinning sector. Eleven spinning factories have volunteered for the first phase of the trials, intended to study Pakistan’s production capacity and set standards at par with the textile sector of Europe. Initially, Pakistani products will be compared with those of India and Thailand, and a productivity study focusing on ways to improve productivity per spindle will be prepared. Notably, in the last few years, \$400 million has been spent replacing Pakistani spinning machinery and another \$500 million has yet to be spent.⁴⁶

The private sector is also beginning to focus on modernization and developing industry standards. In December 2002, the Pakistani Towel Manufacturers Association (TMA) urged the Pakistani Government to set up a special section of the Labour Ministry to advise factory

⁴⁴ “Pakistan: Textile Industry’s Investment Strategy,” Sept. 9, 2002, pp. 1-3, found at <http://www.texwatch.com>, retrieved Nov. 15, 2002.

⁴⁵ Ayub Mehar, “Financing Expansion,” *Textile Asia*, July 2000, p. 82.

⁴⁶ “Pakistan: Spinning Sector Productivity Standards to Be Set Up,” Aug. 28, 2002, p. 1, found at <http://www.texwatch.com>, retrieved Nov. 6, 2002.

owners on how they can comply with new regulations on labor and safety standards imposed by U.S. retailers.⁴⁷

Trade policies

Pakistan

Pakistan has traditionally imported very few textile products, primarily because of government policies banning the importation of textiles that competed with domestic production in local markets. In February 2000, however, the Pakistani Government removed 14 textile made-ups from its “negative import list,” a compilation of foreign goods prohibited from importation. The items included woven fabrics, carpets, curtains, apparel, clothing, and bed linen. Pakistan continued to ban the importation of many other textile goods at that time, even in light of its WTO commitments to open its textile regime.⁴⁸ By November 2002, the Pakistani Government had removed all textile products from its negative import list and also reached an agreement with the WTO Balance of Payments Committee to phase out quantitative restrictions on all textile imports.⁴⁹

In August 2000, under the Textile Vision 2005 program, the Pakistani Government eliminated the 15 percent *ad valorem* import duty on cotton and allowed duty-free import of machinery for production of export-oriented products through June 30, 2001.⁵⁰ The Pakistani Government also removed the import duty on cotton to ease a shortage caused by past government practice of buying cotton to halt domestic price declines and then selling the stocks abroad in exchange for hard currency.⁵¹

United States

In the aftermath of the September 11 attacks, export demand for Pakistani textiles and apparel reportedly fell sharply as customers in the United States and elsewhere cancelled orders because of the heightened risk of doing business in Pakistan.⁵² Both the United States and the EU later negotiated with Pakistan to provide additional preferential market access for certain Pakistani textiles and apparel exports into the two markets.

⁴⁷ Muzaffar Qureshi, “U.S. Stores Ask Pak Textile Exporters to Get Their Factories Certified,” *Business Recorder*, Dec. 13, 2002, found at <http://www.businessrecorder.com>, retrieved Dec. 30, 2002.

⁴⁸ “Textile Made-Ups Removed from Negative Import List,” *Business Recorder*, Feb. 7, 2000, reprinted in U.S. Department of State telegram 792, “Pakistan: Economic Highlights in the Press,” prepared by the U.S. Embassy, Islamabad, Mar. 10, 2000.

⁴⁹ Office of the United States Trade Representative, *2002 National Trade Estimates Report on Foreign Trade Barriers*, Pakistan Country Writeup, Apr. 2002, p. 2.

⁵⁰ Ayub Mehar, “Financing Expansion,” *Textile Asia*, July 2000, p. 82.

⁵¹ *Pacific Trade Winds*, July 2000, p. 4.

⁵² USITC, *The Year in Trade 2001: Operation of the Trade Agreements Program*, 53rd Report, USITC publication 3510, May 2002, p. 5-29.

The United States increased import quotas in February 2002 for certain Pakistani apparel goods by 15 percent over 2002 base levels and by a “special swing” of 25 percent for the 2002-2004 period, in addition to the swing in the original bilateral agreement on quotas.⁵³ The apparel goods affected included cotton and manmade fiber woven gloves, men’s and boys’ other coats, women’s and girls’ coats, women’s and girls’ woven blouses, and pajamas and other nightwear, manmade fiber knit shirts and blouses, and manmade fiber trousers.⁵⁴

The United States also provided a “special swing” to the following Pakistani products for 2002-2004: 8 percent for men’s and boys’ cotton knit shirts, women’s and girls’ cotton knit blouses, and cotton trousers; and 25 percent for manmade fiber men’s and boys’ woven shirts and underwear.⁵⁵

U.S. retailers are requesting that textile exporters in Pakistan get their factories certified by U.S. agencies regarding labor standards and worker health and fire safety. These retailers are threatening to stop purchasing from companies which fail to uphold basic labor and safety standards. Wal-Mart in particular reportedly has presented local Pakistani firms with factory certification suppliers’ manuals, which contain contact information for U.S. inspection agencies.⁵⁶

European Union

In October 2001, the EU signed a Memorandum of Understanding (MOU) with Pakistan, which granted the following additional EU market access to Pakistani textiles and apparel:

- Removal of all tariffs on apparel (currently averaging 8 percent *ad valorem*) and increased quotas on imports of Pakistani textiles and apparel by 15 percent;⁵⁷ and
- Extension of duty-free treatment to apparel and certain articles from Pakistan under special provisions of its new Generalized System of Preferences (GSP) scheme, aimed at providing increased market access to those countries taking aggressive measures to wipe out illegal drug production and trafficking.⁵⁸

⁵³ “Swing” is a shift of unused quota from one category to another.

⁵⁴ *Apparel Benefits for Pakistan*, Fax from DOC, OTEXA, Feb. 26, 2002.

⁵⁵ The special swings granted by the United States can only be taken from textile (nonapparel) quota categories, as listed in the U.S.-Pakistan bilateral agreement. *Apparel Benefits for Pakistan*, Fax from U.S. Department of Commerce, OTEXA, Feb. 26, 2002.

⁵⁶ Muzaffar Qureshi, “U.S. Stores Ask Pak Textile Exporters to Get Their Factories Certified.”

⁵⁷ The EU Commission estimates that the additional textile and apparel quota access will be worth € 1 billion between Oct. 2001 and the end of 2004. See *European Commission proposes comprehensive preferential trade package for Pakistan*, Oct. 16, 2001, found at <http://www.europa.eu.int>, retrieved Dec. 28, 2001.

⁵⁸ The textile articles imported into the EU from Pakistan that are eligible for the duty-free treatment include those provided for in HTS ch. 63, “other made-up textile articles” (e.g., home textiles such as towels, sheets and pillowcases, and curtains).

In return for increased market access, Pakistan was required to lower import tariffs on EU textiles and clothing.⁵⁹

Foreign Trade

Pakistan had a fluctuating trade surplus during 1997-2001 which increased overall by 3 percent to \$6.6 billion (table F-7). Pakistan's exports of textiles and apparel, which rose by 4 percent to \$6.7 billion, far outstripped its textile and apparel imports which increased by 82 percent to \$159 million. The United States and the European Union were Pakistan's leading trading partners throughout the 1997-2001 period.

Imports

Although Pakistan produces much of the cotton and synthetic fiber local firms consume producing textiles and apparel, local firms depend on the United States for much of the supply of extra-long-staple (ELS) and Acala cottons used in high-end cotton and cotton-blend fabrics. As a result, the United States is the primary supplier of fiber, valued at \$33.7 million in 2000, or 39 percent of the total value of fiber imports to the Pakistani market. Other major fiber suppliers include Australia (cotton) and Korea (synthetics).⁶⁰

Pakistani textile and apparel imports in 2001 totaled \$159.4 million, increasing from \$87.7 million in 1997, or by 82 percent over the period (F-7). More than 90 percent of Pakistani imports are textile inputs for the local textile and apparel production rather than apparel for consumers.

Exports

Global apparel trade has grown significantly faster than trade in textiles since the mid-1980s (trade in clothing totaled \$199 billion in 2001, with textiles at \$144 billion). However, Pakistani trade runs counter to this trend; local firms continue to export significantly more textiles than apparel. The United States and the EU are the two largest export markets for Pakistan's textile and apparel products (table F-8).⁶¹ U.S. imports of textiles and apparel from Pakistan rose by 125 percent during 1997-2002 to 2.5 billion square meter equivalents (SMEs) (table F-9).⁶² The single largest category of U.S. imports of Pakistani textiles and apparel, with nearly 27 percent of the volume total, is other cotton manufactures (369),

⁵⁹ *European Commission Proposes Comprehensive Preferential Trade Package for Pakistan*, Oct. 16, 2001, found at <http://www.europa.eu.int>, retrieved Dec. 28, 2001.

⁶⁰ United Nations data found at www.un.org.

⁶¹ Textiles and apparel constitute three-fourths of Pakistan exports to the EU.

⁶² In 2001, Pakistan was the fourth-largest source of U.S. imports of textiles and apparel (6.7 percent of the total volume).

which includes toilet and kitchen linen, cotton terry fabric bar mops, and cotton dust mops.⁶³ Pakistan faced trade-weighted import duties into the United States averaging 7.8 percent ad valorem for textiles and 15.8 percent ad valorem for apparel in 2001.⁶⁴ The United States maintains a variety of quotas on imports of Pakistani textiles and apparel goods. During the 2002 quota year, Pakistan filled or substantially filled its U.S. quotas for several categories, primarily in cotton fabrics, cotton apparel and towel and bed linen products.⁶⁵

The EU maintains 14 import quotas on Pakistani textiles and apparel, including cotton yarn, cotton fabrics, synthetic fabrics, T-shirts, pullovers, blouses, shirts, towels, singlets and vests, bed linen, trousers (categories 6 and 28) and table linen. Pakistan filled its 2002 EU quotas for men's and boys' woven bottoms (category 6) and bed linen (category 20), and substantially filled their EU quotas for cotton yarn (category 1) and cotton towels and table linen (category 9).

Pakistan supplies large quantities of grey cotton cloth to China because Chinese-produced grey cloth was traditionally of inconsistent quality. This trade may be in jeopardy as Chinese firms upgrade machinery and concentrate on that part of the value chain.⁶⁶

Textiles

Pakistani textile exports to all markets totaled \$4.4 billion in 2001, down slightly from \$4.5 billion in 1997 (table F-8). The total value of Pakistani textile exports to the EU, Canada, and United States increased from \$1.9 billion to \$2.1 billion during 1997-2001. In two of Pakistan's other large markets, United Arab Emirates and Korea, textile exports rose during 1997-2001.⁶⁷ However, exports to Hong Kong declined 37 percent during the same period, reflecting a decline in Hong Kong's textile and apparel sector.⁶⁸

Markets in the United States and the EU imported roughly 46 percent of Pakistan's exports of textiles in 2001, up from 40 percent in 1997. These gains came entirely from increased

⁶³ Because Pakistani firms produce low value-added products, particularly in cotton apparel and grey cloth, Pakistan was only the 15th-largest source of U.S. imports of textiles and apparel by value in 2001, with 2.7 percent of the total value, but the fourth-largest source of U.S. imports by volume. *The Year in Trade 2001: Operation of the Trade Agreements Program, 53rd Report*, USITC publication 3510, May 2002, p. 5-29.

⁶⁴ Data compiled by USITC staff.

⁶⁵ "Substantially filled" are fill rates over 90 percent. The U.S. import quotas on Pakistani textiles and apparel filled or substantially filled in 2001 were cotton or MMF cheesecloth (226/313), cotton poplin and broadcloth fabric (314), cotton printcloth fabric (315), cotton and MMF gloves and mittens (331), other men's and boys' cotton and MMF coats (334/634), cotton men's and boys' knit shirts (338), cotton women's and girls' knit shirts/blouses (339), cotton trousers slacks and shorts (347/348), cotton and MMF nightwear and pajamas (351/651), cotton and MMF underwear (352/652), cotton pillowcases (360), cotton sheets (361), cotton terry & other pile towels (363), other cotton manufacturers (369-F/369-P), shop towels (369-S), MMF printcloth fabric (615), MMF trousers slacks and shorts (647/648), pillowcases except bolsters (666-P), and MMF sheets (666-S).

⁶⁶ Industry sources, interview by USITC staff, Hong Kong, Feb. 25, 2003.

⁶⁷ Data from the United Nations compiled by USITC staff.

⁶⁸ *Ibid.*

imports into the United States. While U.S. imports of Pakistani textiles rose from \$600 million in 1997 to \$925 million in 2001, EU imports declined from \$1.2 billion in 1997 to \$1.1 billion in 2001.⁶⁹

Apparel

Pakistani apparel exports in 2001 totaled \$2.4 billion, increasing from \$2.0 billion in 1997 (table F-8). Roughly half of the value were woven and knit men's and boys' wear. The value of Pakistan's apparel exports rose 18 percent during 1997-2001, but Pakistan's share of global trade in apparel still remains less than 1 percent.⁷⁰ Increases in Pakistani apparel exports were entirely due to increased exports to the United States during 1997-2001. Markets in the United States and the EU imported 84 percent of Pakistan's exports of apparel in 2001, down slightly from 85 percent in 1997 (table-F-8).

Despite significant local and limited foreign investment in the textile and apparel sectors totaling more than \$1 billion over the last three years, Pakistani companies have not reported a sizable shift in textile exports away from cotton yarn and grey fabrics into higher value products such as ready-made garments. Total Pakistani exports rose, but much of the growth continues to be in cotton yarn and grey cloth.⁷¹ Much of the difficulty for Pakistani exports in making the transition from textile inputs such as yarn and grey cloth into finished garments appears to come from Chinese competitors who are also investing heavily to maintain their market share in finished goods.⁷²

⁶⁹ Ibid.

⁷⁰ Small and Medium Enterprise Development Authority, *Apparel: Sector Brief*.

⁷¹ Over the 5-month period from July -November 2002, cotton yarn exports increased by 7.9 percent in quantity and cotton cloth increased 19.5 percent from the same period 1 year earlier. In terms of value, cotton yarn increased by 2.5 percent and cotton cloth increased by 28.7 percent. Exports of apparel during July-November 2002 declined by 9.2 percent by volume but increased by 26.5 percent in value because of better quality and higher prices on world markets. See Shahid Iqbal, "Textile sector faces tough competition in world market," *Business Recorder*, Dec. 14, 2002, retrieved from <http://www.businessrecorder.com>, Dec. 30, 2002.

⁷² Ibid.

Table F-7
Pakistan: Statistical profile of textile and apparel sector and foreign trade, 1997-2001

Item	1997	1998	1999	2000	2001
Number of establishments:					
Textiles	1,370	(¹)	(¹)	(¹)	(¹)
Apparel	(¹)	(¹)	(¹)	(¹)	4,500
Number of workers:²					
Textiles	(¹)	(¹)	(¹)	² 217,000	(¹)
Apparel	(¹)	(¹)	(¹)	700,000	(¹)
Total	(¹)	(¹)	(¹)	917,000	(¹)
Installed spinning capacities:					
Short-staple spindles (1,000)	8,333.0	8,340.0	8,438.0	8,567.0	8,567.0
Long-staple spindles (1,000)	35.0	35.0	35.0	35.0	35.0
Open-end rotors (1,000)	144.8	147.4	146.2	149.5	149.5
Installed weaving capacities:					
Shuttleless looms (number)	³ 13,200	³ 15,000	³ 15,000	³ 16,000	³ 17,500
Shuttle looms (number)	³ 8,110	³ 7,390	³ 7,298	³ 7,200	³ 10,100
Shipments of large circular knitting machines					
	(¹)	238	186	203	148
Production index (1997=100):					
Yarn	(¹)	(¹)	(¹)	109.3	112.5
Fabric	(¹)	(¹)	(¹)	138.3	155.7
Total labor cost per operator hour					
	(¹)	(¹)	(¹)	\$0.37	⁴ \$0.34
Mill fiber consumption:					
Cotton (1,000 metric tons)	1,549.0	1,483.1	1,523.6	1,629.2	1,628.3
Wool (1,000 metric tons)	21.5	23.3	15.6	17.0	17.3
Manmade fibers (1,000 metric tons)	452.6	563.6	626.9	667.1	690.7
Total (1,000 metric tons)	2,023.1	2,070.0	2,166.1	2,313.3	2,336.3
Foreign trade:					
Exports:					
Textiles (million dollars)	4,492.0	4,172.4	4,121.4	4,380.8	4,374.5
Apparel (million dollars)	<u>2,001.4</u>	<u>2,044.7</u>	<u>2,053.8</u>	<u>2,364.5</u>	<u>2,355.5</u>
Total (million dollars)	6,493.3	6,217.1	6,175.2	6,745.2	6,730.0
Imports:					
Textiles (million dollars)	85.2	91.4	113.5	129.4	154.0
Apparel (million dollars)	<u>2.5</u>	<u>3.9</u>	<u>3.6</u>	<u>4.4</u>	<u>5.3</u>
Total (million dollars)	87.7	95.3	117.1	133.9	159.4
Trade balance:					
Textiles (million dollars)	4,406.8	4,081.0	4,007.9	4,251.3	4,220.5
Apparel (million dollars)	<u>1,998.9</u>	<u>2,040.9</u>	<u>2,050.2</u>	<u>2,360.1</u>	<u>2,350.2</u>
Total (million dollars)	6,405.6	6,121.9	6,058.1	6,611.4	6,570.6

¹ Not available.

² Full-time equivalents.

³ In addition, there were approximately 200,000 powerlooms and 80,000 handlooms in the non-mill sector.

⁴ Represents 2002 data.

Note.—Because of rounding, figures may not add to totals shown.

Source: Industry data compiled from the International Textile Manufacturers Federation (Zurich), *International Textile Machinery Shipment Statistics*, vol. 25/2002, and selected back issues; Geerdes International, Inc., Richmond, VA, facsimile to Commission staff, Feb. 4, 2003; and Werner International, Reston, VA. Trade data are United Nations data as reported by Pakistan.

Table F-8
Pakistan: Exports of textiles and apparel, by selected markets, 1997-2001

Item and market	1997	1998	1999	2000	2001
	<i>Million dollars</i>				
Textiles (SITC 65):					
Quota markets:					
United States	600	710	744	881	925
European Union	1,198	1,209	1,125	1,085	1,092
Canada	91	90	103	102	88
Subtotal	1,890	2,009	1,972	2,068	2,106
All other:					
Hong Kong	638	514	457	469	402
United Arab Emirates	203	182	202	215	246
Korea	166	101	183	203	210
Other	1,596	1,367	1,308	1,425	1,411
Subtotal	2,602	2,163	2,150	2,312	2,269
Grand total	4,492	4,172	4,121	4,381	4,375
Apparel (SITC 84):					
Quota markets:					
United States	839	938	989	1,196	1,127
European Union	868	840	826	859	853
Canada	61	60	59	70	74
Subtotal	1,768	1,838	1,874	2,124	2,055
All other	233	207	179	240	301
Grand total	2,001	2,045	2,054	2,364	2,355
Textiles and apparel:					
Quota markets:					
United States	1,439	1,647	1,733	2,077	2,053
European Union	2,067	2,049	1,951	1,944	1,946
Canada	152	151	162	172	162
Subtotal	3,658	3,847	3,846	4,193	4,160
All other	2,836	2,370	2,329	2,552	2,569
Grand total	6,493	6,217	6,175	6,745	6,730
	<i>Percent</i>				
Share of exports going to quota markets:					
Textiles	42	48	48	47	48
Apparel	88	90	91	90	87
Average	56	62	62	62	62

Note.—Because of rounding, figures may not add to totals shown.

Source: Compiled from United Nations data.

Table F-9
Textiles and apparel: U.S. general imports from Pakistan, by specified product categories,¹
1997-2002

Cat.		1997	1998	1999	2000	2001	2002
No.	Description	<i>1,000 square meters equivalent</i>					
0	Textiles and apparel, total	1,125,845	1,483,357	1,544,766	1,996,768	2,189,346	2,536,902
1	Apparel	193,656	214,783	237,014	330,206	347,009	382,080
2	Textiles	932,189	1,268,574	1,307,751	1,666,562	1,842,337	2,154,822
11	Yarns	115,118	188,342	193,136	310,879	276,988	297,516
12	Fabrics	391,484	477,049	370,498	449,745	475,592	695,948
14	Other miscellaneous articles	425,588	603,183	744,117	905,939	1,089,757	1,161,359
30	Cotton textiles and apparel	921,922	1,193,283	1,270,164	1,636,476	1,782,967	2,062,087
31	Cotton apparel	162,003	182,620	204,199	271,722	290,349	318,447
32	Cotton textiles	759,918	1,010,662	1,065,965	1,364,754	1,492,617	1,743,639
40	Wool textiles and apparel	1,399	1,340	1,416	2,046	1,748	1,663
60	Manmade-fiber textiles and apparel	202,458	288,589	272,956	357,508	403,471	471,895
61	Manmade-fiber apparel	31,309	31,943	32,657	57,304	55,450	62,756
62	Manmade-fiber textiles	171,149	256,646	240,299	300,204	348,021	409,139
80	Silk blend/veg fiber textiles/apparel	66	145	229	739	1,161	1,257
239	Babies' apparel	3,195	5,394	6,729	12,168	11,383	10,609
300	Carded cotton yarn	89,754	138,992	149,915	252,722	231,652	208,138
301	Combed cotton yarn	23,028	37,798	33,440	45,681	32,525	81,199
313	Cotton sheeting fabric	99,596	118,183	102,916	108,236	119,575	132,721
315	Cotton printcloth fabric	82,805	75,382	59,440	58,794	78,205	125,713
317	Cotton twill fabric	23,705	22,829	17,324	25,420	25,764	47,279
326	Cotton sateen fabric	6,200	24,949	27,150	57,938	42,099	68,858
332	Cotton hosiery	15	267	2,941	10,496	19,428	39,677
334	Other cotton coats, men/boys	7,186	5,162	9,208	11,991	10,871	15,338
336	Cotton dresses	14,260	19,405	9,716	14,961	15,088	20,887
338	Cotton knit shirts, men/boys	28,670	31,946	37,215	45,544	45,142	45,297
339	Cotton knit shirts, women/girls	7,355	8,011	10,750	13,052	10,133	13,578
340	Cotton not knit shirts, men/boys	14,255	10,319	15,983	15,328	11,363	12,243
347	Cotton trousers, men/boys	8,881	9,706	13,483	15,328	13,583	16,944
348	Cotton trousers, women/girls	5,091	3,786	4,209	3,584	5,162	8,258
350	Cotton robes	5,038	6,991	10,227	16,225	21,422	22,331
351	Cotton nightwear	10,557	11,478	10,613	17,531	15,439	15,945
352	Cotton underwear	5,836	7,547	5,642	10,442	11,472	10,500
359	Other cotton apparel	37,296	48,313	50,258	57,371	61,936	54,437
360	Cotton pillowcases	5,656	4,537	7,028	6,192	8,120	7,577
361	Cotton sheets	31,186	31,373	45,958	43,540	51,630	50,938
362	Cotton bedspreads and quilts	28,769	64,080	90,085	115,705	135,420	154,284
363	Cotton terry and other pile towels	18,585	21,272	21,625	23,754	29,570	26,348
369	Other cotton manufactures	276,083	381,156	444,994	539,651	640,880	679,883
613	Manmade-fiber sheeting fabric	8,038	12,478	11,916	5,412	6,448	15,839
614	Manmade-fiber poplin/broadcloth	11,023	13,239	6,883	13,632	11,029	23,101
615	Manmade-fiber printcloth fabric	21,281	24,416	25,696	26,055	39,460	35,781
625	Manmade-fiber poplin/broadcloth	28,238	46,501	16,499	26,610	28,379	54,518
626	Manmade-fiber printcloth fabric	16,624	31,159	19,379	18,787	11,691	13,911
666	Other manmade-fiber furnishings	63,945	98,802	132,483	174,564	221,064	239,213

¹ To administer the U.S. textile and apparel quota program, articles are grouped under 3-digit category numbers, which cover many 10-digit statistical item numbers under which goods are classified from statistical purposes in the Harmonized Tariff Schedule of the United States (HTS). The 1-digit and 2-digit numbers represent specific levels of import aggregation for articles covered by the quota program (e.g., the number "1" represents total imports of apparel, while "31" represents total imports of cotton apparel).

Source: Compiled from official statistics of the U.S. Department of Commerce, found at <http://otexa.ita.doc.gov>.

Sri Lanka¹

Overview

Sri Lanka's textile and apparel sector is the largest manufacturing sector in the country, accounting for 6 percent of gross domestic product (GDP), 39 percent of industrial production, 33 percent of manufacturing employment, and 61 percent of exports.² Sri Lanka, therefore, is highly dependent on the sector for both jobs and export earnings. Foreign investors reportedly own about 50 percent of the companies in Sri Lanka's apparel industry; these companies account for almost 90 percent of Sri Lanka's apparel exports. Sri Lanka enjoys quota-free and reduced-duty access to the European Union (EU) market and reduced-duty access to India's market, as well as duty-free access to large Asian markets as a South Asian Association for Regional Cooperation (SAARC) member.

Sri Lanka's competitive strengths include a highly literate labor force, low wages, strict labor standards, investment-friendly government policies, and a deep-water harbor on strategic shipping lanes. Its competitive weaknesses include long lead times for deliveries due to a lack of domestic raw materials; weak marketing; lack of product development; and low labor productivity, partly due to outdated technology. A lack of vertical integration (into yarns and fabrics) also characterizes the Sri Lankan textiles and apparel sector, as Sri Lanka has a large export-oriented apparel industry, but a small textile industry that is unable to produce the quantity and quality of yarns and fabrics required by the apparel industry. Further, a July 2001 terrorist attack, an ongoing civil war, and recent power crises due to drought are likely to discourage investment in this sector.

Industry Profile

The Sri Lankan Government strongly supports the export-oriented apparel industry, which is much larger than the textile industry and has a greater impact on the Sri Lankan economy. Fibers and yarns are imported, as are most textiles and trim that the apparel industry requires. The lack of domestically produced raw materials hampers both the textile and apparel industries, as finding reliable suppliers and managing delivery time of supplies proves difficult.

¹ Prepared by Heather Sykes, Office of Industries.

² Written statement of Sri Lanka to the Commission Feb. 5, 2002; and Hassen Saheed, "Prospects for the Textile and Apparel Industry in Sri Lanka," *Textile Outlook International*, Nov.-Dec. 2002, pp. 10-43.

Industry structure and performance

Sri Lanka's textile and apparel sector consists of about 1,000 companies (table F-10), nearly 90 percent of which are apparel manufacturers; the remainder are textile mills. Textile and apparel production increased from \$1.5 billion in 1997 to \$2.3 billion in 2001.

About 20 to 25 percent of garment employees work in factories with more than 1,000 workers, and the largest of these factories are located in free-trade zones. It is estimated that the top 25 apparel manufacturing firms in Sri Lanka are responsible for nearly one-third of total output. Small- and medium-sized firms account for 70 percent of garment factories, but only 40 percent of apparel exports.³ Sri Lanka's apparel industry has a world market share of about 1 percent.⁴ As Sri Lanka exports most of its apparel to the United States and the EU, companies from these markets have investments in Sri Lanka.

Most of Sri Lanka's textiles are produced by fewer than 10 large textile mills, out of about 100 mills in total.⁵ Aside from textiles produced by a few large firms, the quality of Sri Lankan textile products reportedly is not acceptable for export markets.⁶ Sri Lanka's apparel industry requires about 600 million meters of fabric annually, only 20 percent of which can be met by domestic producers due to Sri Lanka's outdated technology, high production costs, rising costs of energy, limited product range, and high cost of capital.⁷ Sri Lanka's fabric production, which reached more than 200 million meters during the early 1990s, has declined throughout the past decade.⁸ After the Sri Lankan Government cut tariffs on textile imports in 1997, some producers were forced to cut capacity while others closed.⁹

In contrast, the apparel industry has grown rapidly. According to one industry source, Sri Lanka's main strength in apparel is its ability to produce high-quality goods at competitive prices, combined with an industry structure that is flexible and capable of servicing leading international brands.¹⁰ As Sri Lanka is moving up-market in its product lines (away from basics), the average unit price of apparel produced in Sri Lanka has increased from just over \$2 in the 1980s to about \$6 in 2000, as value added per apparel employee rose from \$1,600 during 1990 to \$2,500 in 1998.¹¹ Although Sri Lanka is geographically distant from the countries to which it exports apparel, lead time has been reduced by 50 percent over the last decade. However, industry sources indicate that lead time must shrink further, from the

³ Most of these small- and medium-sized firms claim to be on the verge of collapse. About 250 small- and medium-sized factories are operating at 50 percent below installed capacity, while some of these factories have been closed. Dushni Weerakoon and Janaka Wijayasiri, *Textiles and Clothing Sector in Sri Lanka*, Institute of Policy Studies - Colombo, Mar. 2000, p. 48.

⁴ H. Saheed, "Strategic Approach for Export Garment Industry to Meet its Future Challenges?" *Daily News*, Aug. 7, 2001, p. 39.

⁵ These firms consist mostly of weaving operations.

⁶ H. Saheed, "Prospects for the Textile and Apparel Industry in Sri Lanka," pp.10-43.

⁷ Ibid.

⁸ "Sri Lanka's Fabric Imports Declined in First Half," found at www.emergingtextiles.com, retrieved Sept. 12, 2002.

⁹ Ibid. Two large integrated factories producing more than 15 million meters of fabric per year closed in 1997.

¹⁰ B.H.S. Jayewardene, "Promotion Plan," *Textile Asia*, Jan. 2001.

¹¹ United Nations Industrial Development Organization (UNID)), *International Yearbook of Industrial Statistics 2002*, pp. 72-73.

current 90-120 days to 30-45 days, for the industry to remain competitive.¹² Most firms in Sri Lanka do not design their own apparel, but rather import designs from the United Kingdom and the United States. In recent years, the Sri Lanka Government has encouraged vertical integration to produce textile materials for apparel, and the continued success of the apparel industry depends on attracting foreign investors to develop textile operations in the country.¹³ The Government also is encouraging the development of a fabric weaving industry that would use yarns from India.¹⁴

Factors of production

Key inputs for Sri Lanka's apparel industry are fabrics, most of which are imported, and labor, for which low productivity partially offsets low wage rates.

Raw materials

The apparel industry relies on imports for 80 percent of its fabric requirements.¹⁵ Virtually all fibers and yarns are imported, as are most textiles and trim that the apparel industry requires. The apparel industry's annual cotton requirements consist of more than 60 million kilograms of cotton fabrics and 17 million kilograms of cotton yarns.¹⁶ Manmade fibers also are imported. Fabrics enter Sri Lanka free of duty and there are no further restrictions.

Labor

The textile and apparel sector employed 450,000 people in 2001 (table F-10); most of this employment is in the apparel industry.¹⁷ Wage rates in Sri Lanka are among the lowest in Asia, but labor productivity also is low. According to Werner International, the average hourly wage for apparel production workers in Sri Lanka was \$0.48 in 2002, which was higher than in Pakistan (\$0.41), but much lower than in China (\$0.69).¹⁸

Despite having the second-highest literacy rate in Asia,¹⁹ Sri Lanka has low industrial labor productivity resulting from absenteeism, strict labor standards leading to a shorter work day

¹² H. Saheed, "Strategic Approach," p. 39.

¹³ For example, a large knitted textile factory and a zipper factory have opened during 2000-02. Ibid.

¹⁴ B.H.S. Jayewardene, "Setting Up Weaving," *Textile Asia*, June 2001.

¹⁵ H. Saheed, "Prospects For the Textile and Apparel Industry in Sri Lanka," p. 40.

¹⁶ B.H.S. Jayewardene, "India Show," *Textile Asia*, Apr. 2001.

¹⁷ This figure represents 13 percent of the total workforce. H. Saheed, "Prospects For the Textile and Apparel Industry in Sri Lanka," pp. 17, 19.

¹⁸ Data for apparel industry were compiled from Jassin-O'Rourke Group, "Global Competitiveness Report: Selling to Full Package Providers," New York, NY.

¹⁹ The World Bank Group, "Sri Lanka Country Brief," found at <http://lnweb18.worldbank.org/sar/sa.nsf/a2044>, retrieved Oct. 25, 2002.

than in countries such as India and Bangladesh, and relatively high employee turnover.²⁰ The Government is attempting to improve general industrial productivity by introducing training and related programs in factories, including textile and apparel plants. Limited use of modern technology also limits labor productivity. Many companies are now automating their inventory to streamline operations.²¹

Labor for use in the textile and apparel sector is abundant in Sri Lanka, although the supply is small compared with India. In the apparel industry, 88 percent of workers are women.²² Foreign employees in the textile and apparel sector totaled 184,000 in 2001, 68 percent of whom were female.²³

Investment

The textile and apparel sector accounted for 16 percent of foreign direct investment (FDI) in Sri Lanka in 1999.²⁴ After increasing steadily during the 1990s, FDI in the sector slowed in 2001 because of a drought, an economic downturn, a July 2001 airport terrorist attack, and the 20-year civil war.²⁵ However, equipment investment continued to increase in 2000-01, as \$70 million worth of equipment was imported into Sri Lanka in 2000 and another \$36.3 million was imported during the first half of 2001.²⁶

Sri Lanka reportedly has transparent investment laws across all economic sectors and no restrictions on the repatriation of earnings and profits. In fact, the Japan International Corp. Agency reportedly claimed that Sri Lanka has the best FDI regulatory framework in Asia.²⁷ Some local companies have complained that they face discrimination because qualifying foreign investors can benefit from a wide range of advantages not available to domestic firms.²⁸

²⁰ Sri Lanka's population is 92 percent literate. Dushni Weerakoon and Janaka Wijayasiri, *Textiles and Clothing Sector in Sri Lanka*, Institute of Policy Studies - Colombo, Mar. 2000, pp. 37-39; and U.S. Department of State telegram 671, "Sri Lanka: Good News for the U.S. Textiles Industry," prepared by U.S. Embassy, Colombo, Apr. 10, 2002.

²¹ H. Saheed, "Strategic Approach," p. 39.

²² B.H.S. Jayewardene, "Labour to Come In?" *Textile Asia*, Nov. 2000; and H. Saheed, "Prospects for the Textile and Apparel Industry in Sri Lanka," pp. 10-43.

²³ *Central Bank of Sri Lanka Annual Report 2001*.

²⁴ Data also includes leather products. See SAARC Business Information Network, found at <http://www.saarcnet.org/newsarcnet/index.htm>, retrieved Nov. 20, 2002.

²⁵ Sri Lanka's GDP has grown by 4 to 6 percent a year over the past decade, except in 2001. *Central Bank of Sri Lanka Annual Report 2001*; and U.S. Department of State telegram 1400, "Investment Climate Statement 2002: Sri Lanka," U.S. Embassy, Colombo, July 30, 2002.

²⁶ Weaving machines were mostly imported from Switzerland, Korea, and Japan; knitting machines from Germany, Japan, Singapore, and Italy; and apparel machinery from Singapore, the United Kingdom, and Japan. "Equipment Investments Increase in 2000," *Asian Textile Business*, Sept. 2001.

²⁷ SAARC Business Information Network, found at <http://www.saarcnet.org/newsarcnet/index.htm>, retrieved Nov. 20, 2002.

²⁸ U.S. Department of State telegram 1400, "Investment Climate Statement 2002: Sri Lanka."

Many foreign investors in Sri Lanka are from Hong Kong and Korea. For example, the Korean-based Kabool Group has had an integrated textile operation in Sri Lanka since 1989.²⁹ Sara Lee recently set up its Sri Lanka operations, and a large textile company in Thailand, the Nan Yang Textile Group, is expected to establish cotton textile operations in Sri Lanka. In addition, four foreign investors--Mast Industries, MAS Holdings, Phoenix Ventures, and Textured Jersey UK--have combined to build a \$25 million fabric mill in Sri Lanka with a weekly capacity of 165,000 SMEs of polyester and nylon fabrics.³⁰

Government Policies

The Sri Lankan Government has introduced policies and programs in recent years to improve the competitiveness of its apparel industry and further develop the textiles industry. As discussed below, the Government instituted a 5-year plan to help strengthen the sector, reduced tariffs on imports of textile inputs for the export-oriented apparel industry, and established separate free trade agreements with India and other countries in the region. In addition, the Government negotiated the EU removal of quotas and reduction of duties on Sri Lankan apparel imports.

Domestic policies

The Government's 5-year Vision 2005 Apparel Industry Support Program is designed to increase vertical integration in the sector, partly by encouraging the establishment of new fabric mills; improving infrastructure; reforming labor laws; and enhancing human resource management and marketing at the firm level.³¹ The Government plans to streamline sector operations by encouraging joint ventures, alliances, and mergers.³² Sri Lanka's Board of Investment (BOI) introduced proposals to provide less expensive electricity to the textile industry and partially to fund the establishment of training institutes for apparel design and marketing.³³ The Government initiated a restructuring program for textile firms affected by

²⁹ Its Sri Lankan mills reportedly have a production capacity of 14,000 tons of yarn and 48 million yards of finished fabric. B.H.S. Jayewardene, "Ten-Year Success," *Textile Asia*, Aug. 2000, p. 113; and Kabool Group, found at <http://www.kabool.co.kr/english/aboutkabool/about.htm>, retrieved Dec. 19, 2002.

³⁰ B.H.S. Jayewardene, "Investors at Work," *Textile Asia*, Mar. 2002, p. 81.

³¹ "Sri Lanka: Garment Factories Will Not Be Closed," found at www.BharatTextile.com, retrieved Nov. 28, 2001; U.S. Department of State telegram 1740, "Sri Lanka Prepares for Post-Quota World," prepared by U.S. Embassy, Colombo, Sept. 18, 2002; and B.H.S. Jayewardene, "Large-Scale Plan," *Textile Asia*, July 2000, p. 88.

³² B.H.S. Jayewardene, "Non-Competitive Requirement," *Textile Asia*, Sept. 2000.

³³ Although the BOI mainly facilitates foreign investment, domestic apparel exporters can be given the special status foreign investors receive if they employ 50 workers and export 90 percent of their production. Advantages of BOI status include duty-free import of raw materials and other project-related items, exemption from exchange control regulations, insurance coverage from any worldwide insurance company at competitive rates, and a preferential tax rate of 15 percent for 20 years. B.H.S. Jayewardene, "Playing Field Levelled," *Textile Asia*, Dec. 2001, p. 81.

the removal of tariffs on imports of apparel inputs (e.g., fabrics) in 1997.³⁴ A total of 25 textile firms have implemented restructuring projects and 73 others have received endorsements for restructuring from banks, as agreements were signed among textile firms, banks, and the Government to ensure the recovery of debts.³⁵ In another effort to help the local textile and apparel industries, the Government requires that all orders for uniforms for the schools, police, and armed forces be placed through the State Trading Textiles Corp. and allocated to provincial manufacturers that will use locally manufactured fabrics.³⁶

Trade policies

The Government reduced tariffs on imports of apparel inputs to 35 percent ad valorem in 1995 and then to zero in 1997. Although the tariff reductions were designed to help apparel producers, they introduced new competition for domestic textile producers. Consequently, many mills closed, and employment in the textile industry dropped from about 42,000 in 1995 to 10,000 in 2001. Sri Lanka has no known nontariff barriers that affect the textile and apparel sector.

Sri Lanka is a member of the SAARC,³⁷ which entered into force in December 1995 and enables Sri Lankan apparel exporters to use fabrics from other member countries, such as India or Pakistan, without losing EU benefits under the Generalized System of Preferences program.³⁸ The Indo-Lankan Free-Trade Agreement that entered into force in March 2000 enabled slightly more than 1,300 Sri Lankan export items to gain duty-free access to India's market and 2,700 items to qualify for a 50-percent duty reduction. Apparel, subject to a quota allocation of 8 million pieces per year, is on the duty reduction list.³⁹ The Pakistan-Sri Lanka Free-Trade Agreement entered into force in August 2002 with terms similar to those contained in the Indo-Lankan Free Trade Agreement. In addition, Sri Lanka's agreement with the EU reduced tariffs on textile imports from the EU to 5 percent ad valorem for fibers and yarns and 10 percent for textiles, while the EU suspended quotas on apparel imports from Sri Lanka.⁴⁰

³⁴ In 1996, the Government introduced a program to provide \$7 million in funding over 3 years to defray the interest expenses of the textile industry. "Sri Lankan Government to Assist Textile Industry," NewsEdge, Jan. 1996.

³⁵ "Restructuring Program for Textile Firms," *Asian Textile Business*, Apr. 2001, p. 79.

³⁶ B.H.S. Jayewardene, "Playing Field Levelled," *Textile Asia*, Dec. 2001, p. 81.

³⁷ SAARC member countries include Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

³⁸ "Sri Lanka: Fall in Clothing Prices Destroying Apparel Industry," found at www.BharatTextile.com, retrieved June 18, 2002.

³⁹ Of this quota, 6 million pieces must use Indian fabrics and no single export category can exceed 1.5 million pieces per year. Sri Lankan tariffs ordinarily average about 25 percent. SAARC Business Information Network, found at <http://www.saarcnet.org/newsarcnet/index.htm>, retrieved Nov. 20, 2002.

⁴⁰ This agreement came into effect on Mar. 1, 2001. "EU and Sri Lanka Sign Agreement to Open Their Textiles Markets," found at <http://europa.eu.int>, retrieved Feb. 3, 2003.

Foreign Trade

Sri Lanka expanded its trade surplus in textiles and apparel by \$544 million during 1997-2001 to \$1.8 billion (table F-10).⁴¹ The increase reflected steady growth in exports, which grew by 15 percent, and a 17 percent decline in imports. Textiles and apparel are Sri Lanka's principal export, accounting for about 50 percent of its total merchandise exports in 2001, and a major import with 13 percent of its total imports. The textile and apparel sector exports mostly finished goods, especially garments; most of its imports are believed to be inputs for use in the production of apparel for export.

Imports

Sri Lanka's imports of textiles and apparel rose from \$1.1 billion in 1997 to a high of \$1.2 billion in 2000, and then fell to \$903 million in 2001 (table F-10). The import decline reportedly continued into the first half of 2002.⁴² The major share of imports consisted of woven fabrics of cotton and manmade staple fibers and knitted fabrics, but Sri Lanka also imports 80 percent of the yarn and fabric inputs needed for the apparel industry. Sri Lanka imported \$27 million of textile fibers in 2001, down from \$30 million in 1997. The largest fiber suppliers to Sri Lanka were Korea, Indonesia, Australia, and Thailand. Most of the imports from these countries are of manmade fibers (MMF) and wool. The removal of tariffs on imports of apparel inputs has opened up the Sri Lankan market to fabrics from Southeast Asia, especially Korea, China, and India, and also the EU. India had long been Sri Lanka's largest foreign supplier of cotton yarns and fabrics, but although Sri Lanka's cotton fabric imports have grown over the years, India's share has declined steadily to less than 10 percent in 2000. According to industry sources, Sri Lankan importers expressed concern related to the consistency of fabric quality and delays in fabric shipments from India.⁴³

Exports

Sri Lankan exports of textiles and apparel increased by 15 percent during 1997-2001 to \$2.7 billion (table F-11). Apparel accounted for 93 percent of this total, as Sri Lanka exports more than 95 percent of its apparel production. The growth in textile and apparel exports abated in 2001 due to the slowdown in economic growth in major export markets, exacerbated by the terrorist attacks on September 11, 2001. Textile and apparel exports dropped by 22 percent in the first half of 2002, compared with the first half of 2001, attributable to lower demand in the United States and the EU. Sri Lanka's exports of textile fibers, mostly shipped to the EU and the United States, decreased by \$5 million during 1997-2001, to \$21 million.

⁴¹ All figures are United Nations data, unless otherwise stated.

⁴² "Sri Lanka's Fabric Imports Declined in First Half," found at www.emergingtextiles.com, retrieved Dec. 5, 2002.

⁴³ "Exploring Sri Lanka," *Asian Textile Business*, Apr. 2001, p. 81.

The top markets for Sri Lankan textile and apparel exports are the United States and the EU, which together accounted for 92 percent in 2001. The United States is the single largest market, importing \$1.7 billion of Sri Lankan textiles and apparel in 2001. Most of these imports were apparel, which grew 24 percent during 1997-2001 to \$1.6 billion. The EU, which removed quotas on Sri Lankan apparel in March 2001, imported \$783 million of Sri Lankan apparel in 2001, down from \$862 million in 2000. Sri Lanka's trade balance with the EU grew by 13 percent during 1997-2000, before falling by 8 percent, to \$728 million, in 2001.

According to official U.S. trade statistics, U.S. imports of textiles and apparel from Sri Lanka grew from 479 million SMEs in 1997 to 655 million SMEs in 2000, before dropping throughout 2001-02 to 559 million SMEs (valued at \$1.5 billion) (table F-12). Sri Lanka is the 17th largest supplier of textiles and apparel to the United States, with 1.5 percent of U.S. imports, down from a 2.1-percent share in 1997. Of the 70 percent of U.S. textile and apparel imports from Sri Lanka that were apparel, most are of cotton and MMF. The principal products are knitted and woven shirts and blouses, pants, skirts and dresses, coats, and brassieres. The 2001 trade-weighted average duty for goods imported into the United States was 9.1 percent for textiles and 16.2 percent for apparel.

One of the largest percentage declines in U.S. imports by product from Sri Lanka during 2002 occurred in MMF luggage. After increasing from \$78 million in 1997 to \$106 million in 2001, imports fell 53 percent to \$50 million in 2002. This product was integrated into the GATT regime on January 1, 2002, as quotas were removed. The decline in U.S. imports of MMF luggage from Sri Lanka may be partially attributed to competition from China, which significantly increased its MMF luggage exports to the United States.

Sri Lanka has shown a high degree of competitiveness in another product category that was integrated into the GATT regime in 2002—MMF brassieres. U.S. imports of Sri Lankan MMF brassieres have steadily increased from 488,802 units (\$30 million) in 1997 to 919,361 units (\$73 million) in 2001. U.S. imports of manmade fiber brassieres from Sri Lanka increased by an additional 30 percent in 2002, to 1.2 million units (\$80 million), even though imports from China have increased by more than 300 percent in this category. In a post-quota environment, industry sources expect Sri Lanka to be a niche supplier for women's intimate apparel such as bras and underwear, as well as specialty goods and hosiery. Other significant U.S. import increases from Sri Lanka took place in cotton robes and pajamas, silk pants, men's wool pants, and wool skirts; decreases occurred in wool suits, gloves and hosiery, women's woven silk shirts, and silk dresses. For the 2001 quota year, Sri Lanka filled five U.S. quota categories, including cotton knit shirts, sweaters, cotton and MMF pants, and cotton underwear, and came close to filling many others. However, U.S. imports from Sri Lanka are concentrated in categories where other major suppliers are restrained by quotas, which suggests that Sri Lanka will face significant competition in a post-quota environment.

Table F-10
Sri Lanka: Statistical profile of textile and apparel sector and foreign trade, 1997-2001

Item	1997	1998	1999	2000	2001
Number of establishments:					
Textiles	2,155	2,109	(¹)	(¹)	(¹)
Apparel	646	622	(¹)	(¹)	(¹)
Total	2,801	2,731	(¹)	(¹)	1,000
Number of workers:					
Textiles	142,364	156,519	(¹)	(¹)	(¹)
Apparel	64,112	71,285	(¹)	(¹)	(¹)
Total	206,476	227,804	(¹)	(¹)	450,000
Installed short-staple spinning capacity (1,000 spindles)					
	289.0	254.0	256.0	246.0	(¹)
Installed weaving capacities:					
Shuttleless looms (number)	1,000	1,100	1,100	1,300	1,500
Shuttle looms (number)	13,000	11,400	11,300	11,000	11,000
Production of textiles and apparel (million dollars)					
	1,500	(¹)	(¹)	(¹)	2,300
Total (million dollars)	1,500	(¹)	(¹)	(¹)	2,300
Foreign trade:					
Exports:					
Textiles (million dollars)	223.6	236.2	221.6	243.3	194.3
Apparel (million dollars)	2,167.4	2,278.8	2,306.3	2,617.5	2,553.6
Total (million dollars)	2,391.0	2,515.1	2,527.9	2,860.8	2,747.9
Imports:					
Textiles (million dollars)	1,034.8	1,034.4	1,022.8	1,101.1	856.2
Apparel (million dollars)	55.3	56.8	69.4	88.8	46.7
Total (million dollars)	1,090.0	1,091.3	1,092.1	1,189.9	902.9
Trade balance:					
Textiles (million dollars)	-811.2	-798.2	-801.1	-857.8	-661.9
Apparel (million dollars)	2,109.2	2,227.2	2,237.9	2,431.6	2,498.3
Total (million dollars)	1,301.0	1,423.8	1,435.8	1,671.0	1,845.0

¹ Not available.

Note.—Because of rounding, figures may not add to totals shown.

Source: Industry data compiled from the United Nations Industrial Development Organization, *International Yearbook of Industrial Statistics 2002*, and the Central Bank of Sri Lanka, found at <http://www.lanka.net/centralbank>; the International Textile Manufacturers Federation (Zurich), *International Textile Machinery Shipment Statistics*, vol. 25/2002, and selected back issues; and Geerdes International, Inc., Richmond, VA, facsimile to Commission staff, Feb. 4, 2003. Trade data are United Nations data as reported by Sri Lanka's trading partners

Table F-11
Sri Lanka: Exports of textiles and apparel, by selected markets, 1997-2001

Item and market	1997	1998	1999	2000	2001
	<i>Million dollars</i>				
Textiles (SITC 65):					
Quota markets:					
United States	81	96	106	119	103
European Union	81	72	41	39	28
Canada	2	1	3	3	2
Subtotal	163	169	150	161	133
All other:					
Korea	24	23	31	30	22
Maldiv Islands	8	10	12	15	14
Hong Kong	8	8	6	9	7
Other	20	26	23	29	18
Subtotal	61	68	72	82	61
Grand total	224	236	222	243	194
Apparel (SITC 84):					
Quota markets:					
United States	1,312	1,414	1,385	1,613	1,622
European Union	738	750	810	862	783
Canada	35	41	37	48	53
Subtotal	2,086	2,204	2,232	2,522	2,458
All other	82	75	74	96	96
Grand total	2,167	2,279	2,306	2,618	2,554
Textiles and apparel:					
Quota markets:					
United States	1,393	1,509	1,492	1,732	1,726
European Union	819	821	851	900	811
Canada	37	42	39	51	55
Subtotal	2,249	2,373	2,382	2,683	2,591
All other	142	142	146	178	157
Grand total	2,391	2,515	2,528	2,861	2,748
	<i>Percent</i>				
Share of exports going to quota markets:					
Textiles	73	71	68	66	69
Apparel	96	97	97	96	96
Average	94	94	94	94	94

Note.—Because of rounding, figures may not add to totals shown.

Source: Compiled from United Nations data.

Table F-12
Textiles and apparel: U.S. general imports from Sri Lanka, by specified product categories,¹
1997-2002

Cat.		1997	1998	1999	2000	2001	2002
No.	Description	<i>1,000 square meters equivalent</i>					
0	Textiles and apparel, total	479,375	527,636	559,945	655,436	631,465	559,150
1	Apparel	322,046	332,451	337,097	408,625	403,392	393,888
2	Textiles	157,329	195,185	222,848	246,811	228,073	165,261
11	Yarns	5,142	7,583	27,832	35,023	26,738	27,667
12	Fabrics	33,290	33,884	35,611	33,994	23,404	31,733
14	Other miscellaneous articles	118,897	153,717	159,405	177,793	177,930	105,861
30	Cotton textiles and apparel	191,037	197,864	202,641	208,660	215,120	217,543
31	Cotton apparel	163,622	164,983	167,392	174,902	192,518	191,626
32	Cotton textiles	27,415	32,881	35,248	33,758	22,602	25,917
40	Wool textiles and apparel	1,414	1,346	1,196	2,392	2,867	2,728
60	Manmade-fiber textiles and apparel	283,292	321,238	346,332	433,653	404,276	331,801
61	Manmade-fiber apparel	154,323	159,690	159,200	220,715	199,281	192,754
62	Manmade-fiber textiles	128,968	161,549	187,132	212,938	204,994	139,047
80	Silk blend/veg fiber textiles/apparel	3,632	7,188	9,776	10,732	9,201	7,077
237	Playsuits	5,077	4,287	3,667	1,794	1,924	561
239	Babies' apparel	11,973	13,019	12,839	14,213	20,023	15,185
334	Other cotton coats, men/boys	5,556	5,940	6,564	4,958	5,378	8,206
335	Cotton coats, women/girls	6,572	6,389	3,284	2,320	3,946	5,406
336	Cotton dresses	2,790	5,570	7,706	6,727	6,741	9,930
338	Cotton knit shirts, men/boys	6,574	6,489	5,239	6,144	7,666	6,385
339	Cotton knit shirts, women/girls	2,876	3,747	4,587	5,321	6,917	6,999
340	Cotton not knit shirts, men/boys	24,738	32,758	26,336	24,794	30,323	24,211
341	Cotton not knit blouses	7,409	7,914	16,748	17,493	12,784	16,345
342	Cotton skirts	3,828	3,502	4,397	6,730	3,930	8,894
347	Cotton trousers, men/boys	13,154	10,795	12,630	13,497	16,205	12,432
348	Cotton trousers, women/girls	15,117	15,120	15,692	15,696	16,934	20,561
350	Cotton robes	483	620	317	375	1,532	6,071
351	Cotton nightwear	7,002	6,523	5,719	5,141	7,583	12,823
352	Cotton underwear	7,365	4,151	6,454	8,086	11,954	10,516
359	Other cotton apparel	36,123	31,037	26,994	27,804	22,815	16,874
634	Other manmade coats, men/boys	28,489	26,066	16,493	24,702	27,933	32,035
635	Manmade-fiber coats, women/girls	18,615	17,582	14,736	15,456	20,533	18,694
636	Manmade-fiber dresses	9,668	13,914	14,471	12,693	13,962	13,962
638	Manmade knit shirts, men/boys	5,153	4,797	7,442	9,850	6,557	7,092
639	Manmade knit shirts, women/girls	3,313	4,758	5,698	6,559	4,770	6,158
640	Manmade not knit shirts, men/boys	959	808	2,880	1,842	3,205	3,000
641	Manmade-fiber not knit blouses	5,380	7,085	4,767	8,258	7,481	6,700
642	Manmade-fiber skirts	3,318	5,454	7,618	7,169	6,447	6,161
647	Manmade-fiber trousers, men/boys	9,614	9,771	5,941	10,036	10,410	9,098
648	Manmade-fiber trousers, women/girls	7,382	8,303	8,438	11,578	11,575	11,705
649	Manmade-fiber brassieres	1,955	2,844	2,889	3,350	3,677	4,766
650	Manmade-fiber robes	4,396	4,912	4,821	6,176	6,082	6,423
651	Manmade-fiber nightwear	10,745	12,052	11,318	12,704	15,147	14,081
652	Manmade-fiber underwear	7,995	7,342	8,069	7,857	12,740	12,259
669	Other manmade-fiber manufactures	57,972	82,243	63,727	80,610	89,572	48,719
670	Manmade-fiber handbags/luggage	42,137	52,249	73,054	75,293	70,424	39,110

¹ To administer the U.S. textile and apparel quota program, articles are grouped under 3-digit category numbers, which cover many 10-digit statistical reporting numbers under which goods are classified from statistical purposes in the Harmonized Tariff Schedule of the United States (HTS). The 1-digit and 2-digit numbers represent specific levels of import aggregation for articles covered by the quota program (e.g., the number "1" represents total imports of apparel, while "31" represents total imports of cotton apparel).

Source: Compiled from official statistics of the U.S. Department of Commerce, found at <http://otexa.ita.doc.gov>.

